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Підручник призначений для вивчення англійської мови за професійним спрямуванням для студентів вищих навчальних закладів I–III рівнів акредитації зі спеціальностей "Сестринська справа", "Лікувальна справа", "Акушерська справа", "Медико-профілактична справа", "Лабораторна діагностика", "Фармація", "Стоматологія ортопедична".

Підручник складається з трьох частин, що включають низку занять, передбачених навчальними програмами. У кожному занятті пропонується певна ситуація, у якій може опинитись медпрацівник у процесі практичної діяльності: спілкування з пацієнтами, лікарями, медперсоналом; обстеження хворих і догляд за ними; ознайомлення з медичним обладнанням тощо. Крім тематичних текстів та граматичних вправ у підручнику подано завдання для самостійної позааудиторної роботи студентів, тестові завдання для рубіжного та тематичного контролю знань, граматичний довідник та медичний словник-мінімум. Для спеціальності "Акушерська справа" окремо розроблено заняття з тем акушерсько-гінекологічного спрямування.

У підручнику використано сучасні оригінальні тексти з англійських та американських видань, підібрано найрізноманітніші види вправ, діалоги, рольові ситуації. У додатках є список неправильних дієслів, модальних дієслів та їх еквівалентів; поурочні словники спеціального курсу складаються з тематичної лексики з латинсько-грецько-українськими еквівалентами. Професійна спрямованість збірника допоможе викладачам та студентам впевнено вживати медичну термінологію.

Над підготовкою матеріалів також працювали викладачі В.В. Гундяк, В.В. Заливанський, І.В. Подчос, О.О. Стрижалова.

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Speaking. About Myself.
Grammar. Спонукальне англійське речення. Відмінювання іменників і займенників. Утворення множини іменників, що закінчуються на *-s* (читання)

Заняття 2 30

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Grammar. Артикль. Наказові речення. Рід іменників.
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Grammar. Альтернативні питання та їх інтонація. Особові займенники у називному і об'єктному відмінках. Прийменники місця і напрямку.
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Grammar. Спеціальні питання. Питальні слова. Присвійні займенники у залежній і абсолютній формах. Прийменниковий додаток. Родовий відмінок іменника.
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ПЕРЕДМОВА

Сучасний етап розвитку міжнародних відносин в Україні потребує докорінного перегляду процесу викладання іноземних мов у вищих навчальних закладах. Цілком очевидно, що підручники, якими досі користувалися для вивчення іноземних мов, не тільки застаріли щодо науково-технічного змісту, але й не можуть сформувати у майбутніх спеціалістів навичок усного та письмового спілкування з іноземними колегами. Жоден з підручників для вищих медичних закладів освіти I–III рівнів акредитації і не мав за мету розвиток навичок усного мовлення.

Основна мета цього підручника – оволодіння професійною англійською мовою в чотирьох видах мовленнєвої діяльності: говорінні, читанні, аудіюванні та письмі за допомогою найрізноманітніших (біля 30 видів) вправ, тестових завдань, діалогів, ситуацій, тематичних текстів та матеріалів, пов'язаних із майбутньою професією медика.

Розділи, із яких складено підручник, включають теми повсякденного спілкування, догляду за хворими, професійні теми анатомічного та клінічного змісту, що передбачає інтеграцію як із дисциплінами гуманітарного циклу, так і з фундаментальними та клінічними дисциплінами.

Підручник складається з фонетичного курсу, методичних розробок занять, які розділені на три частини, граматичного довідника, медичного словника-мінімуму і списку використаної літератури.

Фонетичний курс (заняття 1–6) передбачає ознайомлення з правилами читання та вимови англійських звуків за знаками транскрипції; оволодіння технікою читання на основі сталих звуко-буквених відповідностей та правильної конструкції виразу; засвоєння лексики та автоматизацію найпростіших структур.

Основні теми об'єднані у три частини, що складаються з окремих логічно завершених і взаємопов'язаних уроків.

Перша частина, "Introduction", (заняття 7–20) включає теми загально-медичного спрямування, такі як: "Ми вивчаємо анатомію", "Про пульс і тиск", "Перша медична допомога", "Здоровий спосіб життя", "Вітаміни" тощо, а також граматичні вправи, що відповідають граматичним темам занять, та блоки завдань для самостійної роботи.

Друга частина, "Medical Service", (заняття 21–40) містить теми про догляд за хворими: "Хвороби та їх симптоми", "Предмети догляду за хворими", "На прийомі у лікаря", "Інфекційні хвороби дорослих та дітей", "У зубному кабінеті", "Фармакогнозія", "Аптека", "Акушерство та гінекологія", "Комп'ютер для майбутнього медика" та інші, а також тестові завдання для рубіжного контролю знань.

Третя частина, "Human Body Systems", (37 занять) включає вивчення систем органів людини з анатомічної та патологічної точок зору: "Клітина", "Тканини", "Скелет", "М'язи", "Суглоби", "Шкіра", "Серце та кров", "Лімфатична система", "Імунітет", "Дихальна система", "Система травлення", "Нервова система", "Органи чуття", "Ендокринні залози", "Сечовидільна система", "Репродуктивна система жінки та чоловіка". У цих заняттях нова лексика подана з транскрипцією, українсько-латинсько-грецькими еквівалентами, тексти доповнені анатомічними малюнками, таблицями, схемами, професійними виразами, фонетичними та граматичними вправами, діалогами, текстами і завданнями для самостійної роботи, що поглиблять знання студентів з фахової підготовки; кожне заняття має відповідну ситуацію.

Деякі заняття складаються з пізнавальних та науково-популярних текстів зі спеціальності, історії медицини, охорони здоров'я в Україні та Великій Британії тощо. Для спеціальності "Акушерська справа" додатково розроблено дев'ять акушерсько-гінекологічних тем, що розміщені після теми "Жіноча репродуктивна система". Також запропоновано варіанти тематичного контролю знань і вмінь студентів із вивченого матеріалу.

Усі вправи підібрано так, щоб студенти з різним рівнем мовної підготовки могли їх виконати.

У кінці підручника розміщено короткий граматичний довідник із додатками та медичний словник-мінімум.

При укладанні підручника використано різну літературу: підручники, розмовники, словники, граматичні довідники, посібники, анатомічні атласи, книги для читання для студентів-медиків, словники-довідники, статті українських та зарубіжних видань, матеріали інтернету, методичні розробки викладачів іноземних мов Гайсинського медичного коледжу.

Підручник має електронну версію, що дає можливість застосовувати інтерактивну дошку, мультимедійний проектор, комп'ютер та інші технічні засоби навчання.

Підручником можуть користуватися як студенти, так і викладачі.

ВСТУПНИЙ ФОНЕТИКО-ОРФОЕПІЧНИЙ КУРС

1. Вступ

Основні завдання фонетичного курсу:

– оволодіння вимовою англійських звуків;

– оволодіння технікою читання на основі створення сталих звуко-буквених відповідностей та правильної інтонаційної організації виразу.

Разом з тим, передбачається засвоєння лексики, а також автоматизація найпростіших структур.

2. Звуки і букви

Англійський алфавіт містить 26 букв: 6 голосних і 20 приголосних, що передають 44 звуки. Деякі букви можуть позначати кілька звуків. Для передачі окремих звуків використовують буквосполучення. Різні букви та буквосполучення можуть позначати один і той самий звук. Іноді одне буквосполучення дає різні звучання. Для вивчення вимови у фонетиці англійської мови використовують транскрипцію.

3. Алфавіт

Aa [ei]	**Nn** [en]
Bb [bi:]	**Oo** [əʊ]
Cc [si:]	**Pp** [pi:]
Dd [di:]	**Qq** [kju:]
Ee [i:]	**Rr** [ɑ:]
Ff [ef]	**Ss** [es]
Gg [ʤi:]	**Tt** [ti:]
Hh [eiʧ]	**Uu** [ju:]
Ii [ai]	**Vv** [vi:]
Jj [ʤei]	**Ww** ['dʌblju:]
Kk [kei]	**Xx** [eks]
Ll [el]	**Yy** [wai]
Mm [em]	**Zz** [zed]

4. Транскрипція

Транскрипція – це система знаків, кожен із яких передає тільки *один* звук. Транскрипція показує, як вимовляється слово, тобто з яких звуків воно складається.

Традиційні знаки англійської транскрипції:

Приголосні		**Голосні**	
Знак транскрипції	**Приклад**	**Знак транскрипції**	**Приклад**
[p]	pen	[i:]	meet
[b]	bee	[i]	sit
[t]	ten	[e]	letter
[d]	dog	[æ]	bag
[k]	king	[ɑ:]	park
[g]	go	[ɒ]	stop
[ʧ]	cheese	[ɔ:]	morning
[ʤ]	jump	[ʊ]	book
[f]	fat	[u:]	blue
[v]	very	[ʌ]	nut
[θ]	three	[ɜ:]	bird
[ð]	they	[ə]	sister
[s]	sad	[ei]	table
[z]	zoo	[əʊ]	nose
[ʃ]	she	[ai]	time
[ʒ]	pleasure	[aʊ]	now
[h]	hot	[ɔi]	boy
[m]	milk	[iə]	dear
[n]	name	[ɛə]	bear
[ŋ]	song	[ʊə]	sure
[l]	let	[aiə]	tired
[r]	red	[aʊə]	our
[j]	yes		
[w]	want		

5. Класифікація звуків

Звуки діляться на голосні і приголосні. Голосні вимовляються без будь-якої перепони, (голосові зв'язки вібрують, язик піднімається вище чи нижче у передній, середній чи задній частині ротової порожнини в залежності від голосної). Шість голосних літер

передають двадцять голосних звуків, що протиставляються за довготою/короткістю. Від голосних звуків залежить зміст слова:

sit [sit] – сидіти і seat [si:t] – сидіння,
bed [bed] – ліжко і bad [bæd] – поганий,
deer [diə] – олень і dare [dɛə] – наважуватися.

При вимові приголосних звуків потік повітря зустрічає часткову чи повну перепону. Тут важлива позиція м'якого піднебіння (опущене воно чи підняте), язика, губ та гортані. В процесі вимови різних звуків може брати участь кінчик язика, його середня чи задня частини. За місцем утворення перепони приголосні можуть бути зубними, альвеолярними, палатальними (середня частина піднебіння) та заальвеолярними.

Слід пам'ятати, що англійські приголосні звуки ніколи не пом'якшуються і в кінці слова не оглушуються – вимовляються чітко і ясно.

6. Інтонація

Необхідно не тільки правильно вимовляти окремі звуки, але й пам'ятати про наголос та інтонацію. Під інтонацією, чи мелодією, мають на увазі пониження чи підвищення тону в процесі мовлення.

Кожна мова має свою мелодику. В англійській мові є дві основні інтонаційні моделі: спадна (tune one) і висхідна (tune two). Якщо стрілочка, що стоїть перед останнім наголошеним складом, спрямована донизу – інтонація спадна, якщо вона показує догори – інтонація висхідна:

I am a ↓student. Are you a ↑student?

Спадна мелодія найчастіше вживається у стверджувальних і наказових реченнях, у спеціальних запитаннях і окличних реченнях, а висхідна – у загальних питаннях, проханні, при переліку:

Kate is ↓fifteen.
Do you speak ↑English?
↓Open the door!
May I ask you a ↑question?
I have a ↑father, a ↑mother, ↑two brothers and a ↓sister.

7. Наголос

Кожна мова має свій характерний ритм. В англійському реченні наголошені склади здебільшого вимовляються через однакові проміжки часу. Наголошеними, як правило, можуть бути іменники, прикметники, основні дієслова, числівники, прислівники, питальні та вказівні займенники.

Наголос ставиться не на голосну, як в українській мові, а перед наголошеним складом і позначається знаком (′):

a table [ə′teibl] – стіл.

Службові слова (прийменники, артиклі, сполучники) майже завжди вимовляються без наголосу.

В англійській мові дуже багато односкладових слів, у яких визначення наголосу не потрібне. У двоскладових словах наголос переважно падає на перший склад, якщо голосна входить до кореня слова. Префікси дуже рідко бувають наголошеними, отож, якщо в слові є префікс, то наголос звичайно падає на другий склад, тобто на корінь. У багатоскладових словах наголос в основному падає на третій склад з кінця слова:

man ['mæn] – чоловік; unknown [ʌn'nəʊn] – невідомий; difficult ['difikəlt] – важкий.

Читання голосної залежить у більшості випадків від типу складу, у якому вона знаходиться (у відкритому/закритому, наголошеному/ненаголошеному).

8. Типи складів

Як зазначалось вище, читання голосної залежить від її положення щодо інших букв. В англійській мові, на відміну від української, де існують два типи складів – відкритий і закритий, є чотири типи складів:

1-й тип – голосна у відкритому складі. Голосна читається так, як в алфавіті, крім літери *y* [wai], яка читається як [ai]:

a [ei], e [i:], i [ai], o [əʊ], u [ju:], y [ai].

Відкритим склад буває:

1) в односкладових словах, що закінчуються на голосну: *he, no, be*;

2) коли за наголошеною голосною йде приголосна (крім *r*), а завершує слово "німа" буква *e*: *eve, mine, note*;

2-й тип – голосна у закритому складі, звук короткий:

a [æ]; e [e]; i [i]; o [ɒ], u [ʌ], e [i].

Голосні мають таке звукове значення в односкладових словах, які закінчуються на одну чи дві приголосних (крім *r*); у двоскладових словах вони відділені від наступної голосної двома приголосними (крім *r* + приголосна):

pin, inn, silly; cat, Ann, fatty; bed, end, splendid.

3-й тип – голосна з літерою *r* або голосна + *r* + приголосна (крім *r*). У такій позиції голосна довга: a [ɑ:], o [ɔ:], e [з:], u [з:], y [з:]. Наприклад, car [kɑ:] – машина; first [fз:st] – перший.

Якщо ж після голосної йде подвоєне *rr*, то голосна коротка:

carry ['kæri] – нести;
sorry ['sɒri] – вибачте,
hurry ['hʌri] – поспішати.

4-й тип – голосна + *r* + голосна. У такій позиції звучить дифтонг з переходом у [ə]: a [ɛə]; e [iə]; i [aiə]; o [ɔ:]; u [jʊə], [uə]; y [aiə]. Якщо в кінці слова є "німа" *e*, то *r* не читається:

Mary ['mɛəri] – Мері;
care [kɛə] – доглядати, піклуватися;
fire [faiə] – вогонь;
pure [pju:ə] – чистий.

Голосна	1-й тип складу	2-й тип складу	3-й тип складу	4-й тип складу
a [ei]	[ei] name	[æ] man	[a:] far, art	[ɛə] care
e [i:]	[i:] me, eve	[e] men, pen	[ɜ:] her, term	[iə] here
i [ai]	[ai] ice, fine	[i] if, film	[ɜ:] first	[aiə] fire
o [eʊ]	[əʊ] no, home	[ɒ] not, hot	[ɔ:] or, for	[ɔ:] [ɔə] more, store
u [ju:]	[(j)u:] flue, tune	[ʌ] up, bus	[ɜ:] turn	[(j)ʊə] sure, pure
y [wai]	[ai] my, type	[i] myth	[ɜ:] myrtle	[aiə] tyre

9. Характеристика звуків

Приголосні звуки

Звуки [b, m, f, v] вимовляються з придихом, тобто з легким видихом. Вимова приголосних [d, t, n, l, s, z] відрізняється від української.

В англійській при вимові [d, t, n] кінчик язика загострюється і дотикається до альвеол: date, time, nine. Також кінчик язика притискається до альвеол при вимові звуків [s, z], спинка язика при цьому опускається: size, small, rose. (В українській мові кінчик язика при вимові цих звуків притискаємо до верхніх зубів). Звук [t] перед голосною на початку слова також вимовляється з придихом: today, take, tube. Приголосний [l] має два відтінки: в кінці слова і перед приголосною вимовляється більш твердо, а перед голосною [l] вимовляється твердіше, ніж українське [л']: late, ball, tablet.

Приголосні букви, як правило, мають одне звучання, але букви *c, g, th* можуть звучати неоднаково у різних позиціях:

cat [kæt] – city [ˊsiti]
game [geim] – age [eidʒ]
thin [θin] – this [ðis].

Подальша характеристика звучання приголосних покаже різницю українських та англійських звуків:

[h] – звук, що нагадує видих, але це не український [х]. Він утворюється в гортані, органи мовлення зовсім не напружені: home, he, hello.

[ʃ] схожий на [ш], але м'якший: shelf, she, shame.

[ʧ] – складний приголосний звук, що поєднує звуки [t] і [ʃ] і схожий на український [ч], але в англійській він твердіший, виразніший: change, child, children.

[ʤ] – складний звук. В українській є буквосполучення "дж", що схоже на англійське, але в українській вимовляється чітко кожен звук, в англійській же мові буквосполучення вимовляється як один звук: Jane, John, jam.

[ŋ] – задньоязичний звук, м'яке піднебіння опущене. В українській мові такого звука немає. Язик знаходиться в тому положенні, що й при вимові звука [r], але повітря проходить через ніс: long, morning, song.

[θ], [ð] на письмі передаються буквосполученням *th*. В українській таких звуків немає. Щоб правильно вимовити глухий [θ], слід злегка розімкнути зуби, просунути між ними кінчик язика, решту язика розрівняти так, щоб краї торкалися кутніх зубів, а повітря проходило через щілинку між верхніми передніми зубами і кінчиком язика. Губами до язика не торкатись. Голосові зв'язки у вимові цього звука участі не беруть. При вимові дзвінкого [ð] положення всіх артикуляційних органів таке ж саме, але голосові зв'язки задіяні: the [ðə], this [ðis], thing [θiŋ], thin [θin].

[g] вимовляється, як український [г]: game, great, green.

[j] – йотований звук, схожий на український, але вимовляється набагато легше: yes, yellow, yet.

[r] на український [р] не схожий зовсім, артикуляція інша: кінчик язика наближений до заальвеолярної частини, але її не доторкується, вібрації немає: red, rose, rise.

[w] – енергійний звук. Зуби не торкаються губ. Губи складаються на вимову звука [u:], тобто висунуті вперед, і швидко переходять у положення для вимови наступного голосного звука: wet, window, why.

[ʒ] схожий на український [ж]: usual, pleasure, vision.

Голосні звуки

[i:] – довгий звук [і]. Зуби оголені, губи розтягнуті в посмішку. Звук схожий на протяжний [і] в слові "іволга".

[i] – дуже короткий голосний. Вимовляється, як початок [i:].

[e] – короткий голосний. Губи злегка розтягнуті. Схожий на [е] в словах "зебра", "сет", "фетровий".

[æ] – короткий відкритий звук. Схожого звука в українській мові немає. Нижня щелепа різко опущена, кінчик язика на нижніх зубах. Язик вигинається дугою.

[ɒ] – короткий голосний. Положення губ, як для українського [а], але слід вимовляти [о]. Кінчик язика не торкається нижніх зубів. Губи не витягуються вперед.

[ɑ:] – довгий голосний. Вимовляється майже в гортані. Схожий звук ви вимовляєте при огляді горла лікарем.

[ʌ] – короткий голосний [а], вимовляється в середині порожнини рота.

[ɔ:] – довгий голосний [о]. Губи округлені, але не випнуті.

[u:] – довгий голосний [у]. Губи округлені, але не випнуті. Звук більш напружений, ніж український.

[ʊ] – короткий [у]. Звук напружений. Губи округлені, не випнуті; кінчик язика трохи відсунутий від нижніх зубів.

[ɜ:] – довгий голосний. Схожого звука в українській мові немає. Відстань між щелепами зовсім невелика. Язик лежить біля нижніх зубів, не напружуючись.

[ə] – нейтральний короткий ненаголошений звук між [а] і [е].

Дифтонги

[ei] – як український [ей] у слові "лейкоз". На письмі передається **a, ai, ay, ei, ey, ea.**
[ai] – як український [ай] у слові "стайня". На письмі передається **i, ie, ye.**
[aʊ] – як український [ау] в слові "раунд". На письмі передається **ou, ow.**
[əʊ] – як український [оу] в слові "клоун". На письмі передається **o, oa, ou, ow.**
[ɔi] – як український [ой] у слові "сойка". На письмі передається **oi, oy.**
[iə] – вимовляється як [і] з нейтральним [ə]. На письмі передається **eo, ere.**
[ɛə] – язик знаходиться на одному рівні. На письмі передається **are, air.**
[aiə] = [ai] + [ə]. На письмі передається **ire, yre.**
[aʊə] = [aʊ] + [ə]. На письмі передається **our, ower.**

10. Читання буквосполучень

Читання буквосполучень із голосною

Буквосполучення	Читання	Приклади
a + s + приголосна	[a:]	ask, fast, pass
a + l + приголосна – у закритому складі під наголосом	[ɔ:]	small, salt, tall
a + l + k (l не читається)	[ɔ:]	talk, chalk
wa, qua + r + приголосна (r не читається)	[ɔ:]	war, warm, quarter
wa, qua + приголосна (крім r, l)	[ɒ]	want, quantity
wa, qua – у відкритому складі	[ei]	wave, quake
ai, ay – під наголосом	[ei]	stain, day
au, aw	[ɔ:]	author, law
ea, ee	[i:]	sea, steel
ear – під наголосом, якщо за цим сполученням стоїть приголосна	[iə]	dear
ear – перед приголосною	[ɜ:]	learn, early
eer – під наголосом	[iə]	engineer
ew – якщо не стоїть після l, r, j	[ju:]	few, dew
i + ld	[ai]	mild
i + nd	[ai]	find
i + gh	[ai]	flight
o + ld	[əʊ]	old, gold
oo + k	[ʊ]	took, look
oo + приголосна (крім k)	[u:]	mood, shoot, foot
oa	[əʊ]	road, load
ou, ow	[aʊ]	out, town, loud
ou	[ʌ]	country
	[ʊ]	group
u – після r, l, j, а також перед голосною	[ʊ]	rule, blue, June
ui	[ju:]	suit
ui після r, l, j	[u:]	fruit, sluice, juice

Читання деяких приголосних і їх сполучень

Буква/буквосполучення	Читання	Приклади
c + e, i, y	[s]	place, pencil, icy
c – в інших випадках	[k]	crystal, cubic, can
g + e, i, y	[ʤ]	page, giant, Egypt
виняток:	[g]	get, give
g – в інших випадках	[g]	go, big, gave
j	[ʤ]	jet, just
s – у кінці слова, після голосної та дзвінкої приголосної, усередині слова між голосними	[z]	his, plans, because
th	[θ]	think, thin, thank
	[ð]	this, that
ch, tch	[ʧ]	inch, match
sh	[ʃ]	wish, she
ph	[f]	physics
w – перед r на початку слова не читається		write, wrong
qu	[kw]	quick, equipment
wh + голосна (крім o)	[w]	what, when, why
wh +o	[h]	who, whom, whose
ture – у ненаголошеній позиції	[ʧə]	lecture, culture
tion, ssion – у ненаголошеній позиції	[ʃn]	motion, session
ci + ненаголошена голосна	[ʃ]	social, electrician

11. "Німі" літери

"Німі літери" ("mute" letters), пишуться в слові, але не вимовляються:

b – у сполученні **bt**:
debt [det] – борг, заборгованість;
doubt [daʊt] – сумніватися.

b – у сполученні **mb**:
comb [kəʊm] – гребінець;
climb [klaim] – підйом, сходження.

e – в кінці слова, коли вона не єдина голосна в слові:
late [leit] – запізнюватись.

g – у сполученні **gn**:
foreign [fɔ:rin] – іноземний.

gh – у сполученнях **igh, ight, ough, augh**:
sigh [sai] – подих;
eight [eit] – вісім.

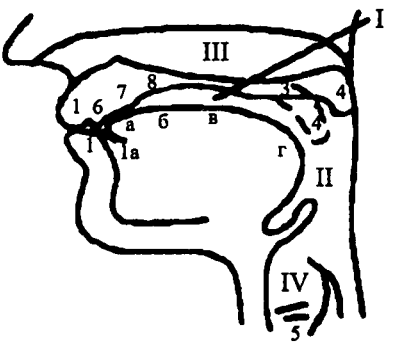
h – у сполученні **wh**, якщо наступна голосна не **o**:
when [wen] – коли;
why [wai] – чому.

k – у сполученні **kn** на початку слова:
know [nəʊ] – знати;
knew [nju:] – новий.

l – у сполученнях **alf, alk, alm, olk**:
talk [tɔ:k] – говорити;
half [hɑ:f] – половина.
n – у сполученні **mn**:
autumn [ɔ:təm] – осінь.
p – у сполученні **ps**:
psychology [sai'kɒlеʤi] – психологія.
t – у сполученні **stle**:
whistle ['wisl] – свисток, свист.
w – у сполученні **wr**:
write [rait] – писати,
а також у слові answer ['ɑ:nsə] – відповідь;
– у сполученні **wh**, якщо далі йде **o**:
who [hʊ] – хто.
u – у сполученні **gu + голосний**:
guess [ges] – здогадуватись, припускати.

12. Органи мовлення

I. Порожнина рота:
– губи;
– язик;
– альвеоли;
– тверде піднебіння;
– м'яке піднебіння.
II. Глотка.
III. Порожнина носа.
IV. Гортань



Схематичний розріз органів мовлення

Активні органи	Пасивні органи
1. Губи. 1а. Нижні зуби. 2. Язик: а) кінчик язика; б) передня частина; в) середня частина; г) задня частина. 3. М'яке піднебіння: – підняте, – опущене. 4. Язичок. 5. Голосові зв'язки.	6. Верхні зуби. 7. Альвеоли. 8. Тверде піднебіння. I. Порожнина рота. II. Зів. III. Порожнина носа. IV. Гортань.

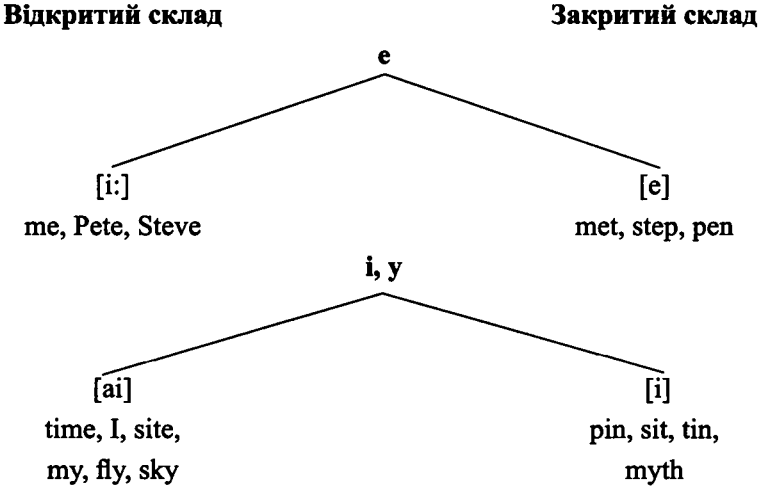
PART ONE. INTRODUCTION

ЗАНЯТТЯ 1 (LESSON ONE)

I	**Читання** голосних ***e, i, y*** у наголошеному і ненаголошеному складах, буквосполучення ***ee***	
II	**Читання** приголосних ***t, d, k, p, b, v, f, l, m, n, s, z***	
III	**Speaking**	About Myself
IV	**Grammar**	1. Спонукальне англійське речення (§1). 2. Відмінювання іменників і займенників (§2). 3. Множина іменників (§3)

I. Читання голосних звуків

1. Наголошений склад



2. Ненаголошений склад

e, i, y – [i]
be´come, ´typist, ´fifty

II. Читання приголосних звуків

Приголосні, які зустрічатимуться у вправах, читаються однозначно:
t [t], d [d], k [k], p [p], b [b], v [v], f [f], l [l], m [m], n [n], s [s], z [z].

Exercise 1. Прочитайте слова з літерою *e* у відкритому складі:

e [i:] me – мені, мене
be – бути
Eve – Єва
even – навіть

Exercise 2. Прочитайте слова з буквосполученням *ee*:

ee [i:]

see – бачити	feet – відчувати
sleep – спати	seem – здаватися
feet – ступні	feed – годувати
deep – глибокий	seed – насіння
meet – зустрічати	keep – зберігати

Exercise 3. Прочитайте слова з літерою *e* у закритому складі:

e [e]

men – чоловіки	send – посилати	let – дозволяти
left – лівий	felt – відчув	fed – годував
ten – десять	best – найкращий	bed – ліжко
step – крок	end – кінець	set – набір
test – перевірка	tent – палатка	

Exercise 4. У кінці слова після короткого наголошеного голосного звук [s] передається подвоєнням *ss*, а звук [l] – подвоєнням *ll*; прочитайте, запам'ятайте правопис.

tell – розповідати	smell – запах
bell – дзвінок	sell – продавати
fell – впав	spell – писати по буквах
less – менше	dress – плаття

Exercise 5. Прочитайте пари слів. Не оглушуйте кінцеві дзвінкі.

send – sent	посилати – послав
led – let	привів – дозволяти
bed – bet	ліжко – заклáд, парі
tend – tent	намагатися – палатка
spend – spent	витрачати – витратив

Exercise 6. Прочитайте слова, звертаючи увагу на придих, із яким вимовляються [p, t, k] перед наголошеними голосними.

Pete – Піт	ten – десять
pen – ручка	tell – розповідати
tend – схилятися	keep – тримати, зберігати
speed – швидкість	spend – витрачати
stem – стебло	steel – сталь
peel – шкірка	tee – мішень

Exercise 7. Прочитайте слова з літерами *i, y* у відкритому складі:

i, y [ai]	time – час	line – лінія, рядок
	I – я	side – бік
	size – розмір	life – життя
	my – мій	type – тип, сорт; друкувати
	lie – лежати	site – місце
	fly – літати	fine – гарний
	dye – фарбник; фарбувати	mile – миля

Exercise 8. Прочитайте слова з літерами *i, y* у закритому складі:

i, y [i]	if – якщо	lift – ліфт; піднімати	lip – губа
	sit – сидіти	skin – шкіра	list – список
	film – плівка	in – в	visit – візит
	did – зробив	ill – хворий	risk – ризик
	kill – вбивати	fill – наповнювати	

Exercise 9. В англійській мові літера *l* передає сонорний звук і може утворювати склад із попередньою приголосною, слова типу *idle* і *middle* — двоскладові. Прочитайте:

idle – лінивий	little – маленький
title – заголовок, титул	middle – середина
stifle – душити	simple – простий

Exercise 10. Прочитайте слова, пам'ятайте, що наголос у двоскладових словах, як правило, падає на перший склад:

fifty – п'ятдесят
typist – друкарка
tennis – теніс
system – система

Exercise 11. Прочитайте слова зі звуками [i:, e, i]:

[i]	till – до (якоїсь пори)	[e] tell – розповідати
	lift – ліфт	left – лівий
	sit – сидіти	set – набір
	fill – наповнювати	fell – впав
[i:]	feel – відчувати	[i] fill – наповнювати
	feet – ступні	fit – підганяти, підходити
	sleep – спати	slip – помилка (у вимові)
	meet – зустрічати	miss – пропускати

Exercise 12. Прочитайте слова, перекладіть їх.

Self, let, bell, smell, did, speed, style, pelt, less, bite, bit, dye, mile, still, fly, list, tie, little, title, mill, been, tittle, it, side, seem, beetle, deed, is, mess.

Exercise 13. Згрупуйте слова з вправи 12 у дві колонки за типами складів: відкритим і закритим.

III. Speaking: About Myself

Exercise 1. Прочитайте і запам'ятайте наступні слова, словосполучення, вирази.

name [neim] ім'я
family name/surname — прізвище
patronymic [ˌpætrəˈnimik] по батькові
full name [ˌfʊlˈneim] повне ім'я
e.g. What is your name? – My name is Jack.
We named our baby Jane.
mother [ˈmʌðə] мати
father [ˈfɑːðə] батько
e.g. I live together with my mother and father.
parents [ˈpɛərənts] батьки
e.g. Everyone has two parents.
Your father and your mother are your parents.
grandfather [ˈgrænˌfɑːðə] дідусь
e.g. Your father's father is your grandfather.
I call my grandfather Grandpa.
grandmother [ˈgrænˌmʌðə] бабуся
e.g. Your father's mother is your grandmother.
Your mother's mother is your grandmother, too.
I call my grandmother Grandma.
brother [ˈbrʌðə] брат
sister [ˈsistə] сестра
son [sʌn] син
daughter [ˈdɔːtə] дочка
e.g. My parent's son is my brother.
My parent's daughter is my sister.
husband [ˈhʌzbənd] чоловік
e.g. My father is my mother's husband.
wife [waif] дружина, жінка
child [ʧaild] дитина
e.g. This girl is a little child.
children [ˈʧildren] діти
e.g. Children go to school.
aunt [ɑːnt] тітка
e.g. My father's sister is my aunt.
My mother's sister is my aunt, too.
uncle [ˌʌŋkl] дядько
e.g. This man is my father's brother. He is my uncle.
cousin [kʌzn] двоюрідний брат, двоюрідна сестра
e.g Bob and Mary are my aunt's children.
Bob is my cousin.
Mary is my cousin, too.
niece [niːs] племінниця, небога
e.g. Ann is her aunt's niece.
nephew [ˈnevjuː] племінник, небіж
e.g. Peter is his uncle's nephew.
mother-in-law [ˈmʌð(ə)rinlɔː] мати чоловіка (дружини)
e.g. The mother of my husband (wife) is my mother-in-law.
relatives [ˈrelətivz] родичі
e.g. These are my relatives: father, mother, grandmother, grandfather, grandson, granddaughter, son, daughter, wife, sister, uncle, aunt, niece, nephew.
in-laws [ˈinlɔːz] родичі жінки (чоловіка)
e.g. All relatives of my wife (husband) are my in-laws.
widow [ˈwidəʊ] удова
widower [ˈwidəʊə] удівець
grown-up [ˈgrəʊnʌp] дорослий
adult [ˈædʌlt, əˈdʌlt] дорослий
e.g. He is already an adult.
(to) bring up [briŋˈʌp] виховувати
e.g. We must bring up our children.
character [ˈkæriktə] характер
appearance [əˈpiər(ə)ns] зовнішність
profession [prəˈfeʃn] професія
occupation [ˌɒkjʊˈpeiʃ(ə)n] праця, робота
e.g. What is your occupation?
engineer [ˌenʤiˈniə] інженер
technician [tekˈniʃ(ə)n] технік
designer[diˈzainə]конструктор;проектувальник; кресляр; дизайнер
clerk [klɔːk] службовець
driver [ˈdraivə] водій, шофер
shop-assistant [ˈʃɒpəˌsistənt] продавець
book-keeper [ˈbʊkˌkiːpə] бухгалтер; рахівник
accountant [əˈkaʊntənt] бухгалтер
cashier [kæˈʃiə] касир
housewife [ˈhaʊswaif] домогосподарка
turner [ˈtɜːnə] токар
doctor [ˈdɒktə] лікар
worker [ˈwɜːkə] робітник
teacher [ˈtiːʧə] учитель
student [ˈstjuːd(ə)nt] студент
postgraduate [ˌpəʊstˈgrædjuit] аспірант
laboratory assistant [ləˈbɒrət(ə)riəˈsistənt] лаборант
milling-machine operator [ˈmiliŋməˈʃiːnɒpəˈreitə] фрезувальник

operator of electronic computers — оператор ЕОМ
plant [plɑ:nt] завод
e.g. I work at the plant.
office ['ɒfis] контора, заклад
hospital ['hɒspitəl] лікарня
e.g. He works at the hospital.
comprehensive secondary school [ˌkɒmpri'hensiv 'səkəndəri,sku:l] загальноосвітня середня школа
e.g. I finished a comprehensive secondary school.
specialized school ['speʃəlaizd,sku:l] училище
technical school ['teknikəl,sku:l] технікум
institute ['institju:t] інститут
e.g. I graduated from Kyiv Polytechnic Institute.
university [ˌju:ni'vɜ:siti] університет
married ['mærid] одружений(а)
e.g. I am married.
single [ˌsiŋgl] неодружений
divorced [di'vɔ:st] розлучений
orphan ['ɔ:fən] сирота

Exercise 2. Вивчіть словосполучення.

to work at a plant	працювати на заводі
to work in a hospital	працювати у лікарні
to work in an office	працювати у конторі
to finish comprehensive school	закінчити середню школу
to finish specialized school	закінчити училище
to finish technical school	закінчити технікум
to graduate from an institute	закінчити інститут
to graduate from a university	закінчити університет
to be an engineer	бути інженером
to be a student	бути студентом
to be a widow	бути вдовою
to be grown-up	бути дорослим
to be 18 years old	бути вісімнадцятирічним
to be younger	бути молодшим
to be older	бути старшим
to know foreign languages	знати іноземні мови
to know somebody	знати кого-небудь

Exercise 3. Побудуйте речення.

			Ukraine.
I			the USA.
He	am		England.
She	is	from	Canada.
We	are		France.
You			Italy.
They			Japan.
			Germany.

I		Ukrainian.
He		Russian.
She	study(ies)	English.
We	like(s)	French.
You	know(s)	Italian.
They		Japanese.
		German.

I		
He		comprehensive secondary school.
She	graduated from	the university.
We	finished	specialized school.
You		technical school.
They		the institute.

Exercise 4. Дайте відповіді на запитання.

1. Is your family big or small? 2. How many people are there in your family? 3. Who are they? 4. How old are your father and your mother? 5. How old are your sisters and brothers? 6. How old are you? 7. What does your mother do? 8. How many children does your aunt have? 9. Is your mother fair-haired? 10. What is your mother's name? 11. What is your profession? 12. Do you have many relatives?

Exercise 5. Доповніть речення, використовуючи слова з правої колонки.

My father's wife is my … .	
My parent's son is my … .	aunt
My parent's daughter is my … .	cousin
My mother's husband is my … .	father
My mother's father is my … .	brother
My father's sister is my … .	sister
My mother's brother is my … .	grandfather
My father's mother is my … .	uncle
My mother's sister is my … .	niece
My uncle's son is my … .	grandmother
My aunt's son is my … .	nephew
Peter is his uncle's … .	mother
Ann is her aunt's … .	

Exercise 6. а) Вкажіть слова, що відносяться до питань. б) Відтренуйте їх у бесіді, замінюючи слова і питання за зразком. Дайте відповідь.

Address	Where do you work?
Occupation	Where do you live?
Place of birth	Where were you born?
Business phone	What do you do?
Place of employment	What's your business phone number?

Model: *– What's your address?*
– I'm sorry, I don't understand.
– Where do you live?
– Oh, I see. 1415 Concord Avenue, Flat 20.

Exercise 7. Перекладіть українською.

1. He is nine years old. 2. She is sixteen years old. 3. I want to become a doctor like my father. 4. In the evening the family watches TV or listens to the radio. 5. His family consists of six persons. 6. Her family consists of three persons. 7. My brother wants to become an officer like our father. 8. We like our English lessons. 9. They like literature. 10. I want to become a teacher like my mother. 11. She is like her mother. 12. He is like his father. 13. You are like your mother.

Exercise 8. Розіграйте діалоги.

1

Ann: Is your family large?

Betty: It's not very large now: father, mother, my elder brother and his wife and me.

A.: So you've got a brother and a sister-in-law. How nice!

B.: Yes. And I have two sisters of my own. Both of them are married and live somewhere in the west.

A.: Have you got any nephews or nieces?

B.: Oh, yes, I've got two nieces. They are my eldest sister's daughters. I have a nephew as well. He is my elder sister's son. But I have never seen them, because they have never come to see me, nor have I ever gone to see them.

A.: So you aren't a very good aunt, are you?

B.: Sorry to admit it, but I'm not. However, I'm going to improve as soon as I finish school.

A.: Hell is paved with good intentions, you know.

B.: Ha, ha... And what about your family, is it large?

A.: Oh, ours is quite a numerous one: granddad and grannie, dad and mum, brother and sister, and their kids. My brother has a wife and two sons. My sister has a husband and three daughters.

B.: So you've got nephews and nieces, too. I wonder if you are a good aunt, eh?

A.: You'd better ask the children about that.

B.: Ok, I'll follow your advice.

2

Alex: Now, I'd like to know about your family.

Blair: Oh, my family is a very large one. I have a father, a mother, grandparents, two sisters and a brother.

A.: Do you all live together?

B.: Yes, we do, and it's a remarkable thing because we practically never quarrel.

A.: Besides your immediate relatives you must also have some uncles and aunts and some cousins.

B.: Yes, several. Every now and then they come to see us at our place or we go to see them.

A.: I wonder who does the cooking and looks after the house?

B.: It's all in the hands of my mother. Of course, my sisters help her. Now tell me something about your family.

A.: Well, as a matter of fact there is little to tell. I am an orphan and before I got married I used to live quite alone.

B.: So you are married! You have not told me anything about it!

A.: I got married two years ago. Didn't you hear about it?

B.: Have you any children?

A.: Yes, we've a fine little girl. Her name is Ann. Come and see us some time.

B.: Thank you ever so much. You also by all means come and see us. I'll be so glad to introduce you to all the members of my family.

A.: I'll certainly come. I'll be so glad to know them all.

Exercise 9. Перекладіть англійською.

1. Ваша родина велика? – Так. 2. Із скількох осіб вона складається? – Моя сім'я складається з п'яти осіб. 3. Чи є у вас брати та сестри? – Так, у мене є сестра та брат. 4. Хто веде господарство? – Бабуся. Мама та сестра допомагають їй. 5. Ваш батько робітник? – Ні, мій батько інженер. Він працює на заводі.

Exercise 10. Заповніть анкету.

Personal Information Sheet

Date _____
Name _____
Permanent Address _____
Tel.N: Home: _____ Business: _____
U.S. Citizen: Yes _____ No _____
If no, nationality _____
Date of Birth _____
(month) (day) (year)
Place of Birth _____
Occupation _____
Place of Work _____
Sex: M _____ F _____
Marital Status: Married _____ Single _____

Exercise 11. Поставте питання до тексту і перекажіть його.

About My Family and Myself

My name is Olena Sobko. I am seventeen years old. I am a student of a medical college. I want to tell you about my family. My family lives not far from our district center in a village. My parents have two kids besides me. Thus I have got an elder brother Oleg and a younger sister Ann. My sister is a school-girl. She is fourteen.

My brother is twenty-five already. He is a doctor. He is married. His wife is a doctor, too. They are four in the family, because they have twins – a son and a daughter. They are lovely babies of two years old.

My parents are not old at all. Daddy is fourty-seven and my Mum is fourty-five. My grandparents are already pensioners, but they are still full of life and energy.

I have many relatives on my mother's side: aunts, uncles and cousins.

My father is a farmer and my mother is a nurse. They like their work very much.

I am fond of reading books. I go in for sports. Especially I'm good in swimming.

In some years I'll graduate from the college. It is necessary today to be a good specialist. My future speciality is nursing, but I want to become a doctor like my brother.

IV. Grammar Exercises

Exercise 1. Прочитайте спонукальні речення нисхідним тоном.

Meet ↓Ted.	Meet ↓Ben.	Tell ↓Ted.
Tell ↓Ted.	Meet ↓me.	Tell ↓me.

Exercise 2. Напишіть транскрипцію іменників у множині.

Beds, visits, lines, sites, stems, steps, systems, misses, pills, sets, lists, seeds, pens, miles, films, times.

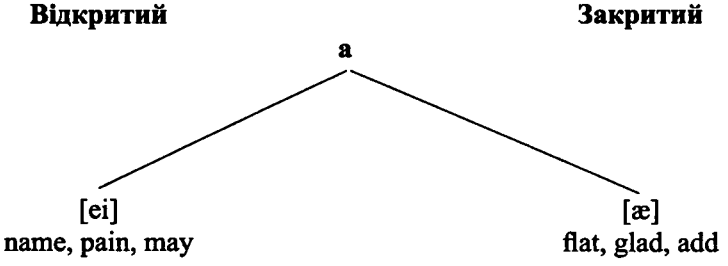
Exercise 3. Виберіть іменники із вправи 12 (с. 26), утворіть їх множину, запишіть і прочитайте.

ЗАНЯТТЯ 2 (LESSON TWO)

I	**Читання** голосної ***a*** у наголошеному і ненаголошеному складах, буквосполучень ***ai, ay, ei, ey, ea***	
II	**Читання** приголосних ***g, c, h, x***; буквосполучень ***ck, th, ch, tch, sh***	
III	**Speaking**	Elements of Communication
IV	**Grammar**	1. Артикль (§4). 2. Наказові речення (§5). 3. Рід іменників (§6)
V	**Самостійна робота**	Знайомство з різними людьми

I. Читання голосних звуків

1. Наголошений склад:



2. Ненаголошений склад:

a [ə] – aside [ə′said], data [′deitə]
ai, ay [ei] – play, rain, nail
ei, ey [ei] – vein, fey
ea [i:] – peace, seat, tea

II. Читання приголосних звуків

g – [ʤ] перед **i, e, y**: age, gin, gym.
g – [g] решта випадків: glad, god, gun.
c – [s] перед **i, e, y**: face, cycle, city.
[k] решта випадків: cat, cut, act.
ck – [k] back, black, clock.
th – [ð] між голосними і у всіх службових словах: the, that, this.
[θ] решта випадків: thick, thin, teeth.
ch, tch – [ʧ]: cheap, each, match.
sh – [ʃ]: she, fish, shame.
x – [ks]: text, six, mix.
Літера **h** [eiʧ] читається [h]: he, him, hate.

Exercise 1. Прочитайте слова з буквою *c*; дотримуйтесь правил:

cell – клітина
cyst – кіста
clinic – клініка
talc – тальк
sick – хворий
victim – жертва
city – місто
neck – шия
cycle – цикл
cite – цитувати

(У ненаголошеному складі *e, y* читаються [i].)

Exercise 2. Прочитайте слова з буквою *g*; дотримуйтесь правил, вивчіть напам'ять винятки:

gym – спортзал
gel – гель
egg – яйце
gave – дав
gipsy – циган
leg – нога
gene – ген
big – великий

But! give [giv] давати
get [get] отримувати
begin [bi'gin] починати

Exercise 3. Прочитайте слова з буквою *a* у відкритому складі:

name – ім'я
make – робити
save – рятувати
stage – стадія
lake – озеро
late – пізній
age – вік
page – сторінка
state – держава
same – такий самий
date – дата
take – брати
pace – темп
plate – тарілка
game – гра
pale – блідий

Exercise 4. Прочитайте слова з буквосполученнями *ai, ay, ei, ey*:

pain – біль
day – день
aid – допомога
stay – залишатися

vein – вена
say – сказати
plain – ясний
pay – платити
veil – вуаль, завіса
may – могти
fey – приречений
gain – отримувати, виграти
play – грати, гра; п'єса
fail – не вдаватися

Exercise 5. Прочитайте слова з буквою *h*, робіть легкий придих:

hip – стегно
help – допомога; допомагати
his – його
hi – привіт
hill – гірка
hint – натяк
him – йому

Exercise 6. Прочитайте слова з буквосполученням *ea*, запам'ятайте винятки:

peace – мир
leave – залишати
team – група, команда
sea – море
peak – вершина
leak – просочуватися
tea – чай
means – засіб, засоби
meal – їжа
meat – м'ясо
speak – говорити
seat – місце

But! dead [ded] мертвий
death [deθ] смерть
deaf [def] глухий
head [hed] голова
heavy ['hevi] важкий (про вагу)
health ['helθ] здоров'я

Exercise 7. Прочитайте слова з буквою *a* в закритому складі ([æ]):

am – *(я)* є
and – і
cat – кіт
bad – поганий
black – чорний
stand – стояти
man – чоловік
back – спина; назад
as – як; оскільки
camp – табір
has – *(він, вона, воно)* має
gland – залоза
tag – ярлик
mass – маса
map – мапа
bag – портфель
plan – план
damp – вологий
mad – божевільний
tap – кран
lack – недолік
sack – мішок, сумка

Exercise 8. Прочитайте слова з буквою *x*, звертаючи увагу на наголошеність ([ks]) і ненаголошеність складів ([gz]):

text – текст
next – наступний
six – шість
sixteen – шістнадцять

sixty – шістдесят
fix – закріплювати
mix – змішувати

But! exam [ig'zæm] – екзамен
examine [ig'zæmin] – досліджувати, обстежувати

Exercise 9. Прочитайте слова з ненаголошеною буквою *a*:

a'gain – знову
at'tack – атака; напад (хвороби)
a'dmit – (*тут*) госпіталізувати
'data – дані
'infant – дитя
ac'cept – приймати

Артикль з іменником читається разом, наголос на нього ніколи не падає.

Exercise 10. Прочитайте сполучення слів. Слідкуйте за ритмом і злиттям:

a) a pen – ручка, an apple – яблуко, a bag – сумка, an egg – яйце;
b) a sick man, a sick infant, a big egg;
c) a man and a cat, an egg and an apple.

Exercise 11. Прочитайте слова з буквосполученням *th*. Запишіть їх у дві колонки за звучанням ([ð] і [θ]):

the – означений артикль (не перекладається)
thin – тонкий
teeth – зуби
they – вони
theme – тема
thick – товстий
death – смерть
this – цей, ця, це
thesis ['θi:sis] – теза
these – ці
health – здоров'я
that – той, та, те
them – їх, їм

Exercise 12. Прочитайте разом іменник із означеним артиклем:

[ðə]	[ði]
the name	the apple
the page	the aid
the man	the infant
the day	the egg
the theme	the attack

Exercise 13. Прочитайте слова з буквосполученням *sh* [ʃ]:

she – вона
shame – сором
finish – закінчувати
fish – риба
sheet – лист, аркуш; простирадло
shy – сором'язливий
shell – шкаралупа
shelf – полиця
shape – форма
shake – струшувати, збовтувати

Exercise 14. Прочитайте слова з буквосполученням *ch* [ʧ]:

chill – лихоманка	chicken – курча
speech – мовлення	chest – грудна клітка
chain – ланцюг	cheek – щока
cheese – сир	chin – підборіддя
match – сірник	fetch – приносити
chess – шахи	cheap – дешевий

Exercise 15. Прочитайте слова. Згрупуйте слова у чотири колонки за звуками [i:], [i], [e], [æ].

Lamp, feel, set, list, seat, bin, leg, back, fill, set, fan, left, lid, seat, let, lad, sat, Ben, Ted, bin, pin, been, least.

Артиклі, присвійні займенники та сполучники завжди ненаголошені і читаються разом з іменниками, що йдуть за ними. Чим більша кількість ненаголошених складів, тим швидше вимовляються службові слова

Exercise 16. Складіть речення, прочитайте їх, слідкуючи за суцільною вимовою наголошеного складу з попередніми і наступними ненаголошеними складами:

My	name is	Black.
		Steve.
His		Ben.

III. Speaking: Elements of Conversation

Exercise 1. Прочитайте і запам'ятайте наступні слова і вирази.

How do you do? [ˈhaʊduːjuːˈduː] Здрастуйте.
e.g. "How do you do" is a kind of greeting and not a question.
Good morning! [gʊdˈmɔːnɪŋ] Доброго ранку!
e.g. We say "Good morning" till 12 o'clock.
Good afternoon! [gʊdˈaːftəˌnuːn] Доброго дня!
e.g. We say "Good afternoon" after 12 o'clock.
Good evening! [gʊdˈiːvnɪŋ] Добрий вечір!
Hello! [həˈləʊ] Привіт! Алло!
Hi! [hai] Привіт!
How are you? [ˈhaʊɑːˌjuː] Як здоров'я?
fine [fain] добре
e.g. I am fine.
Good bye! [ˌgʊdˈbai] До побачення!
Good night! [ˌgʊdˈnait] На добраніч!
See you later! [ˌsiːjuːˈleitə] До зустрічі!

Thank you. [ˈθæŋkju] Дякую.
e.g. Thank you for your help.
glad [glæd] радий, задоволений
e.g. I am glad to see you.
introduce [ˌintrəˈdju:s] представляти
e.g. Let me introduce my husband to you.

Exercise 2. Вивчіть наступні вирази.

Not at all.	
It's all right.	Нема за що.
Don't mention it.	
You're welcome.	Будь ласка.
It's very kind of you.	Дуже люб'язно з вашого боку.

Exercise 3. Побудуйте речення.

Let me introduce	my friend my husband my wife	to you.	I We They He She	am are is	grateful obliged	to you.
Give my best regards to Say "Hello" to	your mother!					

Exercise 4. Заповніть пропуски необхідними словами з дужок.

1. I'm very much … to you. *(glad, delighted, obliged)* 2. Let me … my brother to you. *(see, appreciate, introduce)* 3. Please give your wife my … for the present. *(greetings, welcome, thanks)* 4. You are very … . *(thankful, kind, indebted)* 5. We say … in the evening. *(Good morning, Good evening, Good afternoon)*

Exercise 5. Перекладіть англійською.

1. Як ведеться вашим батькам? 2. Передайте їм вітання. 3. Із задоволенням. 4. Дякую, непогано. 5. Бувай, скоро побачимось.

Exercise 6. Підберіть синоніми до виділених слів.

1. I always say "**Hello**" when speaking on the phone. 2. I am **grateful** to you. 3. See you **soon**. 4. It's very **sweet** of you. 5. I am **glad** to meet your friend.

Exercise 7. а) Прочитайте і розіграйте діалоги.

1

Mary: Hi, Jane!
Jane: Hello, Mary! How are you?
Mary: Oh, not bad – a little tired. Jane, I'd like you to meet my brother.
John: Nice to meet you. My name is John.
Jane: Well, it is nice to meet you, John.

2

Peter: Hi, Maggie!

Maggie: Oh, Peter, hello, how are you? Look, I'm in a terrible hurry. The bank closes in fifteen minutes.

P.: Is your bank near here?

M.: Yes, it's only three bloks away.

P.: Get in my car, I'll give you a lift.

M.: This is so nice of you, Peter, thank you.

P.: Don't mention it.

3

б) Доповніть діалоги.

A: Hello, how are you?

B: … And what about you?

A: … And how's your sister?

B: … Could you give my regards to your husband?

A: … Thank you in advance.

B: … Bye-bye.

4

A: Good afternoon.

B: … Let me introduce my friend to you.

A: … It's very kind of you.

B: … You are welcome.

Exercise 8. Складіть діалоги, використовуючи наступні словосполучення.

1. Hello, hi, how are you, thanks, nice to meet you, I'm afraid, give him my regards, regards, see you soon.

2. Good morning, glad to meet you, how are things going, not too bad, you are very kind, what can I do for you.

Exercise 9. Розіграйте ситуації в парах.

1. You are introducing your new boyfriend to your sister.
2. You meet your pen friend you have never seen: you introduce yourself.

IV. Grammar Exercises

Exercise 1. Складіть наказові речення, прочитайте їх, дотримуючись нисхідної інтонації.

a) Take	my his a an this that	bag, pen, apple, text, egg, lamp,	please.

b) Give	me him them	five ten six	pens, eggs, apples,	please.
c) Send	them Ted Steve	six sixteen sixty	apples,	please.

Exercise 2. Визначте, у яких випадках при перекладі на англійську виділених іменників потрібно поставити неозначений артикль, а в яких – означений.

1. До гавані наближався теплохід. 2. Теплохід вже прибув. 3. День був чудовий. 4. Це був чудовий день. 5. Лист відправлений і телеграма також. 6. Вчора я отримав лист і телеграму від знайомих. 7. Я живу у великому будинку. 8. Будинок мені сподобався, а подвір'я – ні. 9. Книгу я прочитав із задоволенням. 10. Це книга чи журнал?

Exercise 3. Поставте замість крапок артиклі, де необхідно.

1. All … best. 2. You are … man I am looking for. 3.… island of Great Britian is washed by ... North Sea in … east and by … Atlantic Ocean in … west. 4. … Ukraine has become … sovereign state. 5. … Browns were not present there. 7. In … morning I have only … cup of tea. 8. … Thames is … main river of Great Britian. 9. I like to read … books at … home. 10. Mr. Black lives in … flat.

Exercise 4. Складіть із поданих нижче слів наказові речення. Перекладіть їх.

1. Room, open, the, door, that, of.
2. Up, pick, the, on, papers, floor, the, please.
3. Lie, never, tell.
4. Me, introduce, my, let, friend.

V. Independent Work: Introducing People

Exercise 1. Прочитайте і перекладіть текст.

Introducing People

There are some main rules of introduction which are useful to remember: men are introduced to women, young people to older ones, old friends to newcomers, and young girls to married people. Usually women are not presented to a man unless he is the Head of State or a member of the Royal Family. When introducing one says something like: "Mrs. Johnson, may I introduce Mr. Blake?" and then turning to Mrs. Johnson simply says "Mrs. Johnson". That is all that's necessary, but one can say a bit of information which will help the introduced people to start a conversation.

The usual response to the introduction is "How do you do?" which is a kind of greeting and not a question, and the best answer to it is "How do you do?". Sometimes one may say less formally "I am glad to meet you", "Happy to have met you" or just "Hello".

It is very good to add the name of the person introduced: "I am very glad to meet you, Mr. Sparks". If you do not remember the name, it is enough to ask "What was your name, please?" or "Could you repeat your name?". Men should stand when introduced, ladies may remain seated.

British and American people usually shake hands especially when formally introduced but they do not always shake hands with people they see often. When an Englishman passes a friend in the street he only touches his hat.

Usually they smile and say: "Good morning", "Good afternoon", "Good evening", "Hello" or "Hi".

When two businessman meet, they usually shake hands.

Exercise 2. Поставте питання до тексту.

Exercise 3. Попросіть одногрупника відповісти на ваші запитання.

ЗАНЯТТЯ 3 (LESSON THREE)

I	**Читання**	– букви ***r*** перед голосною, після голосної у наголошеному складі (третій тип складу); – буквосполучень голосних і приголосних: a) ***ass, ask, ast, aff***; b) ***alf, alm***; c) ***ign***; d) ***ild, ind***; – букви ***y*** перед голосною; – букви ***j*** перед голосною
II	**Speaking**	I Am a Student
III	**Grammar**	1. Дієслова ***to be, to have*** у часах групи Indefinite (§7). 2. Множина іменників (§8)
IV	**Самостійна робота**	Мій медичний коледж

I. Читання звуків

1. **r + голосна** = [r]: red, risk, rise.
2. **a + r** = [ɑ:]: arm, part, far.
3. **ass, ask, ast, aff, aft** = [ɑ:]: pass, past, after.
4. **alf, alm** =[ɑ:] (*l* не вимовляється): calf [kɑ:f].
5. **i + gh** = [ai]: sight, light, night, high.
6. **i + ld, nd** = [ai]: mild, kind.
7. **y + голосна** = [j]: yet, yard, yes.
8. **j** = [ʤ]: jam, Jane, jet.

Exercise 1. Прочитайте слова з приголосною *r*:

a) rain – дощ
red – червоний
rate – рівень, швидкість
[i:] read – читати
[e] read – читав
rat – пацюк
risk – ризик

b) free – вільний
tree – дерево
try – пробувати, намагатися
three – три
train – поїзд
fresh – свіжий
strip – вузька смужка; роздягатися

Exercise 2. Прочитайте слова з буквою *a* у третьому типі складу:

arm – рука
car – машина
large – великий
far – далекий
farm – ферма
dark – темний
army – армія
part – частина
start – старт; починати
hard – важкий
mark – оцінка; відзначати
scar – рубець

Exercise 3. Прочитайте слова з подвоєною *r*. Зважайте на те, що при подвоєнні *r* голосна читається за другим типом, тобто коротко, а *r* читається [r]:

cherry – вишня
carry – нести
berry – ягода
marry – одружуватись
merry – веселий

Exercise 4. Прочитайте слова з буквосполученнями з буквою *a*; звертайте увагу на її читання з різними приголосними:

glass – скло
pass – проходити; передавати
calm – спокійний
grass – трава
half – половина
task – завдання
balm – бальзам
past – минулий
cast – кидати
after – після
class – клас
last – останній
palm – долоня
fast – швидко
calf – теля; литка
ask – запитувати
vast – безкраїй, просторий
flask – флакон
mask – маска
staff – штат (співробітників)

Exercise 5. Прочитайте слова з буквосполученнями з буквою *i*. Слідкуйте за її вимовою з різними приголосними:

a) find – знаходити
kind – добрий; вид
blind – сліпий
bind – зв'язувати, бинтувати
mild – м'який
child – дитина
But! children – діти

b) light – світло
sight – погляд, зір
high – високий
night – ніч
fight – боротьба; боротися
tight – тісний
right – правий
flight – політ

Exercise 6. Прочитайте слова зі звуками [j], [ʤ]:

[j] yes – так
yell – кричати
yet – вже, ще
yeast – дріжджі
yard – подвір'я

[ʤ] jest – жарт
jelly – желе
jet – реактивний літак
jam – варення
Jane – Джейн

Exercise 7. Згрупуйте слова у три колонки за звуками [ai], [æ], [ɑ:]; прочитайте їх, перекладіть:

Flat, light, scar, after, mask, mad, flight, mild, past, bag, carry, farm, high, starch, child, marry, staff, blind, cat, sight.

Exercise 8. Вивчіть напам'ять форми дієслова *to be – бути* у теперішньому часі.

positive

I	**am**	(I'm)
he she it	**is**	(he's) (she's) (it's)
we you they	**are**	(we're) (you're) (they're)

negative

I	**am not**	(I'm not)
he she it	**is not**	(he's **not** or he **isn't**) (she's **not** or she **isn't**) (it's **not** or it **isn't**)
we you they	**are not**	(we're **not** or we **aren't**) (you're or you **aren't**) (they're or they **aren't**)

Exercise 9. Напишіть коротку форму дієслова *to be* (she's, we aren't, etc.).

1. he is _____*he's*_____
2. they are _____
3. she is not _____
4. it is_____
5. I am not_____
6. you are not_____

Напишіть повну форму (she is, we are not, etc.):

7. we aren't____*we are not*__
8. I'm_____
9. you're _____
10. they aren't _____
11. it isn't_____
12. she's _____

Exercise 10. Вставте *am, is, are.*

1. The weather *is* very nice today.
2. I _____ not tired.
3. This case _____ very heavy.
4. These cases _____ very heavy.
5. The dog _____ asleep.
6. Look! There _____ Carol.
7. I _____ hot. Can you open the window, please?

Exercise 11. Вивчіть дієслово *to have – мати* у теперішньому часі.

I	have	я маю
you		ти маєш
he	has	він має
she		вона має
it		воно має
we	have	ми маємо
you		ви маєте
they		вони мають

II. Speaking: I Am a Student

Exercise 1. Прочитайте і запам'ятайте слова.

student ['stju:dent] студент
e.g. I am a medical student.
My friend is a second-year student.
disease [di'zi:z] хвороба
e.g. There are many kinds of diseases.
to treat [tri:t] лікувати
e.g. I want to treat patients.
curriculum [kə'rikjuləm] навчальна програма
e.g. Our Medical College curriculum includes many subjects.
laboratory [lə'bɒrətəri] лабораторія
e.g. We conduct tests in modern laboratories.
medicine ['medsin] медицина
e.g. I study medicine to master the profession of a nurse.
Third-year students receive much knowledge of medicine.
science ['saiəns] наука
scientist ['saiəntist] учений, науковець
scientific [ˌsaiən'tifik] науковий
e.g. M.I. Pyrohov is a great scientist in medicine.
research [ri'sɜ:tʃ] науково-дослідний
e.g. Our teachers carry on research work.

Exercise 2. Вивчіть наступні вирази.

to be a nurse – бути медсестрою
to be a first (second, third)-year student – бути першо(друго-, третьо-)курсником
in two years – через два роки
to work hard (at) – наполегливо працювати (над)
our classes – наші заняття
two double classes of anatomy – дві пари з анатомії
to be going to – збиратися (щось зробити)
to gather – збиратися (разом)
to attend lectures, practical classes – відвідувати лекції, практичні заняття

Exercise 3. Дайте відповіді на запитання.

1. Are you a student of the Medical College?
2. Whose advice do you follow?
3. What department do you study at?
4. What kind of classes do you have?
5. What subjects do you study this year?
6. Is your higher school curriculum hard?
7. Where do you have your practical classes?
8. Do you get enough knowledge of medicine for your future work?
9. Do you attend lectures and practical classes every day?
10. Are you going to be an outstanding scientist in medicine?

Exercise 4. Утворіть прикметники від іменників за допомогою суфікса *-ic/-al.*

Model: *chemistry (хімія) – chemical (хімічний)*

botany (ботаніка) –
microbiology (мікробіологія) –
histology (гістологія) –
anatomy (анатомія) –
pharmacology (фармакологія) –
physiology (фізіологія) –
function (функція) –
education (освіта) –
profession (професія) –

Exercise 5. Замініть підкреслені слова чи вирази їх синонімами з вправ 1, 2.

1. Every Monday my friend is present at the Anatomy lecture.
2. Our students administer Chemistry tests in the laboratory.
3. He does everything to master English.
4. I am going to be busy studying at the Medical Higher Educational College.

Exercise 6. Прочитайте і розіграйте діалог з одногрупником.

A: I have just finished secondary school and I want to be a nurse.

B: That's a very good idea. You may study at our Medical College like I do.

A: What can you tell me about this Medical College?

B: Our College is one of the best in Ukraine. It trains nurses and medical assistants.

A: It must be pleasant to study here.

B: Certainly it is. We have well-equipped classrooms and laboratories.

A: Please tell me, what do you do after classes? Do you have time to go to the cinema or concerts?

B: Of course, I have. I go in for sports and read books after classes and I go to the cinema on my days off. Besides, I study English.

A: Do you know English well already?

B: No, I can't say that I do. But I'll do everything to master it.

Exercise 7. Прочитайте текст і перекажіть його англійською.

I Study at the Medical College

At first let me introduce myself. My name is Olena Sobko. I have finished secondary school. Now I am a student of the Medical College. I want to be a nurse. I will treat people and fight against different diseases.

My fellow students and I are second-year students. All of us attend lectures and practical classes regularly and never miss them. We do our home tasks at the library where we can use any textbook we need. The second-year curriculum includes many subjects. Anatomy is the most important subject this year. Our timetable includes four periods a day. During our practical studies we carry out experiments or tests in different laboratories. Today it is very important to study computer science and to do all operations with it.

Some of my fellow students are members of scientific circles. They spend much time on research work and get to know more about medicine and its problems.

All my spare time I spend with my friends. We go in for sports, discuss many questions, go to the cinema and arrange evening parties. The student's life is interesting.

Exercise 8. Ситуації для спілкування.

1. Розкажіть про свого товариша, використовуючи лексику:

to study in the second year, to want to become, to be a member of a scientific circle, to go in for sports.

2. Розкажіть про медичний коледж, використовуючи лексику та фотографії на сторінці 61:

to include, a curriculum, to take notes of a lecture, to attend practical classes, to live at a hostel, to be well-equipped, knowledge of medicine.

III. Grammar Exercises

Exercise 1. Вставте дієслова *to be* і *to have* у відповідній формі.

1. She … a schoolgirl last year.
2. I … many interesting textbooks in English.
3. We … Ukrainian students.
4. Anatomy … a difficult subject.
5. Our town … many schools.
6. He … a doctor at the hospital.

Exercise 2. Утворіть форму множини наступних іменників.

A subject, a book, a class, a dictionary, a shelf, a grown-up, a doctor, a nurse, a man, a tooth, a boy, a city, a lesson, a party.

Exercise 3. Доповніть речення,використовуючи *am/is/are*.

1. (my shoes very dirty) *My shoes are very dirty.*
2. (my bed very comfortable) _____

3. (your cigarettes in your bag) _____
4. (I not very happy today) _____
5. (this restaurant very expensive) _____
6. (the shops not open today) _____
7. (Mr. Kelly's daughter six years old) _____
8. (the houses in this street very old) _____
9. (the examination not difficult) _____
10. (those flowers very beautiful) _____

Exercise 4. Допишіть речення, використовуючи іменники в однині чи множині.

1. When did you have your English …?
2. I am fond of all Byron's …
3. I must translate a …
4. We can use new … and translate them with a …
5. I invite you to our …
6. I like my … very much.
7. There are … in the classroom.
8. I was asked by the … to tell some … about my … in English.
9. In the library you can find a lot of … on the problem.

dictionary
task
class
boy
exam
evening party
text
family
word
poem
book
teacher

IV. Independent Work: My Medical College

Exercise 1. Ознайомтесь з історією коледжу, переклавши текст.

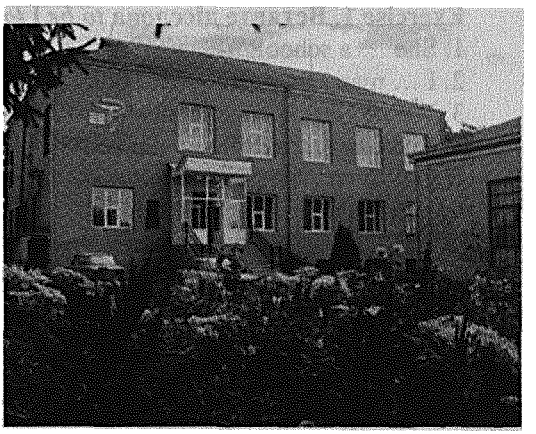
Haisyn Medical College

Soon our Medical College will celebrate its 80th anniversary.

Our College was founded in 1928 and it was a medical school for Jews.

The students paid money for their studying during the first year. The first director of the school was N.A. Polyakman. He made a great contribution to the development of the medical school. The first students graduated in 1931. Before the Great Patriotic War the College trained about one thousand specialists who took an active part in that War.

After the War our school began to train nurses, medical assistants and obstetricians.



Haisyn Medical College

Today more than 600 students study at the nursing, obstetric and medical assistant departmens. They listen to lectures and attend practical classes. We have well-equipped classes for studying general and specialized medical subjects.

Well-trained teachers and doctors teach students to be good specialists in their future profession.

Notes:
to attend lectures – відвідувати заняття
practical classes – практичні заняття
to be proud of smth – гордитися чимось
to make good progress in smth – робити успіхи в чомусь
specialized rooms – спеціалізовані кабінети
to be equipped with smth – бути обладнаним чимось

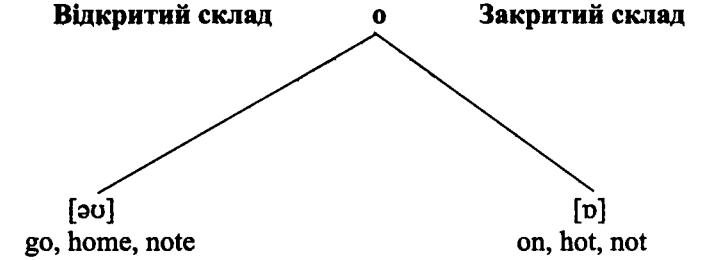
Exercise 2. Проведіть екскурсію рідним закладом, опишіть його.

ЗАНЯТТЯ 4 (LESSON FOUR)

I	**Читання**	– голосної ***o*** у трьох типах складів; – буквосполучень ***er, or*** у ненаголошеному складі; – буквосполучення ***old, oi, oy, al + приголосна***
II	**Speaking**	My Future Profession
III	**Grammar**	1. Вказівні займенники (§9). 2. Загальне питання та його інтонація (§10). 3. Особливості вживання іменників у множині та однині (§11). 4. Множина іменників латинського і грецького походження (§12)
IV	**Самостійна робота**	Де працює медсестра

I. Читання голосних звуків

1. Голосна **o** в наголошеному складі:



go, home, note — on, hot, not

2. У третьому типі складу **o** читається [ɔ:]: form, nor, lord.

3. Буквосполучення **or, er** у ненаголошеному складі читаються [ə]: paper, doctor, sailor.

4. **old** = [əʊld]: old, cold, hold.

5. **oa** = [əʊ]: boat, coal, toad.

6. **oi, oy** = [ɔi]: boy, voice, soil

7. **a + l + приголосна** (крім ***k***) = [ɔ:]: all, ball, false, hall.

8. **a + lk** = [ɔ:k]: walk, talk, chalk.

9. **ore, oor** = [ɔ:]: more, door, shore.

Exercise 1. Прочитайте слова з буквою *o* у відкритому складі:

no – ні
ago – тому
bone – кістка
nose – ніс
open – відкривати
tone – тон
close – закривати
rose – піднявся; троянда
go – йти
those – ті
node – вузол, потовщення
hole – дірка
home – вдома
toe – палець ноги

Exercise 2. Прочитайте слова з буквосполученням *old*:

old – старий
gold – золото
bold – сміливий
fold – складати
cold – холодний
hold – тримати
sold – продав

Exercise 3. Прочитайте слова з буквосполученням *oa*:

load – навантаження
toad – жаба
moan – стогнати
coat – пальто
road – дорога, шлях
soap – мило
boat – човен
coal – вугілля
foam – піна
loan – позичати

Exercise 4. Прочитайте слова з буквою o [ɒ] в закритому складі:

on – на
hot – жаркий, гарячий
not – не
stop – зупинити; зупинка
cross – перетинати
office – контора; офіс
dog – собака
drop – крапля
cod – тріска
box – коробка
top – верхівка
got – отримав
soft – м'який
nod – кивок
clot – згусток
frog – жаба
job – робота
dot – крапка

Exercise 5. Прочитайте слова, вкажіть тип складу у кожному слові:

a) go – tone – odd
no – note – not
so – smoke – on

b) top – torn – ton
spoke – sport – spot
cord – cot – cope
North – not – note
lot – lone – lord

c) note, lot, lone, nod, code, cot, tone, cope, dot, sock, hot, pope, doll, post, bone, sport, torn, corn, gorge, cork, or, fork

Exercise 6. Прочитайте речення із вказівними займенниками. Перекладіть їх. Слідкуйте за інтонацією.

This is a ↓bag.
That is a ↓map.
This is a ↓dog.
That is a ↓cat.

There are ´ten ↓bags.
Those are ´five ↓maps.
These are ´six ↓dogs.
Those are ´three ↓cats.

Загальне питання в англійській мові вимовляється з висхідним тоном.

Exercise 7. Прочитайте загальні питання (зі здивуванням).

Is this a ↑pen?
Is this a ↑table?
Is this a ↑bag?
Is this a ↑coat?
Are these pens ↑black?
Are those flags ↑red?
Are these boxes ↑large?
Is that car ↑far?
Are those pens ↑thin?
Is this man a ↑doctor?

Exercise 8. Прочитайте слова з буквою *o* у третьому типі складу:

for – для
horse – кінь
corpse – труп
or – чи
sort – сорт, тип
sport – спорт
report – доповідь
more – більше
shore – берег
store – запам'ятовувати; зберігати дані

form – форма, клас
forty – сорок
born – народитися
norm – норма
port – порт
short – короткий
organism – організм
floor – підлога, поверх
door – двері
before – перед

Exercise 9. Прочитайте буквосполучення *al* + *приголосна*. Зверніть увагу, де *l* читається, а де – ні:

all – усі
small – малий
call – викликати
stall – затримувати
false – помилковий
salt – сіль
stalk – стебло
talk – бесіда
ball – м'яч
fall – падати
chalk – крейда
tall – високий
also – також
gall – жовч

Exercise 10. Прочитайте слова з ненаголошеним [ə]:

order – наказ
letter – лист; буква
teacher – учитель
sister – сестра
enter – вхід; заходити
corner – куток
paper – папір
doctor – лікар
motor – мотор
cancer – рак

Exercise 11. Прочитайте слова з буквосполученнями *oi, oy*:

boy – хлопець
joy – радість
voice – голос
toy – іграшка
noice – голос, шум
coil – спіраль
moist – вологий
pointer – указка
soil – грунт
oil – нафта, масло
coin – монета
boil – кипіти
point – крапка
joint – з'єднувати; суглоб
poison – отрута

Exercise 12. Прочитайте речення з нисхідною інтонацією. Слідкуйте за читанням.

Model: *These ‿ are ↓glasses.*

These	are	↓ dishes.
		↓ pages.
Those		↓ boxes.
		↓ cases.
They		↓ bases.
		↓ cages.

Exercise 13. Прочитайте пари речень. Слідкуйте за інтонацією.

1. They are ↓ not ‿ pencils. They are ↓ pens.
2. Those are ↓ not ‿ cats. Those are ↓ dogs.
3. These are ↓ not ‿ teachers. These are ↓ doctors.

II. Speaking: My Future Profession

Exercise 1. Прочитайте і запам'ятайте слова.

nurse [nɜ:s] медсестра
e.g. She is a nurse at a hospital.
obstetrician, midwife – акушер
e.g. Obstetricians work in the gynecology department.
to treat [tri:t] лікувати
e.g. The doctor treats his patients.
to remember [rɪ'membə] пам'ятати
e.g. Remember these rules.
order ['ɔ:də] наказ, вказівка
e.g. Olena must follow the orders of the doctor.
ward [wɔ:d] палата
e.g. There were no patients in the ward.
advice [əd'vais] порада
e.g. The doctor's advice was always good for him.
noble ['neʊbl] благородний; шляхетний
necessary ['nesisəri] необхідний
medical assistant – фельдшер
e.g. Medical assistants helped the patient.
disease [di'zi:z] хвороба
e.g. This disease is not infectious.
treatment ['tri:tmənt] лікування
e.g. Treatment of people is the duty of doctors.
observations [ˌɒbzɜ:'veiʃnz] спостереження
e.g. These observationds are very important.
care [kɛə] догляд
e.g. They care for their parents.
calm [kɑ:m] спокійний
e.g. She must be calm.
profession [prə'feʃn] професія
important [im'pɔ:tənt] важливий
humanity [hju:'məniti] людство

Exercise 2. Вивчіть такі вирази:

to treat a patient – лікувати хворого
under special care – під спеціальним наглядом
to apply compress – накладати компрес
to apply cups – ставити банки
to apply mustard plasters – ставити гірчичники
to make injections – робити ін'єкції
to give medicines – давати ліки
things for nursing – предмети догляду
to carry out prescriptions – виконувати призначення
to take care of – доглядати
to be proud – гордитися
to be devoted – бути відданим
to be responsible for – відповідати за
to be kind, patient, attentive – бути добрим, терплячим, уважним

Exercise 3. Поєднайте слова, перекладіть словосполучення.

Adjectives (Прикметники)	*Nouns (Іменники)*
real	profession
noble	disease
necessary	college
mortal	nurse
medical	person
infectious	doctor

patient	patient
kind	people
contact	illness

Exercise 4. Придумайте речення зі словосполученнями, які ви утворили у Вправі 3.

Exercise 5. Доповніть речення.

1) The profession of the nurse is … .
2) A nurse must be … .
3) A nurse makes … .
4) A nurse gives … .
5) A nurse puts … .
6) A nurse takes care of … .
7) A nurse is responsible for … .
8) A nurse must have … .

Exercise 6. Замість крапок вставте необхідні слова.

1) The work of a nurse is … to people (presented, devoted).
2) The nurse … for patients (cares, looks).
3) She must apply … and … (medicines, cups, mustard plasters, injections).
4) The nurse must have enough … (books, magazines, knowledge).

Exercise 7. Перекладіть українською.

Why Become a Nurse?

Today's job market survivors have to be flexible, adaptable, and smart! They have to look at what jobs are available today and what will be tomorrow. We think the nursing profession can give you the adventure and a wide variety of exciting job opportunities which you are seeking.

Exercise 8. Прочитайте текст і поставте до нього питання.

The Work of a Nurse

You know I am a medical college student now. My future profession is nursing. The work of nurses is very important and necessary.

Every nurse must remember that there are no two identical people and that every patient will react to diseases in his own way. That's why each patient needs special care.

Observations of a nurse are also very important. The nurse can see any changes in the health of her patients. Her observations will help doctors to diagnose and treat the patients. In a hospital the nurse has a lot of duties and she works in many areas: in wards, laboratories, emergency department, etc.

In wards the nurse gives medicines, makes injections, applies cups and mustard plasters. She carries out all orders of doctors.

Every nurse must have enough knowledge of her work, because she must help people any hour of the day and night. She must take care of patients even if they have mortal infectious diseases.

The fact is that research work goes on not only in laboratories but also in hospital wards.

Every nurse must be a member of the clinical research team.

The life of nurses is devoted to people, they are always responsible for what they do.

Exercise 9. Ситуації для спілкування.

1. Розкажіть своєму товаришеві про свою майбутню професію медсестри.
2. Розкажіть подрузі про обов'язки медсестри у лікарні.
3. Розкажіть одногрупнику про обов'язки медсестри у поліклініці.
4. Розкажіть про діяльність медсестри, використайте наступну інформацію:

What is nursing?

* Nursing is a caring human service which recognizes that each person is unique, and has worth and dignity, as well as the right to make decisions about his own body.

* Nursing is constantly evolving, changing along with new developments in society, sciences and humanities.

* Despite the changing face of health care, nursing's goals of promoting health and providing care and support to people through all stages of life remain at its core.

III. Grammar Exercises

Exercise 1. Утворіть однину іменників, якщо вони її мають.

Armchairs, gymnastics, clothes, spectacles, photos, shorts, cows, schools, enemies, keys, kisses, wives, loaves, oxen, men, teeth, grapes, girls, series, riches, people, persons, athletics, news.

Exercise 2. Перекладіть збірні іменники, порівняйте з українськими.

many sheep or birds – flock
dogs and wolves – pack
sportsmen or other players – team
people in the church – congregation
a lot of books – library
soldiers – army
flowers or keys – bunch
insects – swarm
men who work on a boat or ship – crew
cattle (cows, bulls, antilopes) – herd
a lot of people in the street – crowd
battleships – fleet or navy
people watching or listening to smth – audience
rulers of the country – government
teachers, doctors – staff
relations between people – family
people of the same origin – race
nations under one ruler – empire
criminals – gang
fish – shoal

Exercise 3. Перекладіть речення англійською, пам'ятайте про іменники, що вживаються лише у множині.

1. Лікар попросив медсестру принести його окуляри. 2. Де мій пацієнт? 3. Ця тканина – чорна. 4. Вона запитала, де її джинси. 5. Цей виноград стиглий? 6. Його хоробрість відома всій армії. 7. Гроші – це товари, а товари – це виробництво. 8. Де ти купила ці колготки? 9. Та крейда біла чи сіра? 10. Це ті ж самі новини? 11. Медсестра взяла ножиці з полиці й подала лікареві.

IV. Independent Work: Where Do Nurses Work?

Exercise 1. Перекладіть текст.

Where Do Nurses Work?

In hospital – in many areas, such as: obstetrics (caring for child-bearing women and infants); medical surgical units (taking care of ill adults and children); emergency departments; etc.

In the community – jobs are increasing in community nursing, where nurses focus on health promotion, education, and illness prevention. These nurses get to visit the patient's world, where they see the "whole" person by looking at their living situation and lifestyle.

On-line – technology is now more portable and nurses can do more sophisticated assessments in the community by using video technology and computers and can provide complex nursing care to people in their homes.

In the North, overseas or in independent practice – nurses can work in the North, in the armed forces, and with international health organizations. Nurses who are self-directed and enjoy the challenge of independent practice excel in the areas.

Exercise 2. Подумайте і опишіть українською мовою всі можливі аспекти діяльності медсестри (акушерки, фельдшера) в сучасному суспільстві.

ЗАНЯТТЯ 5 (LESSON FIVE)

I	**Читання**	– голосної ***u*** у відкритому і закритому складах; – голосних ***e, i, u, y*** у третьому типі складу; – буквосполучень ***oo, ear*** перед приголосною; ***ou, ow***; – букв ***q*** і ***w***; – буквосполучення ***ng, nc, nk***
II	**Speaking**	Nurse's Working Day
III	**Grammar**	1. Альтернативні питання та їх інтонація (§13). 2. Особові займенники (§14). 3. Прийменники місця і напрямку (§15)
IV	**Самостійна робота**	Флоренс Найтінгейл

I. Читання звуків

1. Відкритий склад **Закритий склад**

[ju:] ◄——— **u** ———► [ʌ]

use, tube, pupil up, but, nut

2. **er, ir, ur, yr** = [ɜ:]: first, burn, her.
3. **oo** = [u:] перед будь-якою приголосною, крім **r**: soon, room, food;
   oo = [ʊ] перед **k**: look, book, took.
4. **ear** = [ɜ:] перед приголосною: learn, earth, early
5. **ou, ow** } [aʊ]: loud, house, now
   [əʊ]: grow, blow, soul
6. **q** завжди вживається з буквою **u** = **qu** [kw]: quite, queen, quick.
7. **w** = [w] перед голосною: we, will, wet;
   wh = [w] перед голосною: when, where, why;
   wh = [h] перед **o**: who, whole, whom.
8. **nk, nc** = [ŋk]: drink, uncle.
9. **ng** = [ŋg]: single.

Exercise 1. Прочитайте слова з буквосполученням *oo*:

oo + k = [ʊ]	book – книга hook – гачок shook – розтрусив look – погляд; дивитись took – взяв cook – кухар; готувати їжу	oo [u:]	too – також soon – скоро food – їжа moon – місяць cool – прохолодний
But!	good [gʊd] – хороший, foot [fʊt] – нога		blood [blʌd] – кров flood [flʌd] – паводок

Exercise 2. Прочитайте слова з буквою *u* у відкритому складі:

[ju:] ◄——— **u** ———► після **r, l, j** [u:]

use – використовувати	rule – правило
mute – німий	June – червень
unit – одиниця	July – липень
cube – куб	lucid – прозорий
cue – натяк; репліка	blue – голубий
tube – пробірка	crude – необроблений
duty – обов'язок	lunar – місячний
human – людський	junior – молодший
student – студент	Jupiter – Юпітер
pupil – учень	plumy – покритий пір'ям
tulip – тюльпан	ruse – хитрощі
immune – імунний	rude – різкий, брутальний
institute – інститут	glue – клей; клеїти

Exercise 3. Прочитайте слова з буквою *u* в закритому складі – [ʌ]:

but – але	nut – горіх
cut – різати	jump – стрибати; стрибок
us – нас, нам	just – справедливий; щойно
dust – пил	sun – сонце
must – повинен	summer – літо
gun – рушниця	drugs – ліки; наркотики
luck – успіх	bus – автобус

Exercise 4. Запам'ятайте, якщо за буквою *o* йдуть букви *u, v, n, m, th*, вона вимовляється [ʌ]:

come – приходити	son – син
love – кохання; любити	other – інший
money – гроші	mother – мама
Month – місяць	Monday – понеділок
London – Лондон	about – про

Exercise 5. Прочитайте слова, порівняйте вимову звуків [u:, ʊ, ju:, ʌ, ɑ:], згрупуйте їх у стовпчики за вимовою.

Duty, must, mast, food, pull, loop, drug, cast, much, mute, unit, pool, mark, duck, use, but, boot, took.

Exercise 6. Прочитайте слова з буквою *w*:

we – ми	wife – дружина
wave – хвиля	well – добре
week – тиждень	wall – стіна
walk – прогулянка	west – захід

wh + голосна, крім o = [w]:

when – коли	whim – забаганка
why – чому	wheel – колесо
which – котрий	wheat – пшениця
while – у той час як	whence – звідки
white – білий	whether – чи
whisk – змахувати	wheezy – хрипкий

wh + o = [h]:

who [hu:] – хто, whose [hu:z] – чий, whom [hu:m] – кому, кого, whole [həʊl] – весь, whoop [hu:p] – крик, сильний кашель

Exercise 7. Прочитайте контрастні пари слів зі звуками [w, v]:

vine – виноградна лоза	wine – вино
vent – вхідний отвір	went – пішов
very well – дуже добре	every week – щотижня

Exercise 8. Прочитайте слова з буквами *i, e, u, y* у третьому типі складу, слідкуйте за правильною вимовою [з:]:

bird – пташка
verb – дієслово
first – перший
third – третій
turn – повертати
her – її
nerve – нерв
firm – твердий
term – семестр; термін
surgeon – хірург
thirty – тридцять
thirst – спрага
nurse – медсестра
hurt – поранити
serve – служити
curb – приборкувати
burn – опік
girl – дівчинка
person – особа
firm – фірма

Exercise 9. Прочитайте і запам'ятайте слова з буквосполученням ea + r = [з:]:

earn – заробляти
early – рано
heard – чув
Earth – земля

But! heart [hɑ:t] – серце

Exercise 10. Прочитайте слова, слідкуйте за правильною вимовою звука [ŋ]:

a) *ng* = [ŋ]:
long – довгий
strong – сильний
hang – вішати
lung – легеня

b) *ing* = [ŋ]:
ring – дзвонити; обручка
wing – крило
heating – нагрівання
evening – вечір
sing – співати
thing – річ
beginning – початок
morning – ранок

c) *ng* всередині слова = [ŋg]:
finger – палець
single – єдиний; один
jungle – джунглі
angle – кут
English – англійський
hunger – голод

d) *nk, nc* = [ŋk]:
drink – пити
think – думати
link – з'єднувати; ланка
tank – танк; цистерна
sink – тонути
thank – дякувати
uncle – дядько
zinc – цинк

Exercise 11. Прочитайте слова, запам'ятайте, як вони читаються:

ou, ow = [aʊ]
out – з
loud – голосний
house – будинок
round – круглий

ou, ow = [əʊ]
soul – душа
know – знати
row – ряд
tomorrow – завтра

mouse – миша	follow – йти за; супроводжувати
south – південь	window – вікно
how – як	grow – рости
now – тепер	blow – дути
town – містечко	yellow – жовтий

Exercise 12. Прочитайте загальні питання з означенням іменника.

'Is this a ↑blue pencil?	↓Yes, it↓ is. It's a ↓ blue pencil.
'Is this a ↑red pen?	↓No, it is ↓not. It's a ↓blue pen.

Альтернативне питання – це питання вибору, яке має особливу інтонацію: перша половина (до частки **or**) вимовляється висхідним тоном, а друга – низхідним; перед **or** при вимові робиться пауза.

Exercise 13. Прочитайте альтернативні питання та відповіді на них. Зберігайте інтонацію:

Is this a ↑table | or a ↓desk?	It's a ↓table.
Is this a ↑book | or a ↓box?	It's a ↓box.
Is that a ↓child | or a ↓man?	It is a ↓child.
Are these ↑cups | or ↓glasses?	These are ↓glasses.
Is this a ↑brown | or ↓a red pen?	It is a ↓red pen.
Are those ↑big | or ↓small bags?	They are ↓big bags.
Is the bird on the ↑tree | or on the↓bush?	It's on the↓tree.

Exercise 14. Використовуючи моделі-питання із Вправи 13, придумайте свої приклади, запишіть їх, відтренуйте інтонацію.

Exercise 15. Запишіть транскрипцію наступних слів.

Mute, too, rule, must, book, hook, why, weak, white, who, doom, soon, immune, nerve, early, third, string, thing, moon, market, spring, cool, turn, quick, think, beginning, out, how, loud, mail, follow, thousand, might, strain, fat, gall, flint, damp, spray, gelid, god, gain, us, fog, come, other, ask, must, sink, link, quite, long, chalk, grind, walk.

II. Speaking: Nurse's Working Day

Exercise 1. Прочитайте і запам'ятайте наступні слова.

department [di'pɑ:tment] відділення
e.g. There are many departments in our regional hospital.
surgical ['sɜ:ʤikəl] хірургічний
e.g. He is a nurse at the surgical department.

therapeutic [θərə'pju:tik] терапевтичний
ward [wɔ:d] палата; палатний
e.g. She is a ward nurse.
prescription [prisk'ripʃn] припис; рецепт
e.g. Here is the doctor's prescription.
temperature ['tempriʧə] температура
bed patient [bed'peiʃnt] лежачий хворий
e.g. I'll give a newspaper to the bed patient.
condition [kən'diʃn] стан; умова
e.g. He asked about their condition.
examine [ig'zæmin] оглядати
e.g. The doctor examines his patients.
mistake [mis'teik] помилка
e.g. She made many mistakes in the test.

Exercise 2. Вивчіть напам'ять наступні вирази.

to work at a hospital – працювати в лікарні
a ward nurse – палатна медсестра
to take temperature – вимірювати температуру
a temperature chart – температурний лист
to write down – записувати
to do quickly and quietly – робити швидко і спокійно
to air the ward – провітрити палату
to change sheets – змінити простирадла
to come true – здійснитися
to learn by practice – вивчити на практиці

Exercise 3. Складіть речення.

1)

The nurse The medical assistant The doctor	must be	kind. attentive. patient. careful.

2)

The nurse	gives takes puts makes carries out	temperature. cups. doctors' prescriptions. medicines. injections.

Exercise 4. Замість крапок вставте необхідні слова, подані нижче.

1. I work at … . 2. I am … . 3. In the morning nurses give patients … . 4. The doctor … his patients every morning. 5. The doctor prescribes them some … and … . 6. An attentive nurse tries to see any … .

(changes, medicines, examines, a nurse, a hospital, injections, drugs)

Exercise 5. Напишіть графічний диктант, користуючись позначками "–" ("так") і "|" ("ні").

1) The nurse prescribes medicines to patients. 2) The nurse cares for her patients. 3) The nurse doesn't read the order of the doctor before she gives medicines. 4) The nurse must report

her mistake to her friends. 5) The nurse isn't rude when she speaks with patients. 6) She can gossip (пліткувати) about her patients.

Exercise 6. Поставте альтернативні питання до наступних речень.

1. My father is a doctor.
2. I am a student of the medical college.
3. The nurse is a kind and patient person.
4. The bed patient is in the ward.
5. You are doctors.
6. My friends are students of the medical college.

Exercise 7. Прочитайте і розіграйте діалоги в парах.

1 **Nurse:** Good morning!
Patient: Good morning, Mrs. White!
Nurse: How are you today?
Patient: Thanks, no changes.
Nurse: Let's take your temperature... Well, it is normal.
Patient: Will you tell the doctor about my condition?
Nurse: Yes, of course. Don't worry. Everything will be all right.

2 **Doctor:** Good morning, Mrs. Brown.
Nurse: Good morning, doctor.
Doctor: I'd like to know how my patients are doing.
Nurse: Well, there are no bed patients in my ward. In the morning I carried out all your orders.
Doctor: What can you say about Mr. Smith? Is his temperature still high?
Nurse: No, it's normal today. He is better.
Doctor: So, let's go and see.

3 **Old doctor:** You have cured (вилікували) your patient. What is there to worry about now?
Young doctor: I don't know which of the medicines cured him.

Exercise 8. Прочитайте і перекажіть текст.

In a Hospital

Let me introduce my friend Nina. She is already a nurse at a hospital. She works at the therapeutic department. Nina is one of the best ward nurses. Everything she does in the ward she does quickly and quietly.

Work at the hospital begins early in the morning. At 6 o'clock the nurses begin to take the patients' temperature. They write it down in temperature charts. Then the nurses give the patients medicines and carry out other prescriptions of the doctors.

Besides they open the windows and air their wards. If there is a bed patient in the ward, the nurse takes special care of him. She brings a basin and washes the patient's face and hands, brushes his sheets or changes them. Then the nurses give injections to the patients.

When doctors come and begin to examine their patients, every ward nurse tells the doctor about the condition of her patients. Nina is very attentive. She tries to observe any changes in

the patient's condition. Nina is especially patient with old people. She never hurts (ображати) her patients with rude (грубий) words.

I want to be like Nina. I like my future profession and I know that much of the nurse's work can be learnt by practice. That's why I often help Nina at the hospital.

Exercise 9. Розмовні ситуації.

1. Опишіть роботу медсестри вранці.
2. Розкажіть, якими якостями повинна володіти медсестра.
3. Переконайте товариша, що ваша майбутня професія найнеобхідніша сьогодні.

III. Grammar Exercises

Exercise 1. Замініть виділені слова займенниками.

1) We carry out experiments in laboratories.
2) We shall study anatomy.
3) Some of my fellow students are busy with research work.
4) There are 25 students in my group.
5) My sister wants to be a doctor.
6) I don't see my sister often.

Exercise 2. Дайте відповіді на альтернативні питання.

1) Are you a student of the nursing or medical assistant departament?
2) Is your friend a first-year or second-year student?
3) Is your brother a doctor or a teacher?
4) Are you sixteen or seventeen years old?

Exercise 3. Виберіть правильну форму особового займенника.

1) She often sees *(he, him)* in the hospital.
2) He teaches *(we, us)* English at school.
3) He explains the rules to *(I, me)* very often.
4) I always help *(they, them)* with translations.
5) My mother wants to talk to *(he, him)*.

IV. Independent Work: Florence Nightingale

Exercise 1. Ознайомтесь із життям та діяльністю Флоренс Найтінгейл, прочитавши текст. Поставте 10 питань до тексту.

Florence Nightingale was one of the greatest women in the history of England. She was born on May 12, 1820, in the Italian city of Florence after which she was named. Florence was a highly educated woman. She spoke Italian, French and German with ease.

During her childhood and youth she was chiefly interested in taking care of poor people in hospitals; her dream was to become a nurse. In her days, nursing was done only by women of

the lowest moral class. In fact, when women were charged in the police courts they were often given the choice of going to prison or to hospital service.

Her parents were horrified and did all they could to prevent it, but Florence was not to be turned aside. Whenever she was abroad she visited hospitals, read books on nursing, reports of medical societies, histories of hospitals. She spent some weeks as a sister in a hospital in Paris and three months in a nursing school in Germany. When Florence was 34, she became superintendent of an "Establishment for Gentlewomen during Illness". She had been there a year when the Crimean War broke out. One of the hospitals where injured soldiers received treatment during the war was in a place called Scutari. That's where 39 British nurses led by Florence Nightingale arrived from London in 1854.

In less than twelve months, Florence Nightingale and her 38 nurses turned Scutari into a clean, well-organised hospital.

Florence Nightingale often worked for twenty-four hours on end dressing wounds, helping surgeons in their operations, easing the pain of the sick, comforting the dying. Every night, carrying a little oil lamp to light her way, she walked by the beds, four miles of them. To the soldiers she was "The Lady with the Lamp", and they worshipped her.

Florence Nightingale changed the whole system of the hospital organization of the army. She wrote books on nursing. She started the Nightingale Training School for nurses at St. Thomas's Hospital. She changed the whole idea of hospital planning and is the founder of modern nursing.

In 1907 she was given the Order of Merit, the highest civil honor the Government can give and the first ever given to a woman. Three years later Florence Nightingale died.

Notes:

Florence ['flɒrəns] Флоренс
Nightingale ['naitingeil] Найтінгейл
Scutari [skʊ'tari] Скутарі
Order of Merit ['ɔ:derəv'merit] орден "За заслуги"
chiefly ['ʧi:fli] головним чином
taking care of – доглядаючи
charge [ʧɑ:ʤ] звинувачувати
horrify ['hɒrifai] викликати жах, лякати
prevent [pri'vent] запобігати, перешкоджати
turn aside – усувати(ся)
injured ['inʤəd] поранений
treatment ['tri:tmənt] лікування
on end – підряд, без перерви
dressing wounds ['wu:ndz] перев'язуючи рани
surgeon ['sɜ:ʤən] хірург; військовий лікар
worship ['wɜ:ʃip] боготворити

Exercise 2. Назвіть видатних жінок нашої країни, країн світу. Чим вони прославились?

Exercise 3. Дайте відповіді на запитання.

1. Why did Nightingales name their daughter Florence?
2. Was Florence Nightingale a highly educated woman?
3. What was Florence's dream?
4. Why were her parents horrified by her dream?
5. In what ways had she prepared herself for nursing?
6. What did Florence and her nurses do at the hospital in Scutari?
7. Why was Florence called "The Lady with the Lamp"?
8. What kind of woman was Florence Nightingale?

Exercise 4. Доповніть речення.

1. Florence Nightingale was …	a) she worked at the hospital in Scutari.
2. She was born …	b) one of the greatest women.
3. Her dream was …	c) the founder of modern of nursing.
4. Florence was not …	d) "The Lady with the Lamp".
5. During the Crimean War …	e) on May 12, 1820.
6. To the soldiers she was …	f) to be turned aside.
7. She wrote …	g) books on nursing.
8. Florence Nightingale is …	h) to become a nurse.

ЗАНЯТТЯ 6 (LESSON SIX)

I	**Читання**	– голосних у четвертому типі складу; – буквосполучень ***air, eir, ear, eer***; – букви ***w*** у буквосполученнях ***wa, war, wor, aw***; – буквосполучень ***kn, ph***; – голосних буквосполучень ***ey, au, ou, our***
II	**Speaking**	English for Modern Medical Specialists
III	**Grammar**	1. Спеціальні питання (§16). 2. Питальні слова (§17). 3. Присвійні займенники (§18). 4. Прийменниковий додаток (§19). 5. Родовий відмінок іменника (§20)
IV	**Самостійна робота**	Англійська мова як засіб міжнародного спілкування

I. Читання

1. **a + re** = [ɛə]: care, fare, spare;
   e + re = [iə]: here, severe, mere;
   y + re, **i + re** } [aiə]: tyre, fire, entire;
   u + re = [ju:ə]: cure, pure, secure.
2. **air, eir** = [ɛə]: chair, their, fair;
   eer, ear = [iə]: near, beer, ear.
3. Читання **w** у буквосполученнях:
   w + a = [wɒ]: wash, water, wad;
   w + ar = [wɔ:] war, warble, ward;
   w + or = [wɜ:]: word, work, worse;
   wr на початку слова = [r]: write, wrong, wrist.

4. **kn** на початку слова = [n]: knife, know, knew;
   ph на початку слова = [f]: photo, phone, phrase.
5. **ey** в кінці слова = [i]: money, valley, honey;
   aw = [ɔ:]: draw, saw, raw;
   au = [ɔ:] (у словах латинського і французького походження):
   fault, autumn, applaud;
   ou = [ʌ] (у словах французького походження): touch, double, country;
   ou + r = [ɔ:] your, four, course.

Exercise 1. Прочитайте слова з буквою *a* в різних буквосполученнях, пам'ятайте правила читання:

are [ɛə]	**air** [ɛə]
care – турбота	air – повітря
rare – нечастий	chair – стілець
share – частина, частка	stair – сходинка
dare – відважитись	hair – волосся
prepare – готувати	fair – світлий, справедливий
compare – порівнювати	**But!**
declare – заявити	there – там
dispare – відчай	where – де, куди

Exercise 2. Прочитайте слова з буквою *e* у різних буквосполученнях, пам'ятайте правила читання:

here – тут	dear – дорогий
mere – простий	bear – носити
sphere – сфера, куля	hear – слухати, чути
severe – суворий, сильний	clear – ясний
interfere – заважати	tear – сльоза
period ['piəriəd] – період	near – близький
cheer – вітати	ear – вухо
beer – пиво	fear – страх

Exercise 3. Прочитайте слова з буквою *u* у різних буквосполученнях:

pure – чистий	secure – забезпечувати
cure – вилікувати	endure – терпіти, зносити
during ['dju:əriŋ] – під час	procure – забезпечувати
January ['ʤænju:əri] – січень	

Exercise 4. Прочитайте слова з буквами *i, y*. Порівняйте звучання у різних типах складів:

ire, yre [aiə]	**i, y [ai]** (відкритий склад)
fire – вогонь	die – помирати
quiet – тихий, спокійний	lie – лежати

tire – стомлюватися
wire – дріт
entire – весь, повний
tyre – шина, покришка
inspire – надихати
retire – іти у відставку
desire – бажання
dire – страшний
mire – трясовина
tie – краватка; зв'язувати
fine – гарний
quite – досить
igh – [ai]
high – високий
higher – вищий
might – міць, могутність
light – світло
right – правий

Exercise 5. Прочитайте слова. Порівняйте вимову буквосполучень та їх правопис:

a) [æ]
ash – попіл
ant – мурашка
have – мати
match – сірник
gas – газ
tag – ярлик

[ɒ]
wash – мити
want – хотіти
was – був
watch – годинник
watt – ват
wander – бродити

b) [ɑ:]
arm – рука
hard – важкий
army – армія
mark – оцінка

[ɔ:]
warm – теплий
war – війна
ward – палата
warn – застерігати

c) [ɔ:]
fork – виделка
storm – шторм, гроза
horse – кінь
stork – лелека
sore – хворий
torn – розірваний
scorn – зневага

[ɜ:]
work – робота; працювати
worm – черв'як
worse – гірший; гірше
word – слово
worth – значення; цінність
world – світ
wort – лікарська трава

Exercise 6. Прочитайте слова з "німими" *w, k*:

write – писати
wrest – виривати (силою)
wrap – загортати (у щось)
wrong – неправильний
wrinkle – зморшка
wring – викручувати
wrist – зап'ясток
wreck – катастрофа, аварія
writer – письменник
know – знати
knight – лицар
knit – в'язати, зв'язувати
knot – вузол
knife – ніж
knee – коліно
knob – випуклість
knock – стукати
knuckle – суглоб пальця

Exercise 7. Запам'ятайте правопис слів:

ph = [f]

photo – знімок	pharmacy – фармація
phase – фаза	phrase – вираз
physics – фізика	philosopher – філософ

Exercise 8. Прочитайте слова, звертаючи увагу на читання *ey* [i] у ненаголошеному складі:

hockey – хокей	valley – долина
honey – мед	turkey – індик
kidney – нирка	money – гроші

Exercise 9. Прочитайте слова і запам'ятайте їх:

aw = [ɔ:]: draw – тягнути; raw – сирий
law – закон; awe – жах
saw – побачив; straw – солома

au = [ɔ:] (у словах французського і латинського походження):
applaud – аплодувати; fault – помилка
author – автор; exhaust [ig'zɔ:st] – виснажувати
autumn ['ɔ:təm] – осінь
But! aunt [ɑ:nt] – тітка

ou = [ʌ] (у словах французького походження):
touch – торкатись; couple – пара (двоє)
trouble – неприємність; непокоїти; double – подвійний
country – країна; сільська місцевість

our = [ɔ:]: pour – лити; your – твій, ваш, ваші
course – хід; курс; течія; source – джерело
four – чотири

Exercise 10. Напишіть транскрипцію наступних слів.

Probe, fair, their, near, severe, war, worth, dress, crime, flare, scar, duck, flurry, force, mere, shift, game, graft, work, knap, store, fall, warm, during, tire, pure, write, wind, dim, dry, know, high, check, fellow, trolley, wrote, knur, mare, sheer, curb, morning, cheque, blame, fell, phone, about, mind, born.

II. Speaking: English for Modern Medical Specialists

Exercise 1. Read and memorize the following words.

language ['læŋgwidʒ] мова
e.g. My native language is Ukrainian.
study ['stʌdi] вивчати
e.g. We study English at school.
vocabulary [və'kæbjuləri] лексика
e.g. No dictionary could list the total vocabulary of a language.

read [ri:d] читати
e.g. Can you read this text?
write [rait] писати
e.g. Can you write these words?
peculiarity [pi,kjuli'æriti] особливість
e.g. Every language has its own peculiarities.
accent ['æksənt] акцент, вимова
e.g. He speaks French with a foreign accent.
scientific [,saiən'tifik] науковий
e.g. They use scientific approach in their research.
knowledge ['nɔlidʒ] знання
e.g. My knowledge of German is poor.
interpret [in'tə:prit] перекладати (усно)
e.g. Can you interpret Mr. Brown's words?
translate [træns'leit] перекладати (письмово)
e.g. I have already translated this text.
meaning ['mi:niŋ] значення
e.g. What is the meaning of this word?

Exercise 2. Learn the following phrases.

to have a good command of ...	добре володіти
to try to do one's best	намагатися робити все можливе
to be of great importance	мати важливе значення
as quick as possible	якомога швидше
to learn by heart	вчити напам'ять
mother tongue	рідна мова
I beg your pardon...	Вибачте...
I do not understand you.	Я вас не розумію.
Say it again, please.	Скажіть це ще раз, будь ласка.
Please, speak slowly.	Говоріть, будь-ласка, повільно.
What does this word mean?	Що означає це слово?

Exercise 3. Make up sentences.

		a foreing language to me.
		spoken in many countries.
English	is	a truly international language.
		my favorite subject.
		the mother tongue of nearly three hundred million people.

Exercise 4. Fill in the blanks with the necessary words from brackets.
1. Please ... the last word. *(say, understand, repeat)*
2. I can read English but I cannot ... it. *(say, tell, speak)*
3. I know grammar well, but my ... is poor. *(language, pronunciation, meaning)*

Exercise 5. Make up questions and let your fellow students answer them.

	study a foreign language?
Do you	speak English?
	have English lessons every day?
Are	your lessons interesting?
	you sometimes tired after lessons?
Why	do you study foreign languages?
	can't you speak Endlish well?
	do you learn grammar?

Exercise 6. Complete the following sentences.

1. Is there anybody who speaks ...? 2. What is the ... for ... ? 3. The ... for ... is ... 4. If you want to speak well, you ... . 5. The word combination "mother tongue" means ... 6. English is spoken in ... .

Exercise 7. Translate into English.

1. Англійська мова – мій улюблений предмет.
2. Багато людей розмовляють англійською мовою.
3. Англійською мовою розмовляють у Великобританії, США, Канаді.
4. Чи ви розмовляєте англійською мовою?
5. Англійська мова міжнародна.
6. Багато англійських слів мають кілька значень.

Exercise 8. Give synonyms to the words in bold type.

1. What English-speaking **countries** do you know?
2. What is his **mother tongue**?
3. To know a foreign language is **very important** nowadays.
4. He knows French **very well**.
5. Can you **translate** this sentence?

Exercise 9. Read and act out the following dialogs.

1

A: I am studying English now.
B: Are you really? They say it's very difficult.
A: I don't think English is easy.
B: Why do you think so?
A: Because I have to work hard learning a lot by heart.

2

A: So you've passed your exams.
B: It wasn't very difficult.
A: It's because you worked hard, I think.
B: Well, I was all right in History, but I didn't do so well in Literature.
A: And what about your English?
B: Not so good, only so-so.

3

A: I don't think you work hard enough on your English.

B: Well, I do, I work very hard, but please try to understand it's very difficult for me.

A: Oh, is it? How long does it take you to do your homework?

B: A long time, two or three hours, and sometimes even four.

4

A: Mrs. Jones, I'd like to introduce you our Ukrainian friend Mr. Kononenko.

B: How do you do?

C: How do you do?

B: You've come to study English, haven't you? Do you find it difficult?

C: Well, I do. It's quite different from what we read in textbooks. I understand the radio and TV all right, but I don't always understand people in the street.

B: Yes, that's difficult at first. And how do you find life in England?

C: Very interesting. I like it on the whole, although there are some things I find rather strange.

B: Don't worry. You'll soon get used to it.

Exercise 10. Complete the following dialog.

A: Hello. My name is Nick.

B: ...

A: Are you an engineer?

B: ...

A: What's your job?

B: ...

A: Do you speak English?

B: ...

Exercise 11. Read and retell the text.

I Study English

English is an international means of communication. It is studied as a foreign language at secondary and higher schools of our country.

As for me, I like English very much. I studied English at school and I'm studying it now. I learn it every day because I want to have a good command of the language.

I want to become a good nurse, and English will be of great importance in my future work. First of all it gives me a possibility to communicate freely with foreign patients, to discuss the problems of nursing with my foreign friends. The knowledge of English will help me to translate different instructions of modern drugs. I am sure that the nurse must have enough knowledge in her work, she must enrich it reading special medical literature, using electronic materials, finding necessary information on Internet sites.

English will help me to grow professionally, I'll be able to learn new methods of nursing and treatment of patients.

There is a proverb: "A new language, a new world".

Exercise 12. Speak in pairs.

1) Do you enjoy learning	English? German? French?	
2) Does your friend want to speak	Spanish? English? Portuguese?	
3) Do you like	speaking English to your friends reading English books in original listening English songs watching films without translation doing grammar exercises doing English crosswords and puzzles	best of all?
4) Do you work on your language	every day? systematically? from time to time? with you teacher? with computer?	

III. Grammar Exercises

Exercise 1. Ask questions to the underlined words.

1. My father is a <u>doctor.</u>
2. I read <u>the order</u> of the doctor.
3. She is a nurse at <u>a hospital.</u>
4. Her working day begins <u>in the morning.</u>

Exercise 2. Ask questions to the sentences.

1. Who ... hospital? Where does ... ?	Olha Petrenko works at our hospital
2. When ... ? What ... do in the morning?	Olha makes injections in the morning.
3. What language ... ? How does ... ?	My friend spakes English well.

Exercise 3. Put in posessive pronouns.

1. We bought a house. The house is ... .
2. She has two dogs. The dogs are ... .
3. They have a cat. ... name is Tom.
4. He earned money. The money is ... .
5. I have a brother. ... name is Pete.
6. There are three books on the table. ... titles are the same.
7. I have a piano. The piano is ... .
8. Look at this pen. Is it ... or ... pen?
9. They have very good relations with ... relatives.
10. We always take ... children to the zoo.

IV. Independent Work: English as Means of International Communication

Exercise 1. Read the text and translate it.

English as Means of International Communication

English is the national language in such countries as Britain, the United States of America, Canada, Australia and New Zealand. It is the mother tongue of nearly three hundred million people. Many people speak English in Japan, China, India and African countries. But many more use it as an international means of communication, because English has become a truly international language.

Science, trade, sport and international relations of various kinds have given the English language the status of one of the world's most important languages. Many scientific and technical journals are written in English although they are not necessarily published in England or other English-speaking countries. At numerous international meetings and conferences, English is the main language. The Olympic Games and other multinational sports events cannot do without it.

The role English plays today is the result of historical processes. The English language, in the course of its historical development, has met with so many influences from abroad that its lexical and grammatical structure has come to reflect in many ways its international use.

English is a language, which is indeed able to cope with the most diverse tasks of international communication.

Exercise 2. Make up sentences.

1) other, need, to, people, learn, it, understand, you, to.
2) computer, medical, to, read, a, nurse, literature, must, use, the, in, work.
3) helps, to, English, grow, professionally.
4) learns, new, of, patients, the, treatment, a, methods, of, nurse.

Exercise 3. Are the sentences true or false?

1. More people in the world speak Chinese than English. 2. English is an international language throughout the world. 3. English may be called the language of business and commerce. 4. A new language, a new world. 5. A nurse mustn't learn computer in her work. 6. The profession of a nurse is necessary and interesting. 7. English doesn't help to grow professionally. 8. The profession combines the wish to help people and high moral features.

PART TWO
GENERAL MEDICINE

LESSON SEVEN

I	**Speaking**	We Study Anatomy
II	**Grammar**	1. Слова, що замінюють артиклі (§21). 2. Дієслово у Present Indefinite (§22). 3. Порядок слів у стверджувальному розповідному реченні (§23)
	Suffixes	(n.) -tion, -ist (adj.) -al, -ic
III	**Independent Work**	From the History of Anatomy

I. Speaking

Exercise 1. Learn the grammar rules.

Порядок слів у англійському реченні

1. Розповідне речення

(обставина часу/місця) ——— підмет ——— присудок ——— другорядні члени речення

My mother likes to read books.
Last Saturday she came to Lviv.

2. Питальне речення

На першому місці – присудок чи допоміжне дієслово, за ним підмет і другорядні члени речення.

Can you speak English?
Have you helped your mother to make this cake?

3. Заперечне речення

Двох заперечень в англійському реченні не буває.

Порівняємо:

Я ніколи нікого не помічаю. – I never notice anybody.

В англійському заперечному реченні спочатку йде підмет, за ним присудок із часткою **not**, а тоді другорядні члени речення.

I can't do it myself.

She isn't reading this book now.

Exercise 2. Practice the pronunciation of the following words.

Head – голова

hair [hɛə] волосся	eyebrow ['aibraʊ] брова
temple ['templ] скроня	eyelash [læʃ] вія
forehead ['fɒrid] чоло	eyelid – повіка
ear [iə] вухо	nose – ніс
the top of the head – тім'я	mouth [maʊθ] рот
the back of the head – потилиця	lip – губа
face [feis] обличчя	cheek – щока
	chin – підборіддя

Trunk – тулуб

neck [nek] шия	abdomen [æb`dəʊmən] живіт
chest [ʧest] грудна клітка	waist [weist] талія
stomach [`stʌmək] живіт	back [bæk] спина
belly [`beli] живіт	buttock [`bʌtək] сідниця

Upper limb [lim] верхня кінцівка	**Lower limb – нижня кінцівка**
arm [ɑ:m] рука	leg – нога
shoulder ['ʃəʊldə] плече	hip [hip] стегно
upper arm – плече	thigh [θai] стегно
elbow – лікоть	knee [ni:] коліно
forearm ['fɔ(r)ɑ:m] передпліччя	calf [kɑ:f] литка
hand [hænd] кисть	shin [ʃin] гомілка
wrist [rist] зап'ясток	foot [fʊt] ступня
palm [pɑ:m] долоня	ankle ['æŋkl] щиколотка, кісточка
finger ['fiŋgə] палець (руки)	sole [səʊl] підошва
thumb [θʌm] великий палець (руки)	heel [hi:l] п'ята
nail [neil] ніготь	toe [təʊ] палець (ноги)

Exercise 2. Look at a picture of a man (woman), learn the parts of the human body.

Exercise 3. Read the text.

We Study Anatomy

Everyone from the youngest age is interested in the body and how it works. The scientific term for the study of body structure is Anatomy. In the practical Anatomy class we study the

human body. The principal parts of the human body are the head, the trunk and the limbs (extremities). We speak of the upper extremities (arms) and lower extremities (legs).

The head consists of two parts: the skull which contains the brain, and the face which consists of the forehead, the eyes, the nose, the mouth with the lips, the cheeks, the ears and the chin.

The ear includes three principal parts: the external ear, the middle ear, and the internal ear.

The mouth has two lips: an upper lip and a lower lip. In the mouth there are gums with teeth, a tongue and a palate. The head is connected with the trunk by the neck. The upper part of the trunk is the chest and the lower part is the abdomen.

The framework of bones called the skeleton supports the soft parts of the body and protects the organs from injury. The bones are covered with muscles.

The upper extremity is connected with the chest by the shoulder. Each arm consists of the upper arm, the elbow, the forearm, the wrist, and the hand. We have four fingers and a thumb on each hand.

The lower extremity (the leg) consists of the hip (the thigh), the knee, the shin, the ankle and the foot. The body is covered with the skin.

Exercise 4. Answer the following questions.

1. What do medical students study in the practical Anatomy class? 2. What are the principal parts of the human body? 3. What are the upper extremities? 4. What are the legs called? 5. How many parts does the head consist of? 6. What does the skull contain? 7. What does the face consist of? 8. What are the three principal parts of the ear? 9. What is there in the mouth? 10. Where are the gums? 11. What connects the trunk with the head? 12. What is the upper part of the trunk called? 13. What does the skeleton protect the organs from? 14. What are the bones covered with? 15. What does each arm consist of? 16. What does the lower extremity consist of? 17. What is the body covered with?

Exercise 5. Find English equivalents of the following words, combinations and sentences in the text.

1) захищати від пошкоджень
2) верхня кінцівка
3) верхня частина тулуба
4) грудна клітка
5) зовнішнє вухо
6) середнє вухо
7) внутрішнє вухо
8) нижня кінцівка
9) череп, який вміщує мозок
10) тулуб та кінцівки

Exercise 6. Put in the missing words.

1. The ear … three … parts: the … ear, the …ear and the … ear. 2. The tongue is in the …. 3. The legs are … extremities, and the arms are … extremities. 4. The skull contains the …. 5. The forehead is one of the parts of the …. 6. The … connects the head with the …. 7. The framework of bones is called the …. 8.The shoulder connects the … with the …. 9. The skin covers the ….

Exercise 7. Name the parts of the human body and put them into the table.

Head	Chest	Trunk	Extremities	
			Upper	Lower

II. Grammar Exercises

Exercise 1. Make the sentences negative and interrogative.

1. I often meet him at school.
2. You go to the laboratory every day.
3. I read this newspaper every week.
4. Nurses always carry out doctor's prescriptions.
5. They speak English during lessons.
6. We write questions at home.

Exercise 2. Put questions to the underlined words.

1. I work at our office. 2. We usually have our English on Fridays. 3. We write sentences on the blackboard. 4. We think with the brain. 5. You breathe through your nose. 6. The lungs lie in the chest.

Exercise 3. Make up as many declarative and negative sentences as possible. Add adverbial modifiers.

	to live	
I	to work	always
They	to speak	often
We	to stand	seldom
You	to do	at present
Your friends	to write	usually
The students	to open	every morning
Those nurses	to close	sometimes
These doctors	to go	
	to give	
	to come	

Exercise 4. Ask your friend (in English).

1. Де він живе, чим займається, де навчається. 2. Яку іноземну мову вивчає, що він робить під час занять з англійської мови. 3. Чи багато читає англійських книг; чи розмовляє англійською на занятті і вдома.

Exercise 5. Describe situations using the words below.

In the morning:

to live, in the center, to go, the hospital.

Before classes:

to have one's English, in the morning, to do exercises, to speak to one's friends.

In class:

to read, to retell, to write, to translate, to ask, to answer, to have a dictation.

At home:

usually, to speak Ukrainian, to do home tasks, to copy out new words, often, to read books.

Exercise 6. Pay attention to the suffixes, indicate the parts of speech of the words.

Scientist, presentation, clinical, journalist, medical, prescription, problematic, direction, scientific, biologist, biological, internal, external, abdominal, dictation.

III. Independent Work: From the History of Anatomy

Exersice 1. Read the text.

Some Notes from the History of Anatomy and Physiology

Anatomy as an independent science dates from the 16th century. Its founder was Andreas Vesalius (1514–1564) who **dissected**[1] numerous human **corpses**[2] and studied the structure of the human body. His studies were summarized in the outstanding scientific work *The Structure of the Human Body* which was highly **praised**[3] by Academician I.P. Pavlov.

Physiology as an independent science was founded in the 17th century. Its foundation is connected with the name of William Harvey (1578–1657), the English **physician**[4] who discovered **blood circulation**[5].

In the 19th and 20th centuries great advances in various branches of medicine, physiology in particular, were wade. These advances are in large measure due to **contributions**[6] of Russian scientists.

The first medical school in Russia was organized in the middle of the 17th century. By that time there were Russian manuals containing information on medicine, and anatomy was studied from skeletons. Regular training of medical workers, some of whom subsequently became outstanding scientists, began in the 18th century (during the reign of Peter I). Brilliant Russian scientist M. Lomonosov made a great contribution to the development of natural science and medicine in Russia. As a result of his efforts the first Russian University with a school of medicine was opened in Moscow. Lomonosov's works had a direct bearing on physiology.

In the 19th century many Russian scientists worked in the fields of anatomy and physiology. The works of P.A. Zagorsky, I.V. Buyalsky and M.I. Pyrohov influenced greatly the development of Russian anatomy.

P.A. Zagorsky (1764–1846), Professor of anatomy and physiology, studied the **vascular**[7] system. He wrote a textbook of anatomy in Russian and his pupils were the first Russian anatomists. One of them was I.V. Buyalsky (1789–1866), the author of numerous works on anatomy and surgery. Buyalsky's most important contribution was that his works demonstrated the great importance of anatomy to practical surgery.

Brilliant Russian scientist M.I. Pyrohov (1810–1881) studied surgery, anatomy and other branches of medicine. He introduced a new method of anatomy by anatomical **research**[8]. He set out the fundamentals of **topographic**[9] anatomy by this method. One of his best-known works

on anatomy is the book called *Surgical Anatomy of the Vascular Trunks and Fasciae.* His work **emphasizes**[10] the importance of anatomy to practical medicine, especially surgery.

Notes:
[1] dissect [di'sekt] розтинати
[2] corpse [kɔ:ps] труп
[3] praise [preiz] схвалювати
[4] physician [fi'ziʃən] лікар
[5] blood circulation – кровообіг
[6] contribution [kəntri'bju:ʃn] внесок
[7] vascular ['væskju:lə] судинний
[8] research [ri'sɜ:ʧ] дослідження
[9] topographic [tɒpə'græfik] топографічний
[10] emphasize ['emfəsaiz] (тут) підкреслювати

Exercise 2. Find sentences about the development of Anatomy and Physiology.

Exercise 3. Collect information about the role of M. Lomonosov in the development of medicine.

Exercise 4. Find English equivalents in the text.
1. Постійна підготовка медпрацівників (деякі з них стали потім видатними вченими) почалася у XVIII столітті. 2. У розвиток анатомії в Росії великий внесок зробили роботи П.А. Загорського, І.В. Буяльського, М.І. Пирогова. 3. М.І. Пирогов вперше застосував цей метод анатомічного дослідження. 4. Виникнення фізіології пов'язане з іменем Вільяма Гарвея.

LESSON EIGHT

I	**Speaking**	Skeleton
II	**Grammar**	1. Слова-замінники іменника (§24). 2. Третя особа однини дієслова у Present Indefinite (§25). 3. Прислівники неозначеного часу (§26). 4. Спеціальне питання до підмета та його означення (§27)
	Suffixes	(adv.) -ly
III	**Independent Work**	Indoor Activities or Home Interests

I. Speaking: Skeleton

Exercise 1. Phonetic reading: read, remember the words and translate the following word combinations.

A limb [lim]; limbs; the left limb; the right limb; the limbs of the human body.

An extremity [iks'tremiti]; the upper extremity; the lower extremity; man has four extremities; the arm is an upper extremity; the leg is a lower extremity.

The forehead ['fɒrid]; a wide forehead; a narrow forehead; the eyes are under the forehead; the forehead is one of the parts of the face.

The mouth; in the mouth; open your mouth; close your mouth; breathe through the nose but not through the mouth.

The tongue [tʌŋ]; a coated tongue; the tongue is in the mouth; the tongue is the organ of speech; the tongue is very flexible.

The palate ['pælit]; the soft palate; the hard palate; the palate is the organ of taste; the palate is the upper part of the mouth.

A shoulder; the left shoulder; the right shoulder; the shoulder connects the upper extremity with the chest; we have two shoulders.

The thumb; the left thumb; the right thumb; the thumb is one of the fingers on the hand.

The knee; the left knee; the right knee; the knee is a part of the leg.

The calf; the calf of the left leg; the calf of the right leg.

Exercise 2. Read and learn the following words.

skeleton ['skelətn] скелет
framework ['freim,wɜ:k] каркас
bone [bəʊn] кістка
skull [skʌl] череп
clavicle ['klævikl] ключиця
scapula ['skæpjʊlə] лопатка
rib [rib] ребро
breastbone ['brestbəʊn] грудина
pelvis ['pelvis] таз
spine [spain] спинний хребет
vertebra ['vɜ:tibrə] хребець (pl. vertebrae ['vɜ:tibri:] хребці)
humerus ['hju:mərəs] плечова кістка
radius ['reidiəs] (анат.) променева кістка
ulna ['ʌlnə] ліктьова кістка
joint ['dʒɔint] суглоб
bones of the hand – кістки кисті
femur ['fi:mə] стегнова кістка
patella [pə'telə] колінна чашечка
kneecap ['ni:,kæp] колінна чашечка
tibia ['tibiə] велика гомілкова кістка
fibula ['fibjulə] мала гомілкова кістка
bones of the foot – кістки ступні

Exercise 3. Look at the skeleton and try to memorize the location of the bones.

Exercise 4. Make up your own questions and supply answers according to the given model. Use the verbs:

To smell, to hear, to taste, to touch, to breathe.

Model: *What do we call the organ we see with? – We call the organ we see with an eye.*

Exercise 5. Put in the appropriate words.

Taste, smell, thinking, sight, hearing.

1. The brain is the organ of .... 2. The eye is the organ of .... 3. The nose is the organ of .... 4. The tongue and palate are the organs of .... 5. The ear is the organ of....

Exercise 6. Answer the following questions.

1. How many teeth (eyes, ears, tongues, fingers, knees, thumbs, arms, shoulders, limbs, wrists, feet, cheeks, lips, chins, gums, lungs, kidneys, extremities) does man have? 2. What is the organ of thinking (sight, hearing, smell, speech, taste)? 3. What do we do with our eyes

(ears, nose, tongue and palate, fingers)? 4. Is the thigh (calf, ankle, foot, knee, wrist, elbow, hand, shoulder, forearm) a part of the upper or lower extremity?

Exercise 7. Describe the human skeleton.

Exercise 8. Read the text and translate it.

Skeleton

The skeleton is the framework of the body. The skeleton supports the soft parts and protects the internal organs from injury.

There are more than two hundred bones of different sizes and shapes in the skeleton.

The skeleton may be divided into three main groups of bones: the bones of the head, trunk and extremities. The bones are connected together by joints, cartilages and ligaments. The joints allow the bones to move. Ligaments connect one bone to another. Tendors attach bones to muscles. Muscles contract and move skeleton parts.

The head bones are called the skull. The skull consists of many cranial bones. The upper part of the trunk is formed by the ribs and breastbone in front and the vertebrae in the spine. The lower part is the pelvis.

The bones of the trunk are connected with the upper extremities by the clavicles and scapulas.

The upper extremity consists of the humerus, the radius with the ulna and the hand bones.

The lower extremity has the femur, the tibia with the fibula and the foot bones.

We do all kinds of work with our upper extremities. And we can walk, run and jump with our lower extremities.

Exercise 9. What words are defined below?

1. The framework of bones.
2. The human body apart from the head and extremities.
3. The upper part of the trunk.
4. The lower part of the trunk.
5. The part of the head which contains the brain.
6. The upper extremities.
7. The lower extremities.
8. The end of the arm.
9. The part of the leg on which we walk.
10. The part of the upper extremity from the shoulder to the hand.

Exercise 10. Ask questions on the text "Skeleton" and retell the text.

Exercise 11. Communicative situation.

Try to explain to your younger brother how we can move, make things, do different types of work, run, jump, walk.

Grammar Exercises II. Grammar Exercises

Exercise 1. Make up questions and answer them. Work in pairs.

(he) Does he often play volleyball?	Yes, he's a very good player.
(you) Excuse me, ... English?	Yes, a little.
(you) What ...?	I'm a secretary.
(your sister) What ..?	She works in a shop.
(she) ...?	Yes, 20 cigarettes a day.
(it) How often ... in summer?	Not often. It's usually dry.
(you) ... dancing?	Yes, I love it.
(they) What time ... usually ... to bed?	10 o'clock.
(you) What ... usually ... for breakfast?	Toast and coffee.
(it) How much ... to stay at this hotel?	$30 a night.

Exercise 2. You are asking somebody questions. Write questions with *Do/Does* ...?

1. I work hard.
   And you? Do you work hard?
2. I play tennis.
   And you? ... you .....?
3. We play tennis.
   And Ann? ... Ann .....?
4. I know the answer.
   And you? ... ... the answer?
5. I like hot weather.
   And you? .....?
6. I smoke.
   And your father? .....?
7. I do exercises every morning.
   And you? .....?
8. I speak English.
   And your friends?.....?
9. I want to be famous.
   And you?.....?

Exercise 3. Use the verbs in the list to make sentences about your friend.
Cost, do, do, go, have, like, rain, smoke, speak.

Exercise 4. Write positive or negative short answers (*Yes, he does/No, I don't,* etc.).

1. Do you smoke?	*No, I don't.*
2. Do you live in a big city?	.....
3. Do you drink a lot of coffee?	.....
4. Does your mother speak English?	.....
5. Do you play a musical instrument?	.....
6. Does it rain a lot where you live?	.....

Exercise 5. Form adverbs with the help of the suffix *-ly*, use the following words, translate them.

Model: *usual – usually (звичайний – звичайно)*

Late, day, cold, week, warm, bad, clear, love, pure, correct, probable, exact, high, useful, wide, helpful.

Exercise 6. The verb *to look* with different prepositions has different meanings. Pay attention to them translating the sentences. Learn these meanings:

to look – дивитися, глянути
to have a look – поглянути
to look for – шукати
to look into – заглядати; досліджувати
to look at – дивитись на
to look after – доглядати (за)
to look ill (tired) – виглядати хворим (втомленим)
to look like – бути схожим

Exercise 7. Translate the sentences (see § 24).

1. One must look after one's health. 2. The patient looks tired. One has to look into the problem. 3. Does he look like his brother? 4. Why does she look ill? 5. Look at the table on page 17. 5. The former looks like the mother and the latter like the father. 6. The dog looked at the bone. It likes bones very much.

Exercise 8. Ask questions for the underlined words.

1. The nurse knows anatomy.
2. We speak about our patients.
3. A good nurse takes care of patients carefully.
4. The doctor examines bed patients.
5. Bed patients need special care.

III. Independent Work: Indoor Activities or Home Interests

Exersice 1. Read the word combinations and translate them.

Doing things: reading; listening to records, tapes or to the radio; watching television; entertaining friends; playing games (e.g. chess or cards); painting; mending things.

Making things: models, needlework (e.g. sewing), knitting, crocheting, weaving, making carpets, making lace), singing or playing musical instruments (e.g. piano, guitar, violin), cooking and baking, home decorating and repairing.

Collecting things: stamps, postcards, maps, coins, beermats, bottles, tins, old china, autographs, books, butterflies, shells, crystals and other things.

Learning things: learning foreign languages, learning to play a musical instrument, studying music, art, literature or other subjects.

Exercise 2. Name the activities which we can do with our eyes, ears, brain, hands, feet.

LESSON NINE

I	**Speaking**	Internal Organs
II	**Grammar**	1. Правило ряду (ланцюг іменників) (§28). 2. Зворот ***there is/are*** (§29). 3. Місце прислівників способу дії і ступеня в реченні (§30). 3. Єднальні сполучники (§31)
	Suffixes	(n.) -ment, -ance, -ence (adj.) -ive, -ous (v.) -fy/-ify, -ate
III	**Independent Work**	Body Systems

I. Speaking: Internal Organs

Exercise 1. Read the following words.

Human body, trunk, limb, extremity, upper, lower, to consist of, to contain the brain, skull, forehead, mouth, lip, cheek, chin, external, internal, gum, tooth (teeth), tongue, palate, to connect, neck, chest, abdomen, lung, heart, gullet, to breathe, beat, abdominal, cavity, stomach, liver, spleen, intestine, kidney, gallbladder, bladder, bone, skeleton, to support, soft, to protect, injury, muscle, shoulder, forearm, elbow, wrist, thumb, hip, thigh, knee, calf, ankle, skin.

Exercise 2. Read the words and remember them.

pharynx [ˈfæriŋks] глотка
sternum – грудина
blood [blʌd] кров
esophagus – стравохід
lung [lʌŋ] легеня
heart [hɑ:t] серце
diaphragm [ˈdaiəfræm], midriff – діафрагма
stomach [ˈstʌmək] шлунок
liver [ˈlivə] печінка
gall bladder [ˈgɔ:l ˌblædə] жовчний міхур
poison [ˈpɔizn] отрута
bacterium [bækˈtiəriəm] мікроб, бактерія
digestion [diˈdʒesʧən] травлення
pancreas [ˈpæŋkriəs] підшлункова залоза
spleen [spli:n] селезінка
kidney [ˈkidni] нирка
intestine [inˈtestin] кишка, кишечник
bladder [ˈblædə] (сечовий) міхур
to differ [ˈdifə] відрізнятись
to destroy [disˈtrɔi] руйнувати
to occupy [ˈɔkjʊpai] займати; розташовуватись
to pump [pʌmp] качати; викачувати

Exercise 3. Learn the following word combinations.
abdominal cavity – черевна порожнина
internal organ – внутрішній орган
large intestine – товста кишка
small intestine – тонка кишка
principal organ – основний орган
sex gland – статева залоза
specific role – особлива роль
whole body – все тіло (організм)
to work over – переробляти
internal medicine – лікування внутрішніх хвороб

Exercise 4. Name the internal organs.

Exercise 5. Read the text and retell it.

Internal Organs

All internal organs are situated in the chest and abdomen. The chest is separated from the abdomen by the diaphragm. The principal organs of the chest are the gullet, the heart and the lungs. The gullet connects the pharynx and the stomach.

There are two lungs – one in each half of the chest. They differ in size. The right lung is larger than the left one. There is the heart between the lungs behind the breastbone. The heart pumps the blood to the whole body.

The lower part of the trunk is the abdominal cavity. The principal organs here are the stomach, the liver, two kidneys, the gallbladder, the pancreas, the spleen, the small and large intestines, the bladder and internal sex glands.

There is the liver with the gallbladder in the right upper abdominal part. The liver is the largest and heaviest organ in the body. It works over all the products of digestion. The liver destroys poisons and bacteria which get into the blood. There is the stomach, the pancreas and the spleen in the left upper part of the abdominal cavity. Behind them there are the right and left kidneys at the back.

The small and large intestines occupy all the lower abdomen. Here is also the bladder and sex glands.

Each internal organ of the body plays a specific role in the organism.

The branch of medicine which studies internal organ diseases is called internal medicine.

Exercise 6. Answer the following questions.
1) Where is the chest?
2) What is the lower part of the trunk?
3) What is there between the chest and abdomen?
4) What are the principal organs of the chest?
5) What are the principal organs of the abdominal cavity?
6) What can you say about the lungs?
7) What is the function of the heart?
8) What is the function of the liver?

9) Does each organ have its specific role?
10) What is the name of the branch of medicine which deals with internal organ diseases?

Exercise 7. Make up your own questions and supply answers according to the given model. Use the expressions given below.

Model: *What do we call the organ we breathe with? – The organ we breathe with we call the lungs.*

To pump the blood, to destroy poisons, to make beats, to connect, to divide.

Exercise 8. Complete the sentences.

The external organs are … .
The internal organs are … .
The organs of the chest are … .
The organs of the abdominal cavity are … .
The organs of the head are … .

Exercise 9. Learn the conjunctions and translate the sentences.

1. The book includes both texts and different exercises.
2. Medical students study both theoretical material and laboratory work.
3. This text is either in English or in German.
4. Neither my brother nor my father is at home now.
5. Not only the liver but also the gallbladder is in the right side of the abdominal cavity.

Exercise 10. Determine the parts of speech of the following words. Mind suffixes.

Treatment, numerous, translate, intensive, demonstrate, clinical, biologist, prescription, digestion, situation, abdominal, scientist.

Exercise 11. Read and act out the dialogs.

1

Ann: Are you a physician?
Mike: No, I am not.
Teacher: Yes, you are a physician.
Mike: No, I am not.
Teacher: Yes, you are.
Mike: No, I am not a physician.
Teacher: Kate, is Mike a physician?
Kate: Yes, he is.
Mike: No, I am not. I am a doctor.
Kate: Yes, you are. A doctor is a physician.

2

Teacher: Is this your Anatomy book?
Student: No, it isn't.
Teacher: And where is yours?
Student: I don't know, perhaps at home.
Teacher: Then take my book and open page 37. Is this a picture of internal organs?

Student: Let me see… Yes, it is. I see the heart and the lungs in the chest.
Teacher: Anything else?
Student: I know that the gullet is also here, but I don't see it.
Teacher: Of course. You can't see the gullet in this picture. Open page 39!

Exercise 12. Communicative situation.
You met your old friend. She is a student of the School of Music and Arts. You are a student of the medical school. Prove your friend that you know everything about both external and internal organs of the human body.

II. Independent Work: Body Systems

Exercise 1. Learn new words.
movement ['mu:vment] рух; переміщення
blood vessels ['blʌd'veslz] кровоносні судини
tissue ['tisju:] тканина
cell [sel] клітина
nutrient ['nju:triənt] поживна речовина
oxygen ['ɒksidʒen] кисень
waste products ['weist'prɒdʌkts] продукти розпаду
to convert into – перетворювати в
to extract – видаляти, витягувати
to dissolve – розчиняти
carbon dioxide ['kɑ:bəndai'ɔksaid] вуглекислий газ
to expel – виштовхувати, виводити назовні
appendage [æ'pendidʒ] придаток
excretory [iksk'retəri] вивідний, екскреторний
sense [sens] відчуття, чуття
stimuli ['stimju:lai] стимули
message ['mesidʒ] повідомлення
memory ['meməri] пам'ять
reasoning ['ri:z(ə)niŋ] міркування
substance ['sʌbstəns] речовина
hormone ['hɔ:məun] гормон
growth [grəuθ] ріст
utilization [ˌju:tilai'zeiʃn] використання
reproduction [riprə'dʌkʃn] відтворення
thyroid ['θairɔid] щитовидна залоза
pituitary [pi'tju:it(ə)ri] гіпофіз
gland [glænd] залоза

Exercise 2. Read and translate the text.

Body Systems

The body systems have been variously stated to be nine, ten or eleven in number, depending on how much detail one wishes to include. Here is one list of the systems.

1) *The skeleton system.* The basic framework of the body is a system of over 200 bones and the joints between them, collectively known as *skeletal.*

2) *The muscular system.* Body movements result from the action of the skeletal muscles, which are attached to the bones. Other types of muscles are present in the walls of body organs such as the intestine and the heart.

3) *The circulatory system.* The heart and blood vessels make up the system when the blood is pumped by the heart to all the body tissues, bringing with it nutrients, oxygen, and other substances and carrying away waste materials. Lymphatic vessels play an important supporting role in circulation.

4) *The digestive system.* This system comprises all organs that have to do with taking in food and converting it into substances that the body cells can use. Examples of these organs are the mouth, gullet, stomach, intestine, liver, and pancreas.

5) *The respiratory system* includes the lungs and the passages leading to them. The purpose of this system is to take in air and extract oxygen from it. Oxygen is then dissolved in the blood and conveyed to all the tissues. A waste product of the cells, carbon dioxide, is taken by the blood to the lungs, where it is expelled to the outside air.

6) *The integumentary system.* The word *integument* means skin. The skin is considered by some authorities to be a separate body system. It includes the skin and its appendages: hair, nails, sweat and oil glands.

7) *The urinary system.* This is also called *the excretory system.* Its main components are the kidneys, ureters, bladder, and urethra. Its chief purpose is to rid the body of certain waste products and excess water. (Note that other waste products are removed by the digestive and respiratory systems and by the skin.)

8) *The nervous system.* The brain, spinal cord, and nerves make up this very complex system, which controls and coordinates most parts of the body. The organs of special sense (such as the eyes, ears, taste buds, and organs of smell), together with the receptors for touch and other senses, receive stimuli from the outside world. These stimuli are converted into impulses that are transmitted to the brain. The brain directs the body's responses to these messages and also to messages coming from within the body. Such higher functions as memory and reasoning also occur in the brain.

9) *The endocrine system.* Scattered organs known as *endocrine glands* produce special substances called *hormones*, which regulate such body functions as growth, food utilization within cells, and reproduction. Examples of endocrine glands are the thyroid and pituitary glands.

10) *The reproductive system.* This system includes the external sex organs and all related inner structures that are connected with the production of offspring.

Exercise 3. Remember the pronunciation of the names of the body systems.

skeletal ['skelit(ə)l] скелетний
muscular ['mʌskju:lə] м'язовий
circulatory ['sɜ:kju:lətri] циркуляційний; що має відношення до кровообігу
digestive [di'dʒestiv] травний
respiratory ['respərə,tɔ:ri] дихальний
integumentary [in,tegju'ment(ə)ri] покривний
urinary ['ju(ə)rin(ə)ri] сечовий
nervous ['nɜ:vəs] нервовий
endocrine ['endəʊkrain] ендокринний
reproductive [,ri:prə'dʌktiv] репродукційний, відтворний, що стосується розмноження

Exercise 4. Name the main functions of every system of the human body.

Exercise 5. Correct mistakes in the sentences.

1) The main system of respiration is the integumentary system.
2) The excretory system produces hormones.
3) The blood is pumped to all the body tissues by the muscles.
4) The stomach, liver and pancreas belong to the endocrine system.
5) The heart coordinates the functions of the body.
6) The lungs take in the air and isolate carbon dioxide from it.
7) The muscles are present in all parts of the body.
8) The skin is a separate body system.
9) The brain is an organ of the skeletal system.
10) The purpose of the respiratory system is to rid the body of certain waste products.

LESSON TEN

I	**Speaking**	Heart
II	**Grammar**	1. Об'єктний відмінок особових займенників (§32). 2. Основні форми дієслова (§33). 3. Функції займенника ***it*** (§34). 4. Вживання слів ***much–little, many–few*** (§35)
	Suffixes	(n.) -er/-or (adj.) -ant, -ent

I. Speaking: Heart

Exercise 1. Learn the words and word combinations.

Autumn: It is the third season of the year, between summer and winter. September, October and November are autumn months.

Spring: Spring is the season of the year between winter and summer.

Flower: a part of a plant; beautiful flowers; pleasant odor of flowers. The flower rose is the national emblem of England. The trees were in flower.

Leaf (pl. leaves): green parts of a plant. Leaves are the part of a plant which can be used in medicine. Spring is the season of the year when first leaves appear on trees.

Yellow: a color. Some flowers may be yellow. Lemon is of yellow color.

Green: a color. Leaves of most plants and trees are green in spring and in summer. It is a colour between yellow and blue in the colour spectrum.

Brown: The color of coffee is called brown.

Depend (on): Children depend on their parents not only for food. Italy depends on foreign countries for oil.

Sweet: a taste. We call the taste of sugar sweet. Some fruits are sweet.

Buy (bought): We can buy drugs at the chemist's shop. Yesterday I bought an interesting book.

Dog: Dog is a friend of man. Experiments are often conducted on dogs.

Exercise 2. Learn the words, pay attention to pronunciation.

soul [səʊl] душа. E.g. SOS means "save our souls".
heart [hɑ:t] серце. E.g. You took my heart and soul.
hollow ['hɒləʊ] порожнистий. E.g. The stomach is a hollow organ.
beat [bi:t] удар. E.g. You made some beats in the game.
heartbeat – биття серця; пульсація
time [taim] час; раз. E.g. Do it two times a week.
disease [di'zi:z] хвороба. E.g. Heart diseases are dangerous.
regular ['regju:lə] правильний; постійний
contraction [kənt'rækʃn] скорочення. E.g. Heart contractions were frequent.
regimen ['reʤimen] режим; дієта E.g. You must keep your regimen.
chamber ['ʧeimbə] камера
atrium – передсердя
ventricle ['ventrikl] шлуночок
artery ['ɑ:təri] артерія
vein [vein] вена
capillary [kə'piləri] капіляр
blood [blʌd] кров
vessel ['vesl] судина. E.g. Blood vessels are veins, arteries and capillaries.
septum ['septəm] перегородка
valve [vælv] клапан
mitral ['maitrəl] митральний
tricuspid [trai'kʌspid] тристулковий
circulation [ˌsɜ:kju:'leiʃn] циркуляція. E.g. There are two blood circulations – greater and lesser.

Exercise 3. Look at the picture of the heart and learn its structure.

Exercise 4. Read the text about the heart and retell it.

Heart (Part 1)

The heart is a hollow, muscular organ, that pumps the blood throughout the body. It lies behind the breastbone between the organs of the chest. It works during the whole life. It makes beats. A heartbeat is a rhythmic contraction of the heart muscle. When a person is at rest, his heart makes usually 60–90 beats per minute.

You can control the work of your heart taking your pulse. You can strengthen your heart, protect it from diseases by regular regimen and exercises.

The human heart (Fig. 10–1) has four chambers through which the blood passes. The heart has left and right atriums (the upper part) and left and right ventricles (the lower part). The septum divides the left and right parts. Between the left atrium and ventricle there is the mitral valve. Between the right atrium and the ventricle there is the tricuspid valve. Besides there is a pulmonary valve and an aortic valve at the largest blood vessels which go out of the heart. These one-way valves direct the movement of the blood through the four chambers of the heart. The blood flows to the entire body by means of arteries, veins and capillaries. There are two blood circulations in the human body – greater and lesser (or pulmonary).

Remember that arteries carry the blood from the heart and veins carry the blood to the heart.

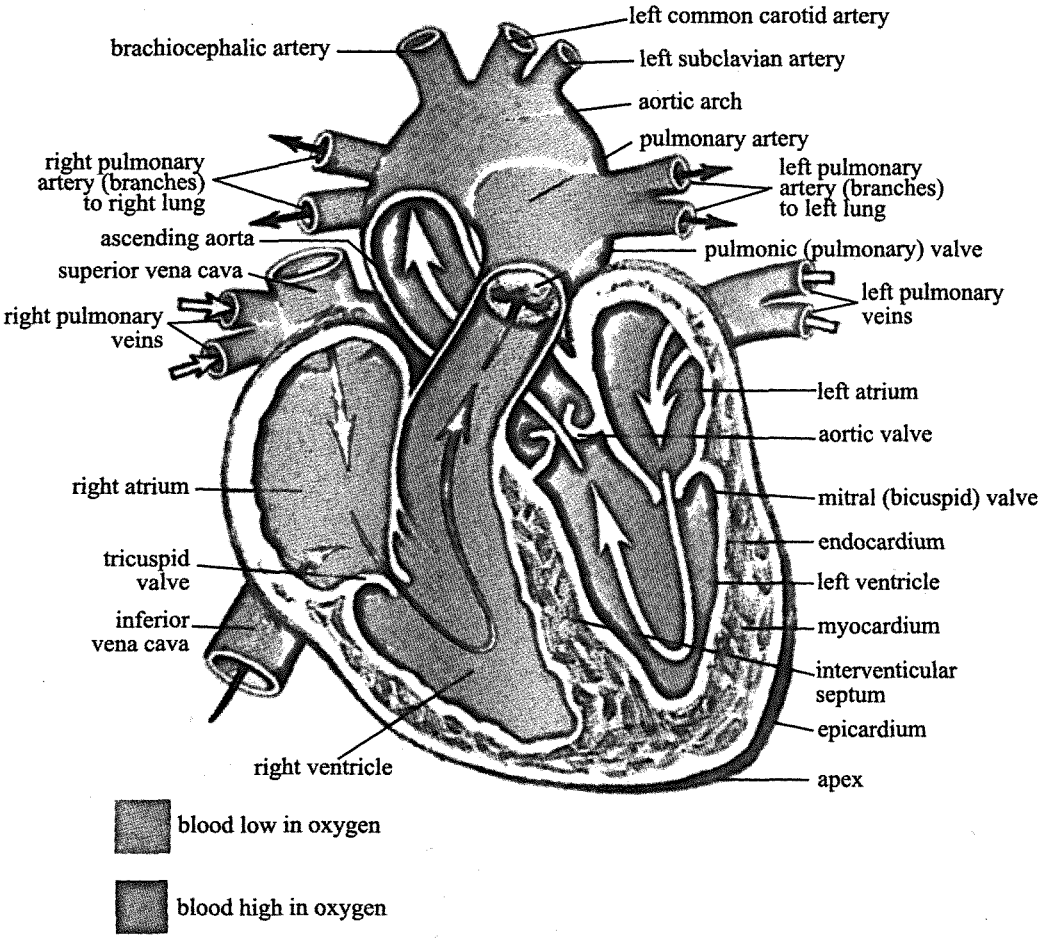


Fig. 10-1. Heart

Exercise 5. Answer the questions.

1) What kind of organ is the heart?
2) Where is it situated?
3) What is its structure?
4) What is the function of the heart?
5) Can you control the work of your heart? How?
6) What kind of blood vessels do you know?
7) How many valves are there in the heart? Name them.
8) What carries the blood to the heart?

Exercise 6. Make up sentences using the given words.

The heart	beats. makes beats. pumps the blood. is in the chest. is between the lungs. is an internal organ.

Exercise 7. Are the sentences true or false?

1. The heart is in the right half of the chest.
2. The heart makes beats and pumps the blood throughout the body.
3. The heart has four chambers.
4. There are three ventricles and an atrium in our heart.
5. The veins carry the blood to the heart.
6. The septum divides the upper and lower parts of the heart.
7. The mitral valve is in the left heart.
8. The tricuspid valve is in the left heart.
9. There are two blood circulations.
10. The aorta is the largest artery of the body.

Exercise 8. Complete the sentences using the text "Heart".

1. Your heart is an organ which works ...
2. The heart is situated ...
3. It consists of ...
4. The septum is ...
5. Heartbeat is ...
6. You can control the work of you heart by ...
7. Normally the heart makes ...
8. There are two blood circulations ...

Exercise 9. Agree with the following.

Begin with *I agree that – я згоден, що; it's true that – це правда, що; of course – звичайно.*

Model: *The heart lies in the chest. – It's true that the heart lies in the chest.*

1. You can strenghen your heart by regular regimen and exercises.
2. Heartbeat is a rhythmic contraction of the heart muscle.
3. The arteries carry the blood from the heart.
4. There are four chambers and four valves in our heart.
5. These one-way valves direct the blood to the entire body.

Exercise 10. Look at Fig. 10–1 and describe the structure and function of the heart to your fellow student.

II. Grammar Exercises

Exercise 1. Open the brackets using personal pronouns in the objective case.

1. These are very good exercises. Do (they) at home, please. 2. This doctor works with (I). I know (he) well. 3. Write these words in your vocabulary and learn (they). 4. Read this letter and translate (it) into English. 5. I know this girl. She studies with (we).

Exercise 2. Translate the sentences into English.

1. Моя сестра багато працює.
2. Вони читають багато наукових статтей.
3. Ваш син багато працює? – Ні, він зараз працює дуже мало.
4. Він отримує багато листів щодня.
5. Ми дуже багато читаємо, але пишемо мало текстів.
6. Багато студентів живуть у гуртожитку.
7. Не читайте надто багато ввечері.
8. Ми посилаємо листи багатьом друзям за кордон.

Exercise 3. What part of speech is the origin of these words? Translate them.

Translation, receiver, discussion, walker, giver, solution, teacher, doctor, decoction.

Exercise 4. Learn the translation of sentences with *it*.

It is cold. – Холодно. It is cool. – Прохолодно. It's warm. – Тепло. It's hot. – Жарко.	It is early. – Рано. It is late. – Пізно. It is time. – Пора. It is high time. – Давно пора.
It's morning. – Ранок. It's evening. – Вечір. It's night. – Ніч. It's afternoon. – Полудень.	

Exercise 5. Pay attention to the suffixes of adjectives, learn the words.

Prominent, current, important, present, talent, patient, instant, different.

Exercise 6. Give four main forms of the following verbs.

To reply, to play, to work, to read, to stop, to close, to stand, to rise.

Exercise 7. Translate the following sentences (*it* is not translated).

1) It is difficult to study English.
2) It isn't easy to understand you.
3) It is important to take medicines.
4) It is necessary to work hard.
5) It is not so important to repeat it.
6) It's necessary to read the order.

LESSON ELEVEN

I	**Speaking**	How to Take a Pulse
II	**Grammar**	1. Питальна і заперечна форми дієслова у Present Indefinite (§36). 2. Схеми загального і спеціального питань (§37). 3. Присвійний відмінок іменників (§38). 4. Числівники (§39)
	Word Formation	Конверсія
III	**Independent Work**	My Heart Will Go on

I. Speaking: How to Take a Pulse

Exercise 1. Phonetic exercise: learn the words and their pronunciation.

hollow – порожній, порожнистий
vagus – блукаючий нерв
to maintain [mein'tein] утримувати
heart sound – серцевий шум (звук)
heartbeat – биття серця; пульсація
cavity ['kæviti] порожнина
to expel [iks'pel] виштовхувати
atrium ['eitriəm] передсердя
contents ['kɔntents] вміст
ventricle ['ventrikl] шлуночок
contraction [kən'trækʃn] стискання; звуження; скорочення
valve [vælv] клапан
nervous connection [kə'nekʃn] нервове сполучення
entrance ['entrəns] вхід
exit ['egzit] вихід
bag – мішок; сумка; валіза
layer – пласт, шар

Exercise 2. Read the text and translate it.

Heart (Part 2)

There are four cavities in our heart. The two upper cavities are atriums and the two lower ones are ventricles. The ventricles are opened and closed with four valves.

The heart is within a strong fibrous bag known as the pericardium. The heart consists of three layers: the epicardium, the myocardium and the endocardium. The epicardium and endocardium consist of connective tissue. The muscular tissue of the heart is known as the myocardium.

Heart action regulation is provided by important nervous connections, especially with the vagus and sympathetic nerves.

The heart valves make the noise known as heart sounds. At each heartbeat the two atriums contract and push their contents into the ventricles.

In adults the heart makes from 70 to 75 beats per minute while in children it beats much faster.

There is a period of rest for the muscle between the beats. This rest period is shorter during greater activity and longer when the body is quiet.

On average the heart is in a state of contraction for about one third of our life.

Exercise 3. Answer the questions.

1. How many cavities are there in our heart? 2. What bag is our heart within? 3. How many layers does the heart consist of? 4. What important connections are there in the heart? 5. How many beats does the heart make in adults and in children?

Exercise 4. Learn the following words and word combinations.

pulse [pʌls] пульс
to take a pulse – прощупувати пульс
radial [ˈreidjəl] радіальний; променевий
fast [fɑ:st] швидкий
deep [di:p] глибокий
shallow [ˈʃæləu] поверхневий
rate [reit] частота
rhythm [ˈriðm] ритм
result [riˈzʌlt] результат
beating [ˈbi:tiŋ] пульсація; серцебиття
to note [nəut] помічати
to count [kaunt] рахувати, лічити
to calm [kɑ:m] заспокоювати

Exercise 5. Read the text.

How to Take a Pulse

As you know you can control the work of your heart taking your pulse. And it is not difficult. Put three fingers of your left hand over the radial artery on your right hand and count the beatings.

Every nurse must be careful when she takes the patient's pulse. Many patients are nervous when they see a doctor or a nurse and the patient's pulse is faster as a result.

The nurse must wait a few minutes, calm the patient and only then begin to count the pulse. She must pay attention to any changes in the pulse and note if it is deep or shallow, the rate, the rhythm and the strength of beating. Changes in the pulse are very important and the nurse must immediately tell the doctor about them.

Exercise 6. Demonstrate on your neighbour how to take a pulse, comment your actions.

Exercise 7. Translate the word combinations into English.

Вимірювати пульс, серцебиття, зміни пульсу пацієнта, не важко, три пальці лівої руки, променева артерія, зачекати кілька хвилин, заспокоїти пацієта, порахувати пульс, бачити зміни, сила биття, нервуватися, негайно повідомити лікаря.

Exercise 8. Read the joke.

Laughter Is the Best Medicine

Doctor's wife: Now, my dear, you must forget your profession if you go to see our friends with me.

Her husband: What have I done?

Doctor's wife: Why do you feel the pulse of everyone who gives you a hand?

Exercise 9. Read the information.

How the Second Hand in Your Watch Was Invented

John Floyer, an English doctor, discovered the varying pulse rate. In order to take his patients' pulse, he constructed his own special pulse watch which ran for 60 seconds.

So the second hand in your watch originated from Floyer's pulse watch.

Notes:
second hand – секундна стрілка
discovered – відкрив
invented – винайшов
varying – змінний
watch – годинник
originated – походить

II. Grammar Exercises

Exercise 1. Learn the interrogative words.

Who, whom (by whom, about whom, with whom), whose, what (by what, about what, with what), when, why, where, which, how, how many (how much).

Exercise 2. Read the dates.

1066, 1382, 1905, 1812, 1917, 1986, 2000, 2004.

Exercise 3. Read the numerals.

138; 159-й;100; 101-й; 2/5; 0,365; 1350; 1648; 2387520-й.

Exercise 4. Ask 10 special questions based on the text "Heart (Part 2)" using the interrogative words from Exercise 1.

Exercise 5. Translate the sentences. Pay attention to the parts of speech of the underlined words:

1. Group the results. Examine your group.
2. The results interest them. The book was of great interest.
3. Here is a list of students. List the symptoms in your vocabulary.
4. Study English, it's important for you. My study at school was not so good.
5. His present was on the table. They present me roses on my birthday.
6. How does the organ function? The function of the kidneys is to act as filters.
7. Do you advise me to go there? But your advice isn't useful.
8. Use the medicine if you want. It's use doesn't help me.

III. Independent Work: My Heart Will Go on

Exercise 1. This song is well-known all over the world. We heard it for the first time in the famous film "Titanic" (it is performed by Celine Dion). Read the song and translate it.

My Heart Will Go on

(Lyrics by Will Jennings, music by James Horner)

Every night in my dreams I see you, I feel you,
That is how I know you go on
Far across the distance and spaces between us.
You have come to show you go on.
Near, far, wherever you are
I believe that the heart does go on.
Once more you open the door
And you're here in my heart
And my heart will go on and on.
Love can touch us one time and last for a lifetime
And never let go till we're gone.
Love was when I loved you, one true time I hold to.
In my life we'll always go on.
You're here, there's nothing I fear
And I know that my heart will go on.
We'll stay forever this way,
You are safe in my heart
And my heart will go on and on.

Exercise 2. Learn it by heart. You can sing this song yourself and with your friends.

LESSON TWELVE

I	**Speaking**	Blood
II	**Grammar**	1. Місце прямого і непрямого додатків у реченні (§41). 2. Дієслово у Past Indefinite (§42). 3. Неправильні дієслова (§43). 4. Дієслово ***to be*** у Past Indefinite (§44). 5. Дати, місяці, дні тижня (§45)
	Suffixes	(n.) -ture/-ure
III	**Independent Work**	Functions of Blood

I. Speaking: Blood

Exercise 1. Phonetic reading.

Test yourself: do you remember these words and word combinations from school?

Shop: A place where different things are sold is called a shop.

Department: medical department, pharmaceutical department. The institute has three departments. There are two departments at the chemist's.

Wash: a room for washing. Every day when I get up I wash my face and hands. After every experiment they wash glassware and vessels.

Plant: My father works at the plant as an engineer. We gather medical plants during our practice. Where is the plant you work at?

Keep: You may keep the book for two weeks. Keep your room ventilated. We keep drugs in a cold place. The shelf where we keep our medicines is on the left.

Letter: Our alphabet has 34 letters, the English one has 26. Children usually read big letters easier. What letters are most often used? Do you often write letters to your parents (sister, brother, grandparents)? Yesterday I received a letter from my friend.

Separately: I live separately from my parents. Every drug is kept separately.

Separate: England is separated from France by the English Channel and the sea.

Physicians: This institute trains physicians and pharmacists. We often come to consult physicians when we are not well.

Follow: You must follow the reaction attentively.

Remember: I can't remember his name. Do you remember how to do it?

Contamination: contamination of water and air.

Contaminate: contaminated river, a contaminated drug.

Exercise 2. Learn the following words and word combinations.

fluid ['fluid] рідина
scarlet ['skɑ:lit] яскраво-червоний
dark red – темно-червоний
course [kɔ:s] курсувати, переміщуватись
plasma ['plæzmə] плазма
red blood cells – еритроцити
white blood cells – лейкоцити
platelets ['pleitlits] – тромбоцити
dissolved [di'zɒlvd] розчинений
gas [gæs] газ
oxygen ['ɒksidʒən] кисень
carbon dioxide ['kɑ:bn,dai'ɒksaid] вуглекислий газ
nitrogen ['naitrədʒən] азот
proteins ['prəʊti:nz] білки
lipids ['lipidz] жири
carbohydrates [,kɑ:bəʊ'haidreits] вуглеводи
inorganic salts [,inɔ:'gænik'sɒlts] неорганічні солі
blood test – аналіз крові
abnormal – ненормальний
amount [ə'məʊnt] кількість
composition [,kɒmpə'ziʃ(ə)n] склад
relatively constant – відносно постійний

Exercise 3. Choose the word that correctly completes each of the following sentences. Use the words below.

Heart and Blood

1. Your heart is a wonderful … that works during every minute of your life. 2. You can help it work long and well: you can strengthen it, protect it from … by exercises and regular … . 3. Take your … and you can control the work of your … 4. About five liters of blood fill

our arteries, veins and … . 5. … carry blood from the heart. 6. … carry blood to the heart. 7. … has red blood cells, white blood cells and … . 8. Today doctors can take blood … , listen to the heart, take blood tests and take the … of the patient's heart.

a) arteries, b) heart, c) capillaries, d) blood, e) veins, f) regiment, g) disease, h) plasma, i) organ, j) in such a way, k) pressure, l) cardiogram, m) pulse

Exercise 4. Put words in the right order to make sentences.

1) is, minute, 70, our, per, about, pulse, beats.
2) the, exercises, after, heart, faster, heavy, works.
3) be, the, after, or, will, a, two, again, minute, pulse, normal.

Exercise 5. Translate into English.

Серце – головний орган кровоносної системи. Вени несуть кров до серця. Артерії несуть кров від серця до кожної частини людського тіла. Серце скорочується і перекачує кров. Вимірявши пульс, ти зможеш перевірити роботу свого серця.

Exercise 6. Read the text and retell it.

Blood

About five liters of blood fill our arteries, veins and capillaries. The blood is the fluid that courses through the blood vessels of the body, so the blood supplies the body cells with necessary substances for living. The blood is of the red color. In the arteries it's scarlet, in the veins it's dark red.

The blood consists of the plasma (a yellowish liquid composed of water), dissolved gases, such as oxygen, carbon dioxide, nitrogen; proteins, lipids and carbohydrates, nitrogenous substances and inorganic salts; red blood cells, white blood cells and platelets. The amount and composition of the blood in a healthy person are relatively constant. Various diseases cause changes in the blood. These changes we can see making blood tests. In laboratories today different blood tests are conducted.

If a person has any changes in his blood, he must immediately consult a doctor.

Exercise 7. Answer the questions.

1. What substance is the blood?
2. What is the composition of the blood?
3. What is the main function of the blood?
4. What colour does the blood have in the veins? In the arteries?
5. What do changes in the composition of our blood show?
6. How do we see changes of the blood?

Exercise 8. Make a plan of the text "Blood".

Exercise 9. Read and translate the text. Give a title to the text.

An antigen is a substance that can provoke an immune (protective) response of the body. An antigen promotes production of antibodies that will interact only with that antigen. On the

surface of all cells there are numerous antigens, which cause production of different antibodies. The major blood groups (types A, B, AB, and O) are differentiated on the basis of the presence on the red blood cells of those surface antigens: type A blood has antigen A, type B has antigen B, type AB has both antigen A and antigen B, and type O has neither antigen A nor antigen B. A person's blood type must be identified before a blood transfusion can be given because his or her blood may reject transfused blood of the wrong type. Type A blood plasma, for example, does not contain any anti-A antibodies. It does, however, contain anti-B antibodies. If type B blood is transfused, the anti-B antibodies in the plasma will destroy the type B red cells, which have type B antigens.

II. Grammar Exercises

Exercise 1. Write the past form of these verbs.

1. get	6. leave	11. buy	16. put
2. eat	7. see	12. know	17. tell
3. pay	8. go	13. stand	18. lose
4. make	9. hear	14. take	19. think
5. give	10. find	15. do	20. speak

Exercise 2. Form as many questions as possible.

Where	do does	you	usually often	work live like wash do play cost mean	on Saturdays? music? your hair? at weekends? tennis? to fly to Rome? ?
How often		your parents			
		they			
What		Chris			
How much		it			
What		this word			

Exercise 3. Complete these sentences. Use one of these verbs in Past Simple (*smoke, watch, play, rain, clean, die, enjoy, finish, happen, live, open, start, stay, want*).

1. Yesterday evening I *watched* television. 2. I ... my teeth three times yesterday. 3. Bernard ... 20 cigarettes yesterday evening. 4. The concert last night ... at 7.30 and ... at 10 o'clock. 5. The accident ... last Sunday afternoon. 6. When I was a child, I ... to be a doctor. 7. Mozart ... from 1756 to 1791. 8. We ... our holiday last year. 9. We ... at a very good hotel. 10. Today the weather is nice, but yesterday it ... . 11. It was hot in the room, so I ... the window. 12. The weather was good yesterday, so we ... tennis. 13. Shakespeare ... in 1616.

Exercise 4. Change the location of the direct object where it is possible.

1. Please, send this book to Boris.
2. Please, take that letter and give it to Peter.
3. Don't read us this text.
4. Please take the textbook and write some questions to his friend.
5. Please give these telegrams to your boss.

Exercise 5. Translate the sentences into English, pay attention to the place of objects.

1. Коли ви дали мені цю книгу? 2. Ти написав лист сестрі чи брату? 3. Не читай мені це оповідання, я знаю його. 4. Вчитель пояснює нам нові правила. 5. Я хочу подивитися цей фільм. Не розповідай мені про нього.

Exercise 6. Say in English.

21.06.1985; у травні 1905; вісімнадцятого січня 1510 року; 1773 р.; 1918; 2001; сьогодні – ... ... 200... року; це було в середу, 11 квітня 1960 року.

Exercise 7. Read the words aloud, pay attention to the suffix *-ure* and its pronunciation.

Picture, lecture, nature, feature, fracture, tincture, culture, procedure, literature, adventure, structure, furniture, mixture.

Exercise 8. Tell your friend what you did yesterday or what happened the day before yesterday.

III. Independent Work: Functions of Blood

Exercise 1. Read the text.

Functions of Blood

The blood has many functions.

The blood performs an important function in metabolism: it delivers nutrients to the tissues of all the organs and carries the waste products away.

The blood performs a most important function in respiration: it delivers oxygen to the tissues of the organs and carries carbon dioxide away. Oxygen enters the blood and carbon dioxide is eliminated from it in the lungs.

The blood effects humoral regulation of the activities of hormones around the organism. Some of these substances stimulate while others inhibit the work of the organs.

The blood also has a protective function: it contains cells which possess properties of phagocytosis and special products called antibodies, which play a protective role.

The blood takes part in regulation of heat and in maintaining a constant body temperature. With the bloodstream heat is transported from warmer parts of the body to cooler parts. The blood gives off the excess of heat into the external environment, and organism doesn't become overheated.

Notes:
perform [pə'fɔ:m] здійснювати
metabolism [mə'tæbəlizm] обмін речовин
deliver [di'li:və] постачати
tissue ['tisju:] тканина
respiration [respi'reiʃn] дихання
eliminate [ə'limineit] виділяти

effect – впливати
hormone ['hɔ:məun] гормон
stimulate ['stimjuleit] стимулювати
inhibit [in'hibit] пригнічувати, гальмувати
properties ['prɒpətiz] властивості
phagocytosis [ˌfægəsai'təusiz] фагоцитоз
antibody [ˌænti'bɒdi] антитіло
maintain [mein'tein] утримувати; зберігати
constant body temperature – постійна температура тіла
excess [ik'ses] надлишок, надмір
external environment [in'vai(ə)rənment] зовнішнє середовище
overheat – перегрів

Exercise 2. Make a plan of the text.

Exercise 3. Tell your friend about the five main functions of the blood.

LESSON THIRTEEN

I	**Speaking**	Blood Pressure
II	**Grammar**	1. Дієприкметник минулого часу (Participle II) (§46). 2. Дієслово ***to have*** і зворот ***to have got*** (§47). 3. Вираження відмінків у реченні (§48). 4. Неозначені займенники ***some, any*** (§49).
	Suffixes	(n.) -ion (-tion, -sion) (adj.) -ful, -less, -able
III	**Independent Work**	Instant Blood Test

I. Speaking: Blood Pressure

Exercise 1. Phonetic exercise. Say the dates in English.

27.01.1987; 4.02.1936; 11.03.1908; 1.04.1981; 29.05.1949; 13.06.2000; 14.07.1958; 12.08.1999; 4.09.1966; 28.10.2003; 5.11.1836; 3.12.1936.

Exercise 2. Learn the following words.

pressure ['preʃə] тиск; напруга
blood pressure (BP) ['bi:'pi:] кров'яний тиск
systolic ['sistəlik] систолічний
diastolic [dai'æstəlik] діастолічний
hypertension [ˌhaipɜ:'tenʃn] підвищений тиск
headache ['hedeik] головний біль
heartache ['hɑ:teik] серцевий біль
fatigue [fə'ti:g] втома
dizziness ['dizinəs] запаморочення
frighten ['frait(ə)n] лякати
calm [kɑ:m] заспокоювати
anemia [ə'ni:mjə] малокрів'я
hypotension [ˌhaipəu'tenʃn] знижений тиск
cause [kɔ:z] причина
heredity — спадковість

Exercise 3. Learn the following word combinations.

to check one's BP – виміряти чийсь кров'яний тиск
arterial wall – стінка артерії
hypotensive drugs – ліки, що знижують тиск
to be caused by different conditions – бути викликаним різними обставинами
to be dangerous – бути небезпечним
flushing of the face – почервоніння обличчя
ringing in the ears – дзвін (шум) у вухах
thumping in the chest – важкість у грудях
frequent nosebleeds – часті носові кровотечі
to be more susceptible – бути більш схильним
at greater risk – із особливим ризиком
current evidence – сучасні дослідження
overweight – надмірна вага
prolonged stress – тривале напруження
smoking and drinking – паління і алкоголь
"silent disease" – "тиха хвороба"
obvious symptoms – очевидні симптоми

Exercise 4. Read the text and translate it.

Blood Pressure

The blood pressure (BP) is the pressure of the blood on the arterial wall.

The blood pressure can be normal, low or high. The normal BP is between 110–140 (the systolic pressure) over 70–90 (the diastolic pressure).

As a rule we check BP with the help of the tonometer and stethoscope. Today everybody can take his blood pressure easily, because there are different electronic tonometers.

When you check the patient's BP, you must think about his age. If a person of 20 has the blood pressure of 150, it is dangerous. And if a person of 50 has the same BP, it isn't dangerous.

High Blood Pressure

Contrary to popular belief, there is no typically hypertensive person. However, some people are more susceptible to developing high blood pressure than others. Heredity appears to play a role, the persons whose parents are hypertensive are at greater risk of becoming hypertensive themselves.

In the past, hypertension was attributed to aging, but current evidence indicates that age is not the primary factor.

Overweight, prolonged stress, smoking and drinking may increase blood pressure.

Hypertension has been called "silent disease" because it often has no obvious symptoms. A person may have high blood pressure for years without noticing any symptoms.

High blood pressure often frightens patients. The nurse must calm them. Such patients can complain of headaches, heartaches, frequent nosebleeds, flushing of the face, ringing in the ears, thumping in the chest, fatigue and dizziness. Hypertensive patients must not work hard.

Low Blood Pressure

Hypotension or low blood pressure is as dangerous as hypertension. It is caused by different conditions. Anemia may be a cause of hypotension. Great fatigue, weakness can also cause hypotension. In all cases it is very serious and the nurse must be very attentive to those patients.

Exercise 5. Complete the sentences using the words below.

1. Blood pressure can be ...
2. We can check BP with the help of ...
3. Hypertension is the ...
4. Hypotension is the ...
5. The patients with high blood pressure mustn't ...
6. These patients complain of ...
7. If your BP is 120 over 70, it's ...

1) work hard; 2) normal; 3) normal, low and high; 4) headaches and heartaches; 5) low BP; 6) high BP; 7) tonometer

Exercise 6. Make up your own sentences with the following words.

Fatigue, calm, anemia, arterial wall, at greater risk, check BP.

Exercise 7. Make a plan of the text.

Exercise 8. Give a short summary of the text.

Exercise 9. Tell the group about the "silent disease".

II. Grammar Exercises

Exercise 1. Form Participle II of irregular verbs.

Get, leave, buy, put, eat, see, know, tell, pay, go, stand, lose, make, hear, take, think, give, find, do, speak.

Exercise 2. Form Participle II of the following verbs. Pay attention to the pronunciation of *-ed*.

Work, build, carry out, have, be, use, compound, place, wash, enter, consist, include, keep, see, find, make, do, sound, dispense, gather, mean, decrease, introduce, discover.

Exercise 3. Group the words according to parts of speech. Mind their suffixes.

Medicinal, practical, widely, collected, increased, natural, usually, preservation, harvesting, highly, colored, ripening, elliptical, described, possessing, slightly, pharmacological.

Exercise 4. Translate the phrases into Ukrainian. Memorize the meaning of the adjective suffixes.

Суфікси прикметників:

-less вказує на відсутність ознаки:
aim (ціль, мета) – aimless (безцільний);
help (допомога) – helpless (безпорадний);
-able вказує на пасивне значення:
to read (читати) – readable (що легко читається);
to move (рухатися) – movable (пересувний);
-ive вживається у прикметниках, утворених від дієслів:
to invent (винаходити) – inventive (винахідливий);
to act (діяти) – active (активний).

a) An endless street; a homeless boy; a waterless zone; a cornerless table; a treeless street; a friendless man; nameless heroes; saltless food; workless people;

b) eatable food; a readable article; dividable numbers; controllable processes; hearable sounds; an explainable question; movable things; answerable questions.

Exercise 5. Ask your friend questions beginning with *Where/What/How*.

Model: *I wash my hair twice a week. (how often/you?)*
How often do you wash your hair?

I live in London. *(where)*
I watch TV every day. *(how often)*
I have lunch at home. *(where)*
I get up at 7.30. *(what time)*
I go to the cinema a lot. *(how often)*
I go to work by bus. *(how)*

Exercise 6. Translate the sentences with Participle II.

1. The text demonstrated in the lab is new.
2. Each article contains information discussed in the mass media.
3. The topic presented for studying concerns surgery.
4. The story begun so sad had a happy end.
5. The liquid poured into that vessel was the water from our river.

Exercise 7. Make up sentences using the table.

	have	a family.
I	has	a lot of books.
You	haven't	many children.
He	hasn't	a dictation.
My sister	have got	a lot of work to do.
His friends	has got	a cold.
	hasn't got	two dogs.

Exercise 8. Translate the sentences into English. Use the pronouns *some, any, no*.

1. Лікар приділив увагу деяким питанням. 2. Зараз лабораторія має кілька сучасних мікроскопів. 3. Ніхто ще не може вилікувати цю хворобу. 4. Будь-який медпрацівник може зробити цей аналіз. 5. У вас ще є запитання? – Я не маю запитань. 6. Деякі з цих зошитів мої, а решта – мого брата. 7. У мене є деякі з цих записів у записнику. 8. Дехто зі студентів готує завдання у бібліотеці.

III. Independent Work: Instant Blood Test

Exercise 1. Read and translate the text using the notes.

instant – негайний, терміновий
sample [ˈsæmpl] зразок; проба
index [ˈindeks] індекс; показник
count [kaʊnt] рахувати
spot [spɒt] місце; пізнавати
untrained [ʌnˈtreind] непідготовлений
blood count – аналіз крові
clotting component – компонент згортання
get results – отримувати результати
devise a diagnostic system – розробити діагностичну систему
on the spot – на місці; негайно
ultraviolet light source [sɔ:s] джерело ультрафіолетових променів
centrifuge [ˈsentrifju:ʤ] центрифуга
reader – пристрій зчитування
version [ˈvɜ:ʃn] версія; варіант
beam [bi:m] промінь; направляти промені
detect [diˈtekt] виявляти
measure [ˈmeʒə] порахувати; виміряти
reagent [ri:ˈeiʤent] реактив, реагент
eyepiece [ˈaipi:s] окуляр
coagulate [kəʊˈægju:leit] згортатися

Instant Blood Test

To a doctor, a patient's blood sample is a special index. Medical analysis of a blood count can help to spot various infections, diseases and even some types of cancer. Usually doctors have to wait hours and sometimes days to test a blood sample. But now even untrained medical workers can perform on-the-spot blood tests and get results in minutes thanks to newly developed electronic instruments. Doctors devised a diagnostic system that consists of a centrifuge and an incubator for blood samples, and a reader that can diagnose the condition of the blood. The reader is a version of a microscope connected to an ultraviolet light source. When beamed to the blood sample through filters, the light is able to detect red cells, white cells and platelets, the blood clotting component. Then computerized sensors can automatically measure these components.

All that a medical technician must do is look through the microscope eyepiece.

According to the developers, blood test analysis with this system may take about 15 minutes.

Instant diagnoses are the object of recent research.

Japanese scientists designed an instrument which can detect the presence of cancer within a few minutes. A special reagent must be used. It coagulates the blood and the results of the analyses are displayed on the screen.

Exercise 2. Answer the questions.

1. Does a patient's blood sample help a doctor to diagnose the disease? 2. What can help the doctor to detect various infections, diseases and even some types of cancer? 3. Who can perform on-the-spot blood tests? Why is it important? 4. Are the on-the-spot tests difficult to perform? Why? 5. Do you think that such diagnostic instruments may be the instruments of the future?

LESSON FOURTEEN

I	**Speaking**	Healthy Way of Life
II	**Grammar**	1. Зворотні займенники (§50). 2. Модальне дієслово ***can*** і вирази, що його замінюють (§51). 3. Способи перекладу слова ***as*** (§52)
	Suffixes	(n.) -edge (v.) -ize
III	**Independent Work**	Test "Are You Going to Live to 100?"

I. Speaking: Healthy Way of Life

Exercise 1. Phonetic reading. Read the following verbs. When do we read [t], [d], or [id]? What form of the verb is formed with *-ed*?

Weighed [weid], equipped [ik'wipt], carried ['kærid], stored [stɔ:d], recorded [ri'kɔ:did], obtained [əb'teind], ventilated ['venti,leitid], entered ['entəd], divided [di'vaidid], included [ink'lu:did], graduated ['grædju,eitid], measured ['meʒəd], required [ri'kwaiəd], prevented [pri'ventid], trained ['treind], increased [in'kri:zd], improved [im'pruvd], discovered [dis'kʌvəd], prepared [pri'pɛəd], dispensed [dis'penst].

Exercise 2. Read and learn new words.

fitness ['fitnəs] хороша фізична форма
jog [dʒɒg] бігати підтюпцем
work out ['wɜ:kaut] тренуватися; тренування
drug [drʌg] медикамент, ліки; наркотик
accept [ək'sept] визнавати
enormous [i'nɔ:məs] величезний
attractive [ə'træktiv] привабливий
wrist [rist] зап'ясток
multiply ['mʌltiplai] (мат.) множити
pulse rate [reit] частота пульсу
fair [fɛə] (тут) непоганий, посередній
lung capacity [kə'pæsəti] ємність легень
squash [skwɒʃ] гра в м'яч (подібна до тенісу)
suit [sju:t] відповідати вимогам
sensible ['sensəbl] практичний (про одяг)
triple ['tripl] потроюватися
sweat [swet] пітніти
release [ri'li:s] виділяти
exhaustion [ig'zɔ:stʃn] виснаження, знесилення
injury ['indʒəri] травма, ушкодження
stamina ['stæminə] витривалість
suppleness ['sʌplnəs] гнучкість

Exercise 3. Read the text.

Fitness and Health

For millions of people around the world, regular exercise is now part of their daily lives. Some jog, cycle or swim, while others prefer to work out in gyms, do aerobics or play team sports. They're part of the worldwide fitness revolution which has taken place over the last twenty years. The question is, why has the revolution happened? Well, there are several major factors.

a) Fit people live longer, healthier lives than unfit people – especially unfit people who also smoke, drink or take drugs. People now accept that taking regular exercise is a great way to become and stay healthy.

b) In today's world there's enormous pressure on both men and women to look as young and attractive as possible. It's also another reason for the fitness boom. Fit people not only feel good, they look good, too.

c) More sport appears on our TV screens today than ever before.

Work out videos have made it easier to exercise at home.

Dozens of new magazines devoted to sport and fitness have been published in recent years.

How can I measure my own fitness level?

The simplest way is to take your pulse. Here's how.

(a) Put two fingers of the left hand across your right wrist.

(b) Relax.

(c) Count the number of beats you can feel in the next fifteen seconds.

(d) Multiply the number of beats by four to get your pulse rate per minute.

(e) Check your answer on the chart below.

Pulse Rate When Relaxed (beats per minute)	*Level of Fitness*
80 or more	Poor
70–79	Fair
60–69	Good
50–59	Very good
Under 50	Excellent

People talk about "aerobic exercise"

What is aerobic exercise? It's any activity during which your pulse goes up to a minimum of 140 beats per minute for at least twenty minutes. Jogging, swimming, cycling and football are all aerobic. It's not enough to jog, swim or cycle only once or twice a month.

To improve your heart and lung capacity you need to do an aerobic activity three times per week.

What's the best way to prepare for exercise if you're not used to it?

If you're a beginner, it's very important to make sure that:

(a) the activity you've chosen suits your level of fitness (e.g. don't play squash for an hour if you're totally unfit);

(b) you're wearing sensible clothes and shoes;
(c) you warm up slowly and gradually before you start the activity itself.

What actually happens inside the body during exercise?

A lot! Your heartbeat goes up from an average of 60–70 beats per minute to an average of 160–170. The amount of blood being pumped by your heart triples. You breathe deeper and three times more often than usual. Extra blood is sent to your muscles. You lose water due to sweating. You feel good because your body releases chemicals called *endorphins.*

But too much exercise can be just as bad for you as too little. Exhaustion and muscle injuries are just two of the possible problems.

What are the advantages of being fit?

There are lots. Fitness reduces the risk of heart attacks; increases strength, stamina and suppleness; means that you sleep better and don't get tired so easily; helps you to lose weight; increases the size and tone of your muscles; makes you feel healthier, happier and more positive.

Exercise 4. Give English equivalents of the words.

Бігати підтюпцем, їздити на велосипеді, плавати, спортзал, здоров'я, добрий стан здоров'я, тренуватися, визнавати, привабливий, телеекран, журнали, вживати, жир, небезпечний.

Exercise 5. Complete the sentences.

1. Fit people live …	a. they look good too.
2. The food we eat …	b. is called our diet.
3. Fit people not only feel good …	c. longer, healthier lives.
4. Overeating is …	d. on our TV screens.
5. More sport appears ...	e. dangerous to health.

Exercise 6. Match the words/word combinations.

1) dangerous to health	a) підвищений тиск
2) to work out	b) залишатися здоровим
3) fitness	c) небезпечний для здоров'я
4) to stay healthy	d) добрий стан здоров'я
5) high pressure	e) приділяти увагу
6) to pay attention	f) тренуватися
7) adequate quantities	g) відповідна кількість

Exercise 7. Aswer the questions.

1. What is now part of people's daily lives?
2. What kind of sports do people go in for?
3. What has taken place over the last twenty years?
4. What are major factors?
5. What else influences our health?
6. What should people do to keep their health up to the mark?

7. What do we call a diet?
8. What are the constituents of food?
9. Is overeating dangerous to health?
10. In what form is the food eaten in exess of the body's energy requirements stored?

Exercise 8. If you want to live to 100, you may use the "Eternal Youth Laws". Read them, follow them and you'll be all right all your life!

Eternal Youth Laws

Obey the following rules for wellness to keep your immune system functioning properly and working for you to prevent diseases and put life into your years and years into your life.

Dietary Wellness is the foundation for having a healthier, happier, more youthful life, and actually reversing disease. Do you really care enough about yourself to gain optimum health? Eternal Youth is your choice!

1) Healthy diet must be a life long endeavor.
2) Digestion starts in the mouth, chew your food well.
3) Avoid ice cold beverage and do not drink beverages with meals.
4) Do not eat heavy foods upon arising or before retiring.
5) Eat only when very hungry, then undereat.
6) Rest on the seventh day.
7) Do not consume saturated fats.
8) Consume only natural whole foods, as God intended.
9) Avoid highly processed foods which overwork the organs.
10) Avoid precooked and processed foods that destroy enzymes and nutrients.
11) Consume 50 % raw "living" foods and extra fiber.
12) Steam, boil or bake your foods and undercook vegetables.
13) Omit white flour, white rice, white salt and pepper.
14) Cleanse your system periodically by fasting with pure, fresh juices.
15) Consume foods free of toxic insecticides and chemicals.
16) Avoid foods with preservatives and additives.
17) Avoid alcohol – cigarettes – caffeine – drugs – stress.
18) Take quality multivitamin and mineral supplements daily.
19) Drink 6–8 glasses of pure mineral or steam distilled water.
20) Enjoy fresh air and sunshine daily.
21) Exercise daily – include walking and stretching.
22) Keep active mentally and physically.
23) Maintain a positive state of mind.
24) Pray and be thankful for everything.
25) Be grateful for who you are and where you are.
26) Do not expect the impossible, set realistic goals and achieve them.
27) Love your neighbor as yourself.
28) Have faith in God.

Exercise 9. Make a dialog with your friend: he says that unhealthy life is good, and you prove that healthy life is better.

Exercise 10. Explain the meaning of the American proverb: *"Live every day of your life as though you expect to live forever".*

II. Grammar Exercises

Exercise 1. Complete the sentences with reflexive pronouns. Translate them.

1. You washed ...
2. I asked ...
3. She corrects his mistakes ...
4. She makes the dresses...
5. The system does it ...
6. We spoke with them ...
7. They came back ...
8. You will describe the method ...

Exercise 2. Replace the modal verbs in brackets with their appropriate forms.

1. I *(can)* buy all the necessary things at the market yesterday.
2. Many flowers *(may)* be collected in the time of pollination.
3. As it was diffcult for us to identify the herb we *(must)* descibe its odour, colour and taste.
4. In some years we *(can)* dispense medicines.
5. I was only a first-year student and *(can)* not work as a specialist at the hospital.
6. Before we entered the laboratory we *(must)* put on white gowns.

Exercise 3. Give short and full answers to the following questions.

1. Should they come earlier today?
2. Could he enter the medical college last year?
3. Will they have to be present at the Chemistry lecture?
4. May he begin the experiment without waiting for you?
5. Should there be a ventilator in your room?
6. Could they supply reagents in large amounts?
7. May he use inorganic salts for the reaction?

Exercise 4. Make up questions using modal verbs. Answer them.

Model: *to do something (yesterday)*

Could you do it yesterday? – No, I couldn't do it yesterday, but I can do it today.

To graduate from the institute (last year); to improve one's knowledge in English (in the first year); to take a test in Latin (yesterday); to prepare the necessary food (yesterday); to modify the technique (then); to record the obtained findings (an hour ago); to wash the laboratory vessels (yesterday).

Exercise 5. Name the parts of speech of the following words, pay attention to their suffixes.

Potential, memorize, knowledge, cubic, local, dramatize, recognize, village, beautiful, addition.

Exercise 6. Translate the sentences into Ukrainian. Mind the translation of the word *as* (see § 52).

1. My friend works as a nurse at the hospital.
2. As the book has a vocabulary it is useful for our students.
3. Nurses gain knowledge of treatment as they read current newspapers.
4. The paper describes the method as follows: ...
5. She know history as well as biology.
6. As a result, he prescribed him this medicine.
7. As the author says in the paper, the method is useful.
8. She spoke about her future profession as well.

III. Independent Work: Are You Going to Live to 100?

Exercise 1. Read the test and choose answers.

1. How often do you eat fruit and vegetables?
   a) every day
   b) never
   c) two or three times a weak
2. Look at this list of food and drinks. How much ice-cream, fizzy drinks, extra sugar on your food or in a drink, takeaway food (hamburgers, pizzas) do you eat a day?
   a) more than two
   b) one or two
   c) none
3. When you have a problem, you
   a) forget about it.
   b) talk to a parent, a teacher or a friend about it.
   c) wait and talk to a friend later.
4. You work out or go to a dance class
   a) once a week or more.
   b) two or three times a month.
   c) once a month.
5. When you have free time, you
   a) watch TV.
   b) go to the swimming pool with your friends.
   c) take serious exercises (e.g. jogging).
6. You live
   a) in a town.
   b) in the country.

7. You sleep
   a) more than ten hours a night.
   b) less than ten hours a night.
8. Your friends live on the third floor of a block of flats. You
   a) walk up the stairs when you visit them.
   b) take the lift when you visit them.
9. When you are in a hurry, you
   a) still remember to eat good meals.
   b) miss a meal but eat a packet of crisps or a chocolate.
10. Are you going to smoke when you are an adult?
    a) Yes. b) No.

Now add up your points, read the results below.

1. a) 3 b) 0 c) 1; 2. a) 0 b) 1 c) 3; 3. a) 1 b) 3 c) 2;
4. a) 3 b) 2 c) 1; 5. a) 0 b) 2 c) 3; 6. a) 1 b) 3;
7. a) 1 b) 3; 8. a) 3 b) 1; 9. a) 3 b) 0;
10. a) 0 b) 3.

Answers

5–12 points

You are not going to live to 100 without good food or exercises. You must eat more food and vegetables. You must take more exercise, too. It's fun to be fit.

13–24 points

Not bad... Do the same things but more often. Try to eat some fruit and swim once a weak.

25–30 points

You do all the right things. You' are going to live to 100. Congratulations!

Notes:

fizzy ['fizi] шипучий
chips (crisps) – хрустка картопля, чіпси
extra ['ekstrə] додатковий; зайвий
hamburger ['hæmbɜ:gə] гамбургер
swimming pool ['swimiŋ,pu:l] басейн
jogging ['ʤɔgiŋ] біг підтюпцем
block of flats – багатоповерховий будинок
stairs [stɛəz] сходи
to be in a hurry ['hʌri] поспішати
to have a good meal – ситно (добре) поїсти
miss [mis] пропускати
adult [æ'dʌlt] дорослий
to add up – складати, додавати
point – очко
fun – задоволення
fit [fit] здоровий
Congratulations! [kən,grætju'leiʃnz] Вітаємо!

LESSON FIFTEEN

I	**Speaking**	Vitamins
II	**Grammar**	1. Пасивний стан дієслова (§53). 2. Дієслова ***to influence, to affect, to follow.*** 3. Прислівники ***still, yet.*** 4. Іменник ***time*** у виразах
III	**Independent Work**	What You Should Know about Vitamins

I. Speaking: Vitamins

Exercise 1. Phonetic reading. Learn the following words and their combinations. Read and translate them.

Clothes: You put your clothes on when you get up in the morning and take your clothes off when you go to bed at night.

Wear: Do you always wear a hat in summer? In winter we like to wear warm clothes.

Moon: The Moon is a planet. The Moon moves round the Earth. We can see the moon at night.

Paper: Paper is a material which we can use for writing, for covering things. It means also a report, a scientific report or an article.

Shoes: Shoes are part of clothes which we wear on our feet.

Food: Food is the material which can be eaten by people or animals. Food includes various materials, for example, we like to drink milk, eat meat and butter. Milk, meat and butter are animal products. They include vitamins as well.

Spend: Students spend much time in libraries and reading halls.

A few–few: Few means not many, a few means a small number. Many people read Einstein's book, but few understood it. A few compounds were produced.

Trouble: To be in trouble means to be in an unhappy state or condition. I have much trouble with the children.

Exercise 2. Read and learn the following words.

potato [pə'teitəu] картопля
beetroot ['bi:tru:t] буряк
carrot ['kærət] морква
cabbage ['kæbidʒ] капуста
onion ['ʌnjən] цибуля
tomato [tə'mɑ:təu] помідор
vegetable ['vedʒitəbl] овоч
fruit [fru:t] фрукт
grapes [greips] виноград
lemon ['lemən] лимон
pepper ['pepə] перець
salt [sɔ:lt] сіль
sugar ['ʃu:gə] цукор
juice [dʒu:s] сік

vitamin ['vitəmin] вітамін
metabolism [me'tæbəlizm] обмін речовин
catalysts ['kætəlists] каталізатори
tissue ['tiʃu:], ['tisju:] тканина (жива)
influence ['influəns] впливати
participate [pɑ:'tisipeit] брати участь
identify [ai'dentifai] ідентифікувати, ототожнювати
erythrocytes [i'riθrəu,saits] еритроцити
scurvy ['skɜ:vi] цинга
avitaminosis [ə,vitæmi'nəusis] (pl. avitaminoses [i:z]) авітаміноз
overdosage [əuvə'dəusidʒ] передозування
yeast [ji:st] дріжджі
soya ['sɔiə] соя (боби)

Exercise 3. Learn the following word combinations.

to be indispensable for – бути необхідним для
plastic materials – пластичні матеріали
the first to establish – перший, хто встановив
chemical composition – хімічний склад
physiological role – фізіологічна роль
soluble only in fats – розчинні лише в жирах
enough vitamins – досить вітамінів
night vision – нічне бачення (видимість уночі)
citrus fruits – цитрусові
prevent rickets – запобігати розвиткові рахіту
lead to infertility – призводити до безпліддя
incorrect development – неправильний розвиток
retarded growth – загорможений, пригнічений ріст

Exercise 4. Make up sentences.

Vitamins	may be	normal.
The dose	play	an important role in human health.
Overdosage	are	harmful for the organism.
Avitaminoses		indispensable for the organism.
		deficiency of vitamins.

Exercise 5. Ask your fellow student why vitamins are necessary for our organism and where they are present.

Exercise 6. Give English equivalents of the word combinations.

Зберегти зір, зміцнити нервову систему, підвищити опір організму до інфекцій, приймайте щоденно, запобігання та лікування рахіту, покращити кровообіг.

Exercise 7. Read and act out the dialogs.

1

Teacher: Tom, name five things that contain milk.
Tom: Butter and cheese, ice-cream and two cows.

2

Neil: What kind of wine do you prefer?
Suzy: I don't drink wine. I drink only juice.
Neil: Do you think wine is harmpful for your health?
Suzy: Of course. And it'll be better for you to drink orange juice or mineral water.

3

A: What vitamin protects our eyesight?
B: It's vitamin A. It is in carrots, eggs and fish oil.
A: But I don't like fish oil. I prefer vegetables and fruit.
B: Do you know that they contain vitamin C?
A: Yes, I do. By the way, I've got to know that vitamin C increases resistance to infection.
B: So, it's especially important to eat oranges, lemons, fresh fruit and vegetables in winter.

Exercise 9. Read the text and retell it.

Vitamins

Vitamins are special organic substances which are indispensable for the organism. They do not provide energy and are not plastic materials, but they participate in metabolism as catalysts. They are necessary for the formation of the tissue which influences the transformation of substances in the cells and tissues of the organism.

N. Lunin, a Russian doctor, was the first to establish (in 1880) the presence of these substances (later named vitamins) in food. About 20 vitamins are known today. They are marked by letters A, B, C, D, K, P, etc. The chemical composition and physiological role of most vitamins have already been determined. Some vitamins (B and C) are water soluble, while others (A, D, E, K) are soluble only in fats. The daily requirement of vitamins is measured in milligrams and even parts of a milligram.

Fresh, varied food usually contains enough vitamins for the organism.

Vitamin A is found in green plants and is necessary for proper growth of bones, nutrition of the eye cornea and for proper functioning of night vision.

Vitamin B is a really complicated group of vitamins, twelve of which have now been identified. Some of them are necessary for growth, proper functioning of the nervous system, proper formation of the erythrocytes.

Vitamin C is the vitamin which prevents scurvy and is found in fresh vegetables and citrus fruit.

Vitamin D prevents rickets, vitamin E deficiency may lead to infertility.

Prolonged deficiency of any vitamin results in a disease known as avitaminosis. Most avitaminoses are accompanied by reduced resistance of the organism to infection, incorrect development and retarded growth in children.

Vitamins are widely used for medical purposes, many of them are produced synthetically.

Exercise 10. Answer the questions.

1. What are the functions of vitamins?
2. How many vitamins are known today?
3. What are the water soluble vitamins?
4. What are the fat soluble vitamins?
5. What is vitamin A (B, C, D, E) necessary for?
6. What is avitaminosis?

II. Grammar Exercises

Exercise 1. Name the parts of speech of the following words.

Basic, significant, useful, elimination, eliminate, devotion, occurrence, importance, incidental, needless, constantly, infection, infectious, pleasure, version.

Exercise 2. a) Learn the meanings of the verbs.

to influence – впливати на, діяти на
to affect – діяти на, впливати на
to follow – слідкувати за, супроводжувати
– слідкувати, спостерігати за
– розуміти
– слідувати (методу і т.д.)

followed by – за яким іде ...; із наступним
it follows – із якого випливає
as follows – таким чином
follow-up – наступне медичне спостереження, облік
follow-up study – тривале дослідження; дослідження віддалених результатів

b) Translate the sentences.

1. These results were affected by the presence of a virus.
2. The reaction was followed by a temperature rise.
3. The color is influenced by the heat.
4. Such diseases are influenced by the general conditions of the climate.
5. The results were not affected by the technique.
6. This paper was followed by another one.
7. It follows that vitamins are necessary for the organism.
8. They are conducting a follow-up study.

Exercise 3. Fill in the blanks with the necessary adverbs. Pay attention to their place in the sentence.

thoroughly – ретельно
widely – широко
rapidly – швидко
frequently – часто
however – однак
roughly – грубо
somewhat – дещо
generally – звичайно
periodically – періодично

1. Blood constituents are … used in clinics. 2. They … wash their hands with running water. 3. Six other elements are found in … the same proportions. 4. It is … recognized that the primeval life developed in the waters of the Earth. 5. With the increase in atomic weight the chemical elements, … and at definite intervals, show similar properties. 6. Temperature rise is … accompanied by intramolecular changes. 7. Sodium and chlorine react … and produce the white solid called sodium chloride. 8. … the properties of the reagents are quite different.

Exercise 4. You must differentiate.

still	yet
дія ще триває	дія ще не почалася

Translate the sentences into Ukrainian.

1. The doctor still needs up-to-date methods of patients' treatment.
2. This disease is still dangerous.
3. The journal still provides cancer information.
4. This question has not been discussed yet.
5. Is the nurse still away? – Yes, she is. She hasn't come yet.
6. That disease is yet unknown.

Exercise 5. Translate the sentences with the word *time*.

time – час; раз — *from time to time – час від часу*
at a time – одночасно — *in (on) time – вчасно*
for the first time – вперше — *it is time – пора*
next time – наступний раз — ***But!*** *багато часу – long time*

1. Вперше про цю хворобу почули ще в 1801 році.
2. Пора йти на операцію (оперувати).
3. Час від часу медсестра заходить в палату.
4. 200 пацієнтів лікуються в лікарні одночасно.
5. Десь в цю пору він приходить додому.
6. Наступного разу він хоче прийти вчасно.

Exercise 6. Put Passive instead of Active, translate the sentences.

Model: *We speak about the problem.*
The problem is spoken about by us.

1. The lungs exrete carbodioxide and water.
2. The liver exretes bile (жовч).
3. The blood carries oxygen through the body.
4. They prepared vaccine for influenza.
5. The doctor prescribes medicines.
6. The scientists pay much attention to infectious diseases.

III. Independent Work: What You Should Know about Vitamins

Exercise 1. Read the texts.

• ***What should you know about vitamins?***

Their sales are increasing, but do we really need them?

We spend millions of dollars a year on vitamin pills, powders and potions. The vitamin is now second only to aspirin as today's universal panacea. But how good are vitamins? A panel of GPs answer some of your most popular questions on the subject.

• ***How necessary are vitamins?***

Vital. Without them, the body cannot function properly. It develops deficiency diseases such as pernicious anemia, rickets and scurvy.

Most of us would get all the vitamins we need from a balanced diet. But there are times when vitamin supplements are necessary. Pregnant women, young babies and elderly people, who are possibly not eating properly, often need a vitamin top-up. Crash dieters may require a daily dose of vitamins.

• ***Will swallowing megadoses of vitamins delay ageing?***

Sadly, there is no proof that vitamins can put the hands of the clock back. It is also unwise to overdose on any vitamin. B and C are easily passed into the urine if too many are taken but A, D and E are stored in the body and can be harmful if taken in excess.

• ***Is there a sex vitamin?***

Vitamin E has been called the "sex vitamin", but there is no evidence that it ennances desire or improves performance.

• ***Do vitamin skin creams work?***

Various proponents swear they do. But scientists are sceptical that a vitamin rubbed into the face can penetrate the skin and revitalise the underlying tissue cells.

• ***What do vitamins do?***

They act like spark plugs to the body's engine. They play a vital role in regulating our body chemistry (metabolism).

• ***Which vitamins are healthy for the hair?***

The B-complex vitamins are especially important for hair health. A deficiency may cause a dry, falling hair, poor hair growth and premature graying.

• ***Can large doses of vitamin C prevent colds?***

In 1971, Nobel Prize-winning biochemist Linus Pauling argued that very large doses of vitamin C would prevent colds and possibly reduce the symptoms. But most medical scientists say there is no real evidence to support this theory.

• ***Can vitamins help prevent spina bifida in babies?***

Yes, it is believed so. That's why pregnant women are now given multivitamins as part of their regular diet.

• ***Do vitamins help in the prevention of cataracts?***

Research carried out in the U.S. and Canada suggests regular doses of vitamin E may prevent certain types of cataracts in diabetics. High blood sugar levels draw excess fluid into the lens of the eye and the theory is that vitamin E helps to reduce the damage. The vitamin is second to aspirin as today's universal panacea.

• ***Do vitamins help in the battle against cancer?***

There has been a great deal of scientific interest recently in the possibility that vitamins A and E may protect against cancer.

Lack of vitamin E may be associated with breast cancer. A research team at Edinburgh University is being funded to investigate a possible link between vitamin A and prostate cancer.

Early signs from a U.S. study are that deficiencies in vitamin A and carotene increase the chances of lung cancer.

Vitamins: Their Uses

Vitamin A: Essential for growth. Protects against winter infections. Needed for healthy skin, nails and hair. Sources include liver, dairy produce and green vegetables.

Vitamin B: Helps nerves, digestion and skin. Deficiency can lead to insomnia, depression and lethargy. B6 can relieve menstrual tension. B12 prevents and cures pernicious anemia. Sources include wholewheat bread, brewer's yeast and liver.

Vitamin C: Maintains the body generally. Required for growth. Helps gums, teeth and bones. Plays an important role in healing processes. Sources include citrus fruit, green vegetables, potatoes and blackcurrants.

Vitamin D: Essential for growth and development of bones and teeth. Involved in the absorption of calcium and phosphorus. Sources include fish oil, dairy produce, as well as being activated by sunlight on the skin.

Vitamin E: Helps prevent and dissolve blood clots. Supplies oxygen to the body to give more endurance. Can help prevent blindness in very premature babies and possibly brain hemorrhaging. Sources include wheat germ, vegetable oil, corn, cereals and eggs.

Vitamin K: Is essential for proper blood clotting. Sources include spinach, leafy vegetables, tomatoes and liver.

Vitamins: Six Cooking Tips

- ❑ Don't leave fresh fruit and vegetables soaking, just wash them.
- ❑ Do prepare salads as near to serving time as possible.
- ❑ Don't thaw frozen vegetables before cooking.
- ❑ Do store fruit and vegetables in the refrigerator.
- ❑ Don't peel potatoes before baking or boiling.
- ❑ Do remember that aluminium, enamel or stainless steel cooking pans are best for preserving the vitamin content of food.

Exercise 2. Write out the underlined words to your vocabulary and translate them. (Use the medical dictionary.)

Exercise 3. Make up a dialog about vitamins with your fellow student. Use the text from Exercise 1.

Exercise 4. Speak about every vitamin and its uses. (Look at the text "Vitamins: Their Uses".)

Exercise 5. Memorize pieces of advice from the text "Vitamins: Six Cooking Tips".

LESSON SIXTEEN

I	**Control Test**	
II	**Grammar**	1. Дієслово у Present Continuous (§54). 2. Способи перекладу слова ***one*** (§55). 3. Годинник (§56).
	Suffixes	(n.) -cian
	Prefixes	un-, in-/im-/ir-/il-
III	**Independent Work**	Grammar Exercises

I. Control Test

Variant 1

Exercise 1. Give the plural forms of the nouns.
Knife, foot, dress, plate, game, city, boy, man, box, heart, liver, doctor, child, body, fish.

Exercise 2. Translate the beginnings of the sentences into English.

1. Серце людини складається of four chambers.
2. Серцева перегородка ділить the heart into the left and right heart.

3. Артерії несуть the blood from the heart.
4. Між лівим передсердям and the ventricle there is the mitral valve.
5. Серце знаходиться between the lungs in the chest.

Exercise 3. Put all possible questions to the sentence.
My friend knows everything about this problem.

Exercise 4. Change Present Indefinite into Past Indefinite. Make all necessary changes.
1. I study at the medical school now.
2. He speaks English at today's lesson.
3. My mother likes my cake.
4. She puts her bag on the table.

Exercise 5. Answer the questions.
1. How does one take a pulse?
2. What must the nurse note when she takes the patient's pulse?

Variant 2

Exercise 1. Put the verbs into Past Indefinite.
Work, look, close, examine, make, give, take, put, open, write, read, speak, come, go, begin.

Exercise 2. Translate the beginnings of the sentences into English.
1. Легені, серце і стравохід are internal organs of the chest.
2. Печінка – це найбільший і найважчий орган in the human body.
3. Дві нирки знаходяться behind the abdominal cavity.
4. Печінка руйнує poisons and bacteria which get into the blood.
5. Кожен внутрішній орган людського тіла plays a specific role in the organism.

Exercise 3. Put all possible questions to the sentence.
She has wanted to be a nurse since her childhood.

Exercise 4. Change Past Indefinite into Present Indefinite. Make all necessary changes.
1. Last year I went to the seaside.
2. Yesterday my teacher spoke about the USA.
3. On Monday he wrote a dictation.
4. I put my books on the shelf last Sunday.

Exercise 5. Answer the questions.
1. How does one check blood pressure?
2. What must the nurse note when she checks the patient's BP?

II. Grammar

Present Continuous or Simple?

A. Now or sometimes?

Look at these examples and compare:

Present Continuous	Present Simple
We use the Present Continuous Tense to denote something happening now.	We use the Present Simple Tense for repeated actions.
I'm painting *a picture* means that I am in the middle of doing it.	***I paint*** *pictures* means that I do it again and again.
It's raining *at the moment.*	*It always* ***rains*** *at the weekend.*
Don't switch off the TV. ***I'm watching*** *it.*	*I* ***watch*** *television most evenings.*
Look! That man ***is taking*** *a photo of you.*	*Jeremy is a photographer. He* ***takes*** *photos for a newspaper.*

B. Thoughts, feelings and states

We normally use the Present Simple with verbs of thinking and feeling:

I ***think*** *you're right.*
Julia ***likes*** *her job.*
He ***wants*** *a new bike.*

We also use it to talk about states and permanent facts:

I ***know*** *Jane quite well.*
Paris ***lies*** *on the river Seine.*

C. Temporary or permanent?

Compare:

Present Continuous	Present Simple
We use the Present Continuous for a routine or a situation that we see as temporary, for a short period:	We use the Present Simple for a routine or a situation that we see as permanent:
I'm working *at a sports shop for six weeks.*	***I work*** *at a sports shop. It's a permanent job.*
At the moment they're ***living*** *in a very small flat.*	*They* ***live*** *in a very nice flat.*

D. The Present Continuous with 'always':

In this special pattern ***always*** means 'very often' or 'too often':

Peter is ***always inviting*** *his friends here.* (He very often invites them.)
I'm always making *silly mistakes.* (I make silly mistakes too often.)

Always with the Present Simple means 'every time':

Peter ***always invites*** *his parents to stay at Christmas.*
I ***always make*** *silly mistakes when I'm taking an exam.*

Notes:

compare [kɒm'peə] порівнювати
state [steit] стан
permanent ['pɜ:mənənt] постійний
temporary ['tempərəri] тимчасовий
routine [ru:'ti:n] заведений порядок
mean [mi:n] означати
waste time [weist] марнувати час
outside [ˌaʊt'said] надворі
garage ['gærɑ:ʒ] гараж
cost [kɒst] коштувати
slam [slæm] грюкати
take time off work – не виходити на роботу
politely [pə'laitli] чемно
argue ['ɑ:gju:] сперечатися

Exercise 1. Present Continuous or Simple? ***(see A, B)***

Complete the conversation between two students. Put in the Present Continuous or Simple of the verbs below.

Duncan: *Are you waiting* for someone?
Paul: Yes – for Neil. We *walk* home together most days. We ___[1]___ in the same street.
Duncan: I'm not sure, but I [2] _____ he [3]_____ to Mr Davis about something.
Paul: Yes, I [4]____ . He told me. What about you? What ____ [5]____ here?
Duncan: I [6]___ for the secretary. I can't find her anywhere.
Paul: She isn't here today. She only [7]____ two days a week.
Duncan: Oh, of course. I [8]____ my time then.
(live, think, talk, know, do, look, work, waste)

Exercise 2. Present Continuous or Simple? ***(see A–C)***

Complete the sentences. Put in the verbs below.

I *'m writing* to my parents.
I *write* to them every week
1. It_____outside. It_____down quite hard, look.
2. Normally I_____work at eight o'clock, but I ____ at seven this week. We're very busy just now.
3. Usually I____two newspapers, but not the same ones every day. On Sundays I____ four or five.
4. We_____ a garage next to our house. We _____ somewhere to put the car.
5. I haven't got a car at the moment, so I_____to work by bus this week. Usually I____to work.
6. The sun_____in the east, remember. It's behind us, so we _____west.
7. We _____camping every year. It's a good cheap holiday. Hotels_____too much.
(1. snow, come; 2. start, start; 3. read, buy; 4. build, want; 5. go, drive; 6. rise, travel; 7. go, cost)

Exercise 3. Present Continuous or Simple with *always (see D).* Rewrite the sentences with *always.*

Model:
That boy talks too much. *He's always talking.*
You slam the door after you every time. *You always slam the door after you.*

1. Mrs. James leaves early every day. _____
2. You lose your keys very often.
3. You take time off work too often.
4. I go the wrong way here every time. _____
5. Liz thanks me politely every time. _____
6. The Bensons argue so much. _____

Exercise 4. Write down the time.

15.45; 2.10; 4.12; 8.43; 7.20; 1.10; 13.30; 8.30; 16.25; 12.52.

Exercise 5. Translate the sentences into Ukrainian. Mind the meaning of *one*.

1. I see one student in the lab.
2. If one wants a thing done, one would better do it himself.
3. I want a large box, not a small one.
4. One may ask any questions after the lecture.
5. The laboratory tables are higher than usual ones.
6. One can see one heart, one gullet and two lungs in the chest.

Exercise 6. The suffix *-ian* means national attitude, profession or status. Translate the words, pay attention to the suffix.

Physician, academician, Ukrainian, Italian, Australian, pediatrician, obstetrician.

Exercise 7. Read the words with different prefixes of opposition.

Unnecessary, unimportant, unusual; impossible, impurity; immobile; irregular, irrecognizable, irremissible; illegal, illegible, illiberal; indefinite, invitation, inofficial.

LESSON SEVENTEEN

I	**Speaking**	First Medical Aid (Part I)
II	**Grammar**	1. Дієслово у Past Continuous (§57). 2. Поняття про інфінітив (§58). 3. Прийменники і сполучники часу ***after, till, for, as, since, before*** (§59)
	Suffixes	(n.) -ity, -en
	Prefixes	mal-
III	**Independent Work**	The Strange Doctor

I. Speaking: First Medical Aid (Part I)

Exercise 1. Phonetic exercise. Read the phrases, pay attention to the verb *to be*.

– Can you close the window, please? I'm cold.
– I'm 32 years old. My sister is 29.
– My brother is a policeman. He's very tall.
– John is afraid of dogs.
– It's 10 o'clock. You're late again.
– Ann and I are very good friends.
– My shoes are very dirty. I must clean them.
– I'm tired but I'm not hungry.
– Tom isn't interested in politics.
– Jane isn't at home at the moment. She's at work.
– Those people aren't English. They're Australian.

Exercise 2. Read and learn the following words.

help [help] допомога
aid [eid] допомога
care [kɛə] допомога, турбота
victim ['viktim] жертва, потерпілий
accident ['æksidənt] нещасний випадок
emergency [i'mɜ:dʒənsi] аварійний; екстрений
bleeding ['bli:diŋ] кровотеча
poison ['pɔizn] отрута
breathing ['bri:ðiŋ] дихання
injury ['indʒəri] пошкодження, травма
available [ə'veiləbl] доступний
involve [in'vɒlv] охоплювати, залучати
reassure [riə'ʃu:ə] заспокоювати; запевняти, переконувати
relieve [ri'li:v] заспокоювати
require [rik'waiə] потребувати, мати потребу
urgent ['ɜ:dʒənt] невідкладний, терміновий
shock [ʃɒk] шок
prevent [pri'vent] запобігати
hurt [hɜ:t] заподіяти шкоду; поранити; завдати болю; рана; біль; пошкодження
swelling ['seliŋ] набряк

Exercise 3. Learn the following word combinations.

first aid – перша допомога
sudden illness – раптова недуга
save our souls – врятуйте наші душі, "SOS"
additional problems – додаткові проблеми
to be calm – бути спокійним
act without panic – діяти без паніки
moving the victim – транспортування потерпілого
life-threatening – життенебезпечний, що загрожує життю
consult the doctor – відвідати лікаря
X-ray examination – рентген

Exercise 4. Read and translate the text. Memorize the conditions requiring first aid.

First Aid

Everybody must know how to give first aid. First aid is immediate care rendered to a victim of an accident, sudden illness, or other medical emergency.

Proper first aid can save a victim's life, especially if the victim is bleeding heavily, has stopped breathing or has been poisoned.

First aid also can prevent the development of additional medical problems that might result from injury or illness.

The person who gives first aid must have the best knowledge of it. He must be calm and act without panic.

Treatment should be continued until professional medical help is available.

First aid also involves reassuring the victim, releiving the pain, and moving the victim, if necessary, to a hospital or a clinic.

Remember: "SOS" means "Save Our Souls".

The general steps to take in any situation requiring first aid include the following:

1) call a local emergency medical service or a doctor;
2) provide urgent care (for life-threatening emergencies);
3) examine the victim for injuries;
4) treat the victim for shock.

Here is a list of conditions requiring first aid:

asphyxiation [æs,fiksi'eiʃn] ядуха, асфіксія
bee (sting) ['bi:'stiŋ] бджолиний укус
bleeding ['bli:diŋ] кровотеча
blister ['blistə] пухир
bruise [bru:z] забій, синець
burn [bɜ:n] опік
cuts [kʌts] поpізи
dislocation [,disləu'keiʃn] вивих
drowning ['drauniŋ] утоплення
fainting ['feintiŋ] зомління
fracture ['fræktʃə] перелом
frostbite ['frɒstbait] обмороження
hemorrhage ['heməriʤ] крововилив; кровотеча
hyperthermia [,haipɛ'θɜ:miə] перегрівання
hypothermia [,haipəu'θɜ:miə] переохолодження
nosebleed ['nəuzbli:d] носова кровотеча
poison ['pɔizn] отрута
rabies ['reibi:z] сказ, водобоязнь
shock [ʃɒk] шок
snakebite ['sneikbait] зміїний укус
stroke [strəuk] удар, параліч
sunburn ['sʌnbɜ:n] сонячний опік
unconsciousness [ʌn'kɒnʃəsnəs] непритомність

Exercise 5. Find English equivalents in the text.

Надавати першу допомогу, врятуйте наші душі, могло бути результатом пошкодження, бути повністю обізнаним, негайна медична допомога (екстрена), доступна, життєнебезпечний, полегшення/зменшення болю, заспокоєння потерпілого, транспортування потерпілого, додаткові проблеми, діяти без паніки, надати невідкладну допомогу, врятувати життя людини.

Exercise 6. Name the most common conditions requiring first aid.

Exercise 7. Tell your fellow students about the general steps to take in any situation requiring first aid.

Exercise 8. Read and act out the dialogs.

1

Mother: What's the matter with you, Danny? You have nose bleeding.

Danny: I've fallen down and hurt my nose.

Mother: Sit down, Danny. Lena, give me some cloth and cold water.

Danny: What do you want to do, Mom?

Mother: I'll put a cold compress on your nose. Breathe through your mouth, Danny. That's right. Don't be afraid. The bleeding will stop.

2

Kate: Ma, where are you?
Mother: I'm in the kitchen, Kate. What's the matter?
Kate: My friend Lora feels bad. She has a bad headache and hot skin.
Mother: Where is she?
Kate: She is on the bank of the river. She was lying in the sun for a long time.
Mother: It may be a sunstroke. Is anybody with her?
Kate: Yes, Ann is there.
Mother: Be quick. Run back and take Lora to a shady place. Raise her head a little. Put a wet cloth on her head. I'll take some medicine and come in a minute.

3

Mother: What's the matter with you, Jack? You look pale.
Jack: There is nothing wrong with me, Mom.
Mother: But I see that something is wrong.
Jack: Well, I fell on the skating-rink and hurt my right leg badly.
Mother: Let me take off your shoe, Jack.
Jack: Thank you, Ma. I can do it myself.
Mother: I am afraid you have a fracture.
Jack: Don't be afraid. It's not a fracture. You see there is no swelling.
Mother: You'd better have an X-ray examination.
Jack: All right. I'll consult a doctor.

Exercise 9. Answer the following questions.

1. What is first aid? 2. What are the most common conditions requiring first aid? 3. Can everybody render first aid? 4. What actions does first aid involve? 5. If a person has a nosebleeding, what must you do? 6. What does "SOS" mean?

Exercise 10. Tell your younger sister about first aid, use the following words and phrases in your story.

Immediate care, a victim, medical emergency, bleeding, shock, stopped breathing, is poisoned, be calm and act without panic, general steps, any situation requiring first aid, include, call a doctor, provide urgent care, for injuries, treat the victim for shock.

II. Grammar Exercises

Exercise 1. Make four main forms of the verb, learn them by heart.

to fight	to come
to show	to go
to speak	to take
to think	to bring

Exercise 2. Form Participle I from the verbs.

Model: *to write – writing*

To fight, to improve, to require, to look, to treat, to use, to design, to prove, to surround, to show, to develop, to detect, to give.

Exercise 3. Rewrite sentences using the Past Continuous Tense.

Model: *He always goes to work by car. – He was going to work by car at 7 o'clock yesterday.*

1. I write a letter to Jane every week. – Yesterday noon … .
2. She meets her friends in the evening. – At midnight … .
3. They usually go to the cinema on Sunday. – … at that moment.
4. She eats an orange every morning. – … all yesterday morning.
5. He comes home on Saturdays. – … for two hours yesterday.
6. I read newspapers in the evening. – … from 6 to 8.

Exercise 4. Complete the sentences indicating the necessary points in time.

1. I was doing my homework …
2. She was speaking on the phone …
3. They were washing their car …
4. The nurse was making injections …
5. He was giving first aid …
6. We were reading this text …

Exercise 5. Complete the following sentences translating the words in brackets into English.

1. When the red light switched on, (вона переходила вулицю).
2. She cut her right hand (коли мила посуд).
3. (Медсестра виходила з палати) when the patient asked her to come back.
4. (Медсестра клала гірчичники на спину пацієнта) when the doctor came.
5. (Медсестра міряла температуру пацієнтів) from 6 to 6.30 in the morning.
6. When the nurse came into the room, (лікар обстежував хлопчика).

Exercise 6. Choose the correct form of the verb.

1. The people *(were hurrying, hurried)* home to have a short rest.
2. She *(was writing, wrote)* a prescription when he came.
3. They *(showed, were showing)* a new method in the lab.
4. We were not sure that we *(went, were going)* in the right direction.
5. They *(looked, were looking)* for new types of these cells.

Exercise 7. Form nouns from the adjectives with the help of the suffix *-ity*, pay attention to stress.

Model: *'humid – hu'midity*
'active – ac'tivity

immune	pure
special	susceptible
valid	human
formal	reactive
extreme	regular
probable	major

Exercise 8. Form verbs from the nouns and adjectives with the help of the suffix *-en*.
Model: *(adj.) weak + en – weaken (v.)*
(n.) strength + en – strengthen (v.)
dark – темний
broad – широкий
length – довжина
short – короткий
wide – широкий
sweet – солодкий
high – високий

Exercise 9. Translate the words with the prefix *mal-*. It means "поганий, погано, неправильна дія". Use the dictionary.
Malnourishment, maladjust, malformation, maladminister, malcontent, malpractice, maltreat, maltreatment, malposition, malocclusion.

Exercise 10. Translate the sentences into English, pay attention to the infinitive.
1. Він хоче стати хорошим спеціалістом.
2. Вони хотіли прочитати цю статтю.
3. Її головне завдання – доглядати за пацієнтами.
4. Суглоби допомагають кісткам рухатись.
5. Запобігти грипу – головне завдання наразі.

Exercise 11. Translate the sentences into English, pay attention to the same forms of conjunctions and prepositions.
1. For a long time people wanted to treat diseases.
2. It is difficult for him to move.
3. Since then the number of students in our medical school increased.
4. Since their report, many diseases are caused by different infections.
5. She is at work from morning till night.
6. He wasn't allowed to get up till the temperature was normal again.
7. After dinner we always go for a walk.
8. The victim was moved to the hospital after I gave him first aid.
9. You must wash your hands before every meal.
10. You must wash your hands before you go to the patient.

III. Independent Work: The Strange Doctor

Exercise 1. Read the text.

The Strange Doctor

Their first summer in New England, a man and his wife are going along a strange country road. They are late so he is driving at top speed. In spite of this he notices a large house with a sign announcing that a doctor lives here.

Then something goes wrong with the car and it crashes against a tree. The driver is unhurt but his wife is seriously injured. She is unconscious. The road is a lonely one: there are no other cars and few houses.

The man remembers the doctor's sign some distance away. He takes his wife in his arms, runs back to that house and rings the bell. A tall, grey-haired man opens the door and says he is a doctor. There is no one else in the house.

Together they carry the woman into a dusty, disordered room and lay her upon the operating table. Examining her the doctor says that her skull is fractured and the only chance of saving her life is to operate at once. The husband hesitates but has no choice.

"You'll have to act as an anesthetist", the doctor says, "There is no one else here". Weak and shocked, the man obeys, but, when his wife has been etherized, the doctor with a knife in his hand, advises "You'd better wait outside. I can get on alone now".

The man is standing and looking from the darkness into the lighted room. Suddenly he hears steps and sees three men, two of them are armed and the third is carrying a rope. They are coming slowly to the door.

"For God's sake, wait!" the husband asks. "My wife's skull has been opened; any delay now must mean certain death."

Whispering one of the man asks, "What do you take us for?"

"Thieves."

"No," the man answers. "We work at a neighboring asylum. The man operating your wife is mad. He escaped only two hours ago".

Notes:
asylum [ə'sailəm] психіатрична лікарня
mad [mæd] божевільний
escape [is'keip] тікати
hesitate ['heziteit] сумніватися, вагатися
thief [θi:f] злодій

Exercise 2. Think and answer. Explain your choice.
To your mind, what is the ending of this story? Here are some variants:
1) The husband together with the three men interrupts the operation.
2) The husband does not let the three men interrupt the operation.
3) Do you have any other variant?

Exercise 3. Read the end of the story.

The three men agree to wait until the operation is over. Through the window they see that the operation is finished, then they run to the madman and take him away.

Then they bring back doctors for the woman and she is taken to New York. There she is placed in a hospital under the care of a famous doctor. Carefully examining her fractured skull this doctor says, "Your wife will get well and be normal again, but I can't understand it! Only one operation I know could have saved her, and the only man ever performed that operation successfully. That does not explain anything because that particular man went mad years ago, and now he is in an asylum somewhere in New England."

(Based on C. Pollock)

LESSON EIGHTEEN

I	**Speaking**	First Medical Aid (Part II)
II	**Grammar**	1. Зворот ***to be going to*** для вираження наміру в майбутньому (§60). 2. Дієслово у Future Indefinite та Future Continuous (§61). 3. Питально-заперечні речення (§62)
III	**Independent Work**	Grammar Box: Future Tense

I. Speaking: First Medical Aid (Part II)

Exercise 1. Read the texts about various conditions requiring first aid, translate them.

(The lists of unknown words are given after the texts.)

Exercise 2. Ask your fellow student about first aid in different conditions.

Text 1

Bruises

Bruises (contusions) are usually caused by a bump or a fall, which ruptures small blood vessels under the skin. Blood seeps into the surrounding tissues causing the black and blue color of a bruise.

People who take blood thinners (anticoagulants) or aspirin may bruise easily. A bruise can also develop after blood is drawn.

A black eye is a type of bruise. Apply home treatment for a bruise and inspect the eye.

First Aid

Apply ice or cold packs for 15-minute intervals during the first 48 hours to help vessels constrict and to reduce swelling. The sooner you apply ice, the less bleeding will result.

If possible, elevate the bruised area. Blood will leave the area and there will be less swelling.

Rest the limb so you don't injure it further.

If the area is still painful after 48 hours, apply heat with warm towels, a hot water bottle, or a heating pad.

When to Call the Doctor

If signs of infection develop:

– increased pain, swelling, redness, or tenderness;
– heat or red streaks extending away from the area;
– discharge of pus;
– fever of 100°C or higher with no other cause.

If a blow to the eye causes:

– severe bleeding in the white of the eye, or blood in the colored part of the eye;
– impaired or double vision;

– inability to move the eye normally in all directions;

– severe pain in the eyeball rather than in the eye socket.

If you suddenly begin to bruise easily, or if you have an unexplained recurrent or multiple bruises.

Notes:

bruise [bru:z] синець, забій
contusion [kɒn'tju:ʒən] контузія; забите місце
bump [bʌmp] ударяти(ся); стукати(ся)
rupture ['rʌpʧə] розрив
seep [si:p] просочуватися
black eye – синець під оком
constrict [kən'strikt] звужувати(сь)
reduce [ri'dju:s] зменшувати, знижувати
heating pad – зігріваюча ватно-марлева пов'язка
tenderness ['tendənis] чутливість
redness ['rednis] почервоніння
streaks [stri:ks] смужки; прожилки
pus [pʌs] гній
discharge [dis'ʧa:ʤ] виділення
blow [bləu] удар
double vision ['dʌbl'viʒn] подвоєння в очах
socket ['sɒkit] (тут) очна западина
multiple ['mʌltipl] багаторазовий; багатократний; численний
recurrent [ri'kʌrent] повторний; періодичний; рецидивний

Text 2

Burns

Burns are classified as first-, second-, or third-degree depending on their depth, not on the amount of pain or the extent of the burn. A first-degree burn involves only the outer layer of skin. The skin is dry, painful, and sensitive to touch. A mild sunburn is an example.

A second-degree burn involves several layers of skin. The skin becomes swollen, puffy, weepy, or blistered.

A third-degree burn involves all layers of skin and any underlying tissue or organs. The skin is dry, pale white or charred black, swollen and sometimes breaks open. Nerves are destroyed or damaged, so there may be little pain except on the edge where there is a second-degree burn.

First Aid

Run cold tap water over the burn for 10 to 15 minutes. Cold water is the best immediate treatment for minor burns. The cold lowers the skin temperature and lessens the severity of the burn. Do not use ice, as it may further damage the injured skin.

Remove rings, bracelets, watches, or shoes from the burned limb. Swelling may make them difficult to remove later.

For first- and second-degree burns with intact blisters:

– Leave the burn alone for 24 hours. Don't cover the burn unless clothing rubs on it. If it rubs, cover it with a gauze pad taped well away from the burn. Do not encircle a hand, arm, or leg with tape. Change the bandage after 24 hours, and then every two days.

– After two or three days of healing, the juice from an aloe leaf can soothe minor burns.

– Do not put salve, butter, grease, oil, or ointment on a burn. They increase the risk of infection and don't help heal the burn.

– For second-degree burns, do not break blisters. If the blisters break, clean the area by running tap water over it. Apply an antibiotic ointment, such as Polysporin or Bacitracin, and

cover the burn with a sterile dressing. Don't touch the wound with your hands or any non-sterile objects. Remove the dressing every day, clean the wound and cover it again.

– Aspirin or ibuprofen can help relieve pain from minor burns.

Third-degree burns require immediate medical treatment. Call a health professional as soon as possible.

Notes:

depth [depθ] глибина
outer layer – зовнішній шар
puffy ['pʌfi] набряклий
weepy ['wi:pi] мокнучий, вологий
edge [edʒ] край
lessen ['lesən] зменшувати
damage ['dæmidʒ] пошкодження
remove [rɪ'muv] знімати
rub [rʌb] терти(ся)
gauze pad [gɔ:z] марлевий компрес

Text 3

Shock

Shock may occur due to sudden illness or injury. When the circulatory system is unable to get enough blood to the vital organs, the body goes into shock. Sometimes, even a mild injury will lead to shock.

The signs of shock include:

– cool, pale, clammy skin;
– dilated pupils;
– week, rapid pulse;
– shallow, rapid breathing;
– low blood pressure;
– thirst, nausea, or vomiting;
– confusion or anxiety;
– faintness, weakness, dizziness, or loss of consciousness.

Shock is a life-threatening condition. Prompt care can save lives.

First Aid

Have the person lie down and elevate his legs 12 inches or more. If the injury is to the head, neck, or chest, keep the legs flat. If the person vomits, roll him to one side to let fluids drain from the mouth.

Control any bleeding and splint any fractures.

Keep the person warm, but not hot. Place a blanket underneath him and cover him with a sheet or a blanket, depending on the weather. If the person is in a hot place, try to keep him cool.

Take and count the person's pulse every five minutes.

Comfort and reassure him to relieve anxiety.

Call for help immediately if signs of shock develop.

Notes:

vital organ ['vaitl'ɔ:gən] життєво необхідний орган
loss of consciousness ['kɒnʃəsnis] втрата свідомості

lead [li:d] призводити
clammy ['klæmi] липкий, клейкий
dilated pupils – розширені зіниці
nausea ['nɔ:sjə] нудота
vomiting ['vɒmitiŋ] блювання
faintness ['feintnis] непритомність
dizziness ['dizinis] запаморочення
inch [intʃ] дюйм (міра довжини)
roll [rɒl] повертати
drain [drein] витікати
splint fracture – накладати шину на перелом
underneath [ˌʌndə'ni:θ] внизу; під
anxiety [æŋ'zaiəti] тривога, стурбованість, занепокоєння

Text 4

Spinal Injuries

Any accident involving the neck or back must be considered a possible spinal injury. Permanent paralysis may be avoided if the injured person is immobilized and transported correctly.

Signs of a spinal injury include:
– severe pain in the neck or back;
– bruises on the head, neck, shoulders, or back;
– weakness, tingling, or numbness in the arms or legs;
– loss of bowel or bladder control;
– bleeding or clear fluid discharge from the ears or nose;
– unconsciousness.

First Aid

If you suspect a spinal injury, do not move the person unless there is an immediate threat to life, such as fire. Don't drag victims from automobile accidents.

If the person is in immediate danger, keep the head and neck supported and aligned while you move him to safety.

If it was a diving accident, don't pull the injured person from the water as you may cause permanent damage. Float the person face up in the water until help arrives. The water will act as a splint and keep the spine immobile.

If you suspect a spinal injury, call a health professional to transport the injured person.

Notes:

permanent paralysis – повний параліч
tingling ['tiŋgliŋ] відчуття дзвону у вухах
numbness ['nʌmnis] оніміння
bowels ['baʊəlz] кишки
drag [dræg] тягнути, переносити
diving accident – нещасний випадок при пірнанні (у воду)
float [fləʊt] тримати(ся) на воді

Text 5

Unconsciousness

An **unconscious** person is completely unaware of what is going on and is unable to make purposeful movements. Fainting is a form of brief unconsciousness; a coma is a deep, prolonged state of unconsciousness.

Causes of unconsciousness include stroke, epilepsy, heat exhaustion, diabetic coma, insulin shock, head or spinal injury, suffocation, drunkenness, shock, bleeding, and heart attack.

Fainting is a partial loss of consciousness. Light-headedness is a mild form of shock, and is usually not serious. If it happens often, there may be a more serious problem. Dizziness and fainting can also be brought on by sudden emotional stress or injury.

First Aid

Make sure the unconscious person can breathe. Check for breathing and, if necessary, open the airway and begin rescue breathing.

Keep the person lying down.

Check the pulse. If there is none, call for help and start cardiopulmonary resuscitation (CPR).

Treat any injuries.

Do not give the person anything to eat or drink.

Look for medical identification, such as a bracelet, necklace, or card that identifies a medical problem such as epilepsy, diabetes, or drug allergy.

If the person has diabetes, he or she may have **insulin shock** (low blood sugar) or be in a **diabetic coma** (too much sugar in the blood).

When to Call the Doctor

If someone has completely lost consciousness.

If unconsciousness follows a head injury. A head injury victim needs to be carefully observed.

If a person with diabetes loses consciousness.

Notes:

completely [kəmp'li:tli] повністю
unaware [ˌʌnə'wɛə] який не знає, не підозрює; непоінформований
purposeful ['pɜ:pəsful] цілеспрямований
brief [bri:f] короткий
coma ['kəʊmə] кома (стан)
exhaustion [ig'zɔ:stʃən] виснаження
suffocation [ˌsʌfə'keiʃən] задушення; ядуха
drunkenness ['drʌŋkənis] алкогольне сп'яніння
heart attack ['ha:təˌtæk] серцевий напад
partial ['pa:ʃiəl] частковий
light-headedness – легке запаморочення
cardiopulmonary resuscitation (CPR) – відновлення роботи серця і легенів
medical identification – медична ідентифікація
drug allergy [drʌg'ælə:dʒi] алергія на ліки
insulin shock – інсуліновий шок (низький вміст цукру в крові)
diabetic coma – діабетична кома (збільшений вміст цукру в крові)

Text 6

Cuts, Bleeding

When you see a cut (laceration), the first steps are to stop the bleeding and determine whether or not stitches are needed.

If stitches are not needed, you can clean and bandage the cut at home. Bleeding from minor cuts will usually stop on its own or with a little direct pressure.

First Aid

Wash the cut well with soap and water.

Stop any bleeding by applying direct pressure over the wound for 10 to 15 minutes.

Leave small cuts unbandaged, unless they will become irritated. They heal best when exposed to the air.

If a cut needs bandaging, apply antibiotic ointment (Polysporin or Bacitracin). The ointment will keep the cut from sticking to the bandage. Do not use alcohol, hydrogen peroxide, iodine, which can harm tissue and slow healing.

Use an adhesive bandage (Band-Aid) to continue the pressure. Always put an adhesive strip across a cut rather than lengthwise.

If the cut is long, use more than one bandage.

Apply a clean bandage at least once a day, or when it gets wet. Leave the bandage off whenever possible.

When to Call the Doctor

If the cut needs stitches. They need to be done within eight hours.

If a cut continues to bleed through bandages after 15 minutes or under direct pressure.

If the person goes into shock, even if a bleeding has stopped.

Stopping severe bleeding:

– have the person lie down and elevate the site that is bleeding;

– remove any visible objects. Do not attempt to clean out the wound;

– press firmly on the wound with clean cloth or the cleanest material available. If the edges of the wound gape, hold them together. If there is an object in the wound, apply pressure around the cut, not directly over it;

– apply steady pressure for 15 minutes. If blood soaks through the cloth, apply another one without lifting the first. Maintain steady pressure;

– if direct pressure does not slow or stop bleeding after 15 minutes, press firmly on a pressure point between the wound and the heart. Continuous pressure on these points can stop the bleeding with less risk than a tourniquet. Tourniquets should be used *only* as a last resort;

– watch for shock;

– call in an ambulance or go to the emergency room if the bleeding has not been controlled after 15 minutes.

Notes:

stitches ['stiʧiz] шви (на рані)
bandage ['bændiʤ] (за)бинтувати; накладати пов'язку, пов'язка
irritated [iri'teitid] подразнений
heal [hi:l] виліковувати, загоювати (рани)
sticking – прилипання, приклеювання
gape [geip] зяяти (про рану)
soak [səuk] просочитися
maintain [mein'tein] підтримувати; зберігати
steady ['stedi] стійкий; міцний
tourniquet ['tuənikei] турнікет, джгут
ambulance ['æmbju:ləns] машина швидкої допомоги
adhesive strip [əd'hi:siv'strip] лейкопластир
across [ək'rɒs] поперек
lengthwise ['leŋθwaiz] уздовж

II. Independent Work: Future Tense

There are a number of different ways of expressing the future. The form of the verb depends on whether the speaker is talking about what he/she intends to do (*I **am going to get** a job*) or about a timetable (*The term **starts** on September 10th*), and so on.

Sometimes more than one form is possible, e.g. *I'm **leaving** school* OR *I'll **be leaving** school.*

A. I'm going or I will?

We use **be going to** for an instant intention:

*I'm **going to get** a job, I've decided.*

*We're **going to have** a picnic.*

We also use **be going to** for a prediction based on the present:

*Look at the time. We're **going to be** late.*

We use **will** for an instant decision:

*I feel really ill. – I'll **call** the doctor then.*

*We'll **give** you a lift.*

We also use **will** for a prediction about the future:

*I'll **be** free at five o'clock.*

*You'll **enjoy** the course, I'm sure.*

We can often use either **be going to** or **will** for a prediction:

*We're **going to need** some help* OR *We'll **need** some help.*

B. I'm going or I do?

We use the Present Continuous for an arrangement:

*I'm **playing** basketball tonight. I'm in the team.*

We use the Present Simple for a timetable:

*We **leave** tomorrow morning at half past seven.*

We also use it after **when, before,** etc.

*I'll tell you **when I see** you.*

C. I'll be doing and I'll have done

We use **will be doing** for an action over a period of future time:

*At this time tomorrow I'll **be driving** up the motorway.*

We use **will have done** for something that we will finish in the future:

*I'll **have finished** my homework by eight o'clock.*

We also use **will be doing** for the result of a routine:

*I'll **be visiting** my parents tomorrow. I visit them every Sunday.*

D. Be about and be to

We use **be about to** for the very near future:

*The plane is at the end of the runway. It **is about to take** off.*

*Hurry up. The program **is about to start.***

We use **be to** for an arrangement:

*The Queen **is to visit** Portugal in November.*

*The Student Games **are to take** place in Melbourne next year.*

Exercise 1. Choose the correct verb form in the brackets.

1. How's your flat? – Well, the rent is very expensive. I to a new place. I decided last week. *('ll move/'m going to move)*

2. I can cycle home. – Have you got lights? It dark, don't forget. *('ll be/'ll have been)*

3. I'd like a photo of Adrian and me. – Well, I_____ one with your camera then. *('ll take/'m going to take)*

4. Have you booked a holiday? – Yes, we ____ to Spain. *(go/'re going)*

5. Look at that car! It ____ . *('ll crash!/'s going to crash!)*

6. Can I borrow your bike on Monday, please? – Oh, I'm afraid ____ it. I always cycle to work. *(I'll be using/I'll have used)*

Exercise 2. What do these people say? Pay special attention to the underlined words:

Model: Maria is predicting a win for Italy in their next match. Maria: *Italy will win their next match.*

1. Bob intends to get up early tomorrow.
   Bob: I
2. Steve's train timetable says 'Arrival 10.30'.
   Steve: The train
3. Louise has arranged to see her bank manager tomorrow.
   Louise:
4. Dan will leave in the very near future.
   Dan:

Exercise 3. Translate the sentences:

a) 1. The students are going to translate the new text. 2. What are you going to do? 3. I am going to fulfill this task. 4. The doctor is going to examine this patient today. 5. The third-year students are going to work at this department. 6. I am going to visit my friends. 7. They are going to learn English next year. 8. He is going to take his examination on Monday.

b) 1. This month my friend is going to London. 2. I am going to leave for London with him. 3. They are translating a new text now. 4. We are going to translate this text too. 5. Nina is going to the library now. 6. I am going to take an English textbook in our library.

LESSONS NINETEEN–TWENTY

I	**Texts for Home Reading**
II	**Grammar Exercises**

(Ці резервні заняття можна використати для читання пізнавальних текстів та закріплення граматичного матеріалу, вивченого протягом семестру)

I. Texts for Home Reading

Text A

Early Folk Medicine

The **"medicine" of prehistoric man**[1] was probably based on an animistic attitude towards disease. In this view, disease **was caused by the devil**[2], influence of the enemy, a demon, **a**

god[3], an animal and it was to be treated by means of **dislodging the malevolent cause**[4]. Early man may have attributed disease to **a separation of soul and body**[5]. In any case, there doubtless arose the class of men who claimed skill in **the art of healing**[6], and whose methods of treatment included dancing, grimacing, **sleight of hand**[7], and all **the tricks of the magician**[8].

In some cases it was necessary to combine physical with physic methods; of this we have an excellent example in trephining, which originated as a means of permitting the escape of an evil spirit from the head of the victim, and which gradually became a method of treating skull fractures and various **intracranial lesions**[9].

Notes:

[1]"medicine" of prehistoric man – доісторична медицина
[2]to be caused by the devil – бути спричиненим злим духом
[3]god – бог
[4]to dislodge the malevolent cause – усувати лиху причину
[5]separation of soul and body – відокремлення душі від тіла
[6]art of healing – мистецтво лікування
[7]sleight of hand – жонглерство
[8]tricks of the magician – чаклунські трюки/хитрощі
[9]intracranial lesion ['li:ʒn] – внутрішньочерепне ураження

Exercise 1. Read and translate the text.

Exercise 2. Write down new words in your vocabulary.

Exercise 3. Ask questions based on the text.

Text B

Higher Education in Ukraine

There are different institutes and universities in almost all large cities of Ukraine. They train various specialists using such forms of education as daytime, part-time and extramural.

Young people between the age of 17 to 35 who have finished secondary or technical schools may enter universities or institutes.

To enter there many applicants take competitive examinations. Those who show good results at the examinations become first-year students.

During an academic year students must attend lectures on different subjects. They have practical classes and carry out laboratory experiments.

At the end of each term students take end-of-term tests and examinations. From the second year many students begin to do their research work. Senior students acquire their professional skills working at different enterprises or institutions. Medical students have their practical training in different hospitals and polyclinics.

On completion of study they take final examinations or present a graduation thesis. The course of study at most institutes lasts five years but doctors' training at some departments takes 6 years. After graduating from a medical institute young doctors work as interns during a certain period.

Higher schools of Ukraine have international ties with schools of other countries. Many young people from abroad come to Ukraine to get higher education. Then they return to their countries to work.

Our scientists have various contacts with specialists from many countries. They take an active part in numerous conferences, symposia, seminars which are held in Ukraine or abroad. These international contacts contribute a great deal to strengthening friendship and cooperation among the nations.

Exercise 1. Read and translate the text.

Exercise 2. Answer the questions.

1. What forms of education do our institutes and universities use? 2. What age may young people enter an institute or a university at? 3. What examinations do applicants take to enter a higher educational establishment? 4. What must students do during the academic year? 5. When do a students take end-of-term tests and examinations? 6. Where do senior students acquire their professional skills? 7. Where do medical students have their practical training? 8. How long does a course of study last at different higher schools (institutes, universities)? 9. Do Ukrainian higher schools have ties with other countries? 10. What contacts do our scientists have with specialists from foreign countries?

Exercise 3. Make a plan of the text.

Text C

English Universities and Colleges

The oldest universities in Great Britain are Oxford and Cambridge. Many universities are fairly new. Modern English universities are in large cities, such as London, Leeds, Manchester, Birmingham and others. London University is the biggest of the modern English universities. In many ways the London University has departed from the traditions of Oxford and Cambridge. It consists of various colleges and other institutions. It has medical schools too.

A university usually has both faculties and departments. The most common faculties are medicine, law, arts, science and theology. There are various departments, such as engineering, economics, commerce, agriculture, music, etc.

The course of studies at a university lasts six years. The curriculum is wide. All universities admit men and women but the share of men is 75 per cent.

Each faculty is headed by one or more professors. A staff of lecturers and tutors (teachers) help them. Professors and lecturers give lectures to large numbers of students, and tutors teach smaller groups.

Colleges provide specialized training. There are medical, teachers', technical and other colleges at a university. The course of studies at a college is only three years. At medical colleges students study various subjects, learn to treat patients and have practical work at hospitals. After graduating from a college they are given a certificate.

Students pay for taking exams, for attending lectures, for taking books from the library.

A student being a great success in study may take a degree of Bachelor of Arts or of Science.

Exercise 1. Read the text and translate it, answer the questions.

1. What universities are the oldest ones in Great Britain? 2. What cities are modern English universities located in? 3. What university is the biggest of the modern universities? 4. What colleges does London University consist of? 5. What faculties are the most common ones? 6. What departments are there at a university? 7. How long does the course of studies last? 8. Whom is each faculty headed by? 9. What kind of training do colleges provide? 10. What colleges are there at a university? 11.What do students study and learn at medical colleges? 12. What do students pay for? 13. What degree may a student being a great success in study take?

Exercise 2. Write a short text about London University using the table.

London University It	is consists of has	the biggest modern university. various colleges and institutions. medical schools too.

Exercise 3. Translate the sentences.

1. Лондонський університет – найбільший із сучасних університетів Великобританії. 2. У нього входить кілька медичних шкіл і коледжів. 3. Він складається з різних коледжів і навчальних установ. 4. Він не має давніх традицій.

Exercise 4. Tell about education in Great Britain using the following word combinations.

The oldest English universities; modern universities; London University; its colleges and medical schools; the course of studies; the most common departments; university staff; colleges and their specialized training; medical colleges; pay for study; taking a degree of Bachelor of Science.

Text D

– What do you think of school?

Emma: I go to Newtown School of Performing Arts so in some ways it's different from a normal school. We learn all the same subjects but there is a lot more emphasis on drama, dance and music. I had to do an audition to get into the school.

– Is there anything that you think you should be taught but are not?

Our school is quite progressive so we have to learn a lot about things like drugs and AIDS so I think it's a good curriculum. I think it might also be useful to learn things like how not to be awkward around guys.

Jesse: School does not affect me too much. I go to quite a good school but for me the most important thing about the school is the other kids going there. That can make your school experience brilliant or terrible. Kids can sometimes gang up against each other, then it's horrible. They are often horrible to people who get good marks. They think that they are swots.

– Is there anything that you think you should be taught?

We don't learn psychology. I think that's really bad.

Ned: I don't know if it's a good thing or a bad thing but school influences me quite a lot. That's not surprising when I spend three quarters of my life there.

– Is there anything that you think you should be taught but are not?

How to deal with gangs and bullies. I want to learn self-defence.

We also met Rhyll and Peta who both get their education in a very different way to the teenagers whom we met on Bondi Beach...

Rhyll: My sister, brother and I all go to the School of the Air (SOTA). I love it. We have our lessons in a small bus and we speak to the teachers over the radio. We have to do this because we live in a place called William Creek and it's 203 kilometers from the nearest town. The only alternative to SOTA is to go to boarding school. Also, there are only 11 people in William Creek; my family, two pilots and two people who own the pub.

– Is SOTA very different from normal school?

Sort of. Yes and no. I used to go to a normal school but then my family moved here. I think I prefer SOTA, although they are quite similar. We have normal timetables, we post homework to our teachers in another town regularly. We even have school assembly over the radio every morning. It's like every school; we like some teachers and dislike others. I used to dislike my old Indonesian teacher because she made the lessons too hard but I like the new one a lot. We feel the same kind of relief as other kids when a class is cancelled.

Peta: I really like SOTA too. Some people think it's more difficult to learn like this but it's just the same. We receive everything through the post: books, chemistry things and tapes for learning language.

– Are there any disadvantages to doing SOTA?

No, I don't think so. I like the freedom of it. Sometimes it feels strange going to school in a bus in our backyard but we do it. We also sometimes have a local teacher who supervises and helps us. Some people might miss having other kids in the class but we see our friends at the weekends. We have to fly to see them. Also, we never used to have a phone line in William Creek but now we do. It cost $ 1.6 million to install but now we can talk to friends. Some people might think our life is strange but it's just a different lifestyle. For example, Louis, my brother who is only nine years old, is learning to drive a Jeep. That doesn't happen in Sydney, does it?

Notes:

audition [ɔ:ˈdiʃn] прослуховування
bully [ˈbʊli] хуліган
curriculum [kəˈrikjʊləm] навчальний план
similar [ˈsimilə] подібний
awkward [ˈɔ:kwəd] ніяковий
post [pəʊst] переслати поштою
affect [əˈfekt] діяти, впливати
assembly [əˈsembli] збори
gang [gæŋ] зграя; банда
cancel [ˈkæns(ə)l] скасовувати
swot [swɒt] зубрило
disadvantage [ˌdisədˈvɑ:ntiʤ] недолік
influence – впливати
supervise – стежити, наглядати
deal – мати справу
install – встановлювати

Exercise 1. Read the interviews with foreign teenagers.

Exercise 2. What kinds of school do Emma, Jesse, Ned, Rhyll and Peta speak about?

II. Grammar Exercises

Exercise 1. Match the nouns and verbs with common roots and translate them.

a)			**b)**	
investigate	provision		ventilate	prevention
add	isolation		enter	entrance
provide	existence		find	finding
derive	application		dissolve	cleanliness
characterize	preservation		specialize	ventilation
connect	investigation		measure	measurement
exist	derivative		prevent	solution
saturate	connection		clean	speciality
preserve	saturation		determine	requirement
apply	addition		contaminate	solidification
isolate	characteristics		require	division
			solidify	determination
			divide	contamination

Exercise 2. Write down four forms of the following verbs.

To get, to study, to know, to rise, to fall, to do, to eat, to drink, to see, to feel, to forget, to hold, to say.

Exercise 3. Say what you do every day and what you did yesterday.

Exercise 4. Translate the sentences with the indefinite pronouns *some, any, many, much, few, little.*

1) He asked me some questions.
2) There isn't any milk in the glass.
3) Many people attend the library.
4) The paper contains a few new details.
5) The tables show little correlation.
6) The results became stable in a few weeks.
7) The students study English. They need much help from a teacher.
8) Do you learn any foreign languages?

Exercise 5. Translate the sentences into English using the verbs.

a) to make, to do:

1. Цей студент не зробив багато помилок у контрольній роботі і отримав хорошу оцінку.
2. Хто виконав цю роботу вчора?
3. Які вправи ви зазвичай робите вдома?

b) to tell, to speak:

1. Моя сестра добре говорить англійською.
2. Ми часто говоримо про нашу роботу.
3. Будь ласка, поговори з нею про це ввечері.
4. Я не сказав їй про це вчора.

c) to leave, to graduate:

1. Коли ти закінчив школу? — Я закінчив її у 2005 році.
2. Де ти залишила свій зошит?
3. Він зазвичай залишає тут свій портфель.

d) to leave (for), to go:

1. Вони поїхали з Києва минулого тижня.
2. Коли ти їдеш до Києва?
3. Він поїхав у село і проведе там усе літо.

e) to finish, to be over:

1. Урок закінчився?
2. Іноді його робота закінчується о п'ятій.
3. Він завершив писати книгу.
4. Медсестра закінчила робити ін'єкцію.
5. Наші заняття закінчуються пізно.

Exercise 6. Make up questions to the underlined words. The number of questions is given in brackets.

1. They didn't go to any foreign countries. (3) 2. We saw this new film. (3) 3. His friend translated two English books into Ukrainian. (3) 4. The doctor examined this bed patient. (2)

Exercise 7. Answer the questions.

1 1. What kind of books do you like to read?
2. What did you do yesterday?
3. Which lesson are you doing now?
4. When are you going to have the test?
5. How long will it take you to go home?

2 1. What kind of TV shows does your friend like to watch?
2. Which book did you read last week?
3. Did you like it?
4. When are you going to give it to me to read?
5. Can you give me the book now?
6. What do you think she is doing now?

3 1. Does the nurse usually make injections?
2. Did the doctor prescribe the medicine?
3. What medicine are you going to take?
4. Where are you going to buy it?

Exercise 8. Explain how to take a pulse and how to check BP.

Exercise 9. Complete the questions and answer them.

Can you…	to close, to open
May I…	to sit down, to come
Could you…	to see, to use, to talk
Shall we…	to tell, to finish
Will you…	to give back, to show
Must they…	to play, to hear
Won't we…	to meet, to bring

Exercise 9. Make up dialogs.

1. Привітайтеся з містером Блеком; скажіть, що ви раді знову бачити його в Україні; запитайте, як довго він збирається бути тут.

2. Подзвоніть доктору Брауну; привітайтесь, домовтесь про зустріч у середу о 9-ій.

3. Запитайте свого друга про здоров'я; чи він уже одужав; запропонуйте допомогу з домашніми завданнями.

4. Запропонуйте подрузі сісти, висловіть співчуття з приводу того, що стоїть погана погода, пригостіть її чашечкою кави.

5. Представте групі нового студента, скажіть, що він приїхав зі столиці і буде завершувати навчання у нашому коледжі.

MEDICAL SERVICE

LESSON TWENTY-ONE

I	**Speaking**	Diseases. Symptoms
II	**Grammar**	1. Дієслово в Present Perfect (§63). 2. Present Perfect зі словами ***since, for a long time, for ages*** (§64). 3. Складнопідрядні означальні речення (§65)
III	**Independent Work**	From the History of Medicine

I. Speaking: Diseases. Symptoms

Exercise 1. Phonetic reading. Read the following words and word combinations, translate them.

Blood – to make one's blood tests, to take blood from a finger, to take BP, his BP is normal, his BP is abnormal.

X-ray – to be X-rayed, to X-ray, an X-ray examination, an X-ray room, to X-ray the patient's stomach, his lungs were X-rayed.

Nurse – nurses, a nurse on duty, a ward nurse, to work as a nurse.

Obstetrician – obstetricians, an obstetrician on duty, to work as an obstetrician.

Diagnosis [ˌdaiəg'nəʊsis] – diagnoses, to make a diagnosis, a correct diagnosis, he made a diagnosis of influenza.

To prescribe – to prescribe treatment, to prescribe some medicines, to give a prescription.

Trouble – a serious trouble, to trouble, to complain of some troubles, a heart trouble, a lung trouble, a stomach trouble, don't trouble trouble till trouble troubles you.

Exercise 2. Read and learn the following words.

headache ['hedeik] головний біль
e.g. I have a bad headache.
toothache ['tu:θeik] зубний біль
e.g. His toothache was so bad.
stomachache ['stʌməkeik] біль у животі
e.g. He is suffering from a stomachache.
earache ['iəreik] біль у вусі
e.g. The child cries because of his earache.
heartache['hɑ:teik] біль у серці
e.g. He has a heartache.
sore throat ['sɔ:'θrəʊt] біль у горлі
e.g. The baby has a sore throat and a high temperature.
bleeding ['bli:diŋ] кровотеча
e.g. You must stop bleeding as soon as possible.
cough [kɒf] кашляти; кашель
e.g. He asked me to cough.
cold in the head – нежить
e.g. Influenza is not a cold in the head.
fracture ['frækʧə] перелом
e.g. There are open and closed fractures.
sunstroke ['sʌnstrəʊk] сонячний удар
e.g. He can get a sunstroke. It's very hot today.
fever ['fi:və] лихоманка; висока температура
e.g. She had a bad fever.
temperature ['tempriʧə] температура
e.g. Her son had a high temperature in the evening.

Exercise 3. Learn the following word combinations.

a bad headache (heartache, earache, stomachache, toothache) – сильний головний біль (біль у серці, у вусі, у животі, зубний)
to take a tablet for ... – прийняти таблетку від ...
to rinse the mouth – полоскати рот
to keep to a diet – дотримуватись дієти
to apply a hot compress on ... – покласти теплий компрес на ...
to listen to heart sounds – прослухати серце
a bad (weak) heart – слабке серце
to gargle the throat – полоскати горло
a dry (bad) cough – сухий (сильний) кашель
a bad cold in the head – сильний нежить
a running nose – нежить
to apply splints – накладати шини
to apply plaster cast – накласти гіпс
to cool the body – охолодити тіло
to keep (stay) in bed – залишатися в ліжку
to catch a cold – застудитися

Exercise 4. Make up sentences.

Peter	has	a headache.
Ann	hasn't	a bad cough.
Tom	have	a weak heart.
I	haven't	a running nose.
We		a high temperature.
		a sore throat.
		a severe pain in the leg.
		a cold in the head.

Do you	keep	to the heart and lungs?
	listen	splints or plaster cast?
	gargle	a diet?
	apply	in bed?
	catch	a bad cough?
	have	a bad cold?
	take	a tablet for a headache?

Exercise 5. Fill in the blanks with the necessary words.

1. This patient has a weak .... *(throat, cough, heart)*
2. If you have a toothache, ... your mouth every hour. *(gargle, rinse)*
3. You must ... the bleeding quickly. *(stop, finish, end)*
4. Take a ... for a headache. *(compress, splints, tablet)*
5. If you often have a stomachache, you must ... to a diet. *(hold, carry, keep)*

Exercise 6. Translate into English.

1. У хлопчика відкритий перелом ноги, накладіть йому шину.
2. Я прийняла таблетку від головного болю дві години тому.
3. Він застудився і тепер кашляє, чхає і в нього сильно болить горло.
4. У дитини боліло вухо, і мама поставила на нього теплий компрес.
5. Лікар прослухав його серце і легені.

Exercise 7. Read and act out the dialogs.

1

A: Good morning.
B: Good morning. What is your name?
A: My name is ... .
B: What is the matter with you?
A: I have had a stomachache for a week.
B: Show me with your finger the place where it hurts (болить) you.
A: Here, doctor.
B: We must take an X-ray picture of your stomach and test the blood and urine ['juəri:n] (сеча).

2

P: Oh doctor, I have pain in my back.
D: Do you feel the pain all the time?
P: No, I don't. Only sometimes.
D: Here are tablets. Take one tablet five minutes before the pain begins.

3

D: Tell me your trouble, young man.
P: Well, I have caught a cold. I have a running nose, a bad cough and it's hard for me to swallow (ковтати).
D: Open your mouth and say "Ah". Now, I am going to listen to your lungs. Got a temperature?
P: Yes, but not very high – 37.5°C.
D:There is nothing serious. Keep in bed for a few days and take these medicines.

Exercise 8. Read, translate the text and be ready to answer questions.

When We Have Pain

When we have a headache, an earache, a stomachache, a toothache, a cold, a sore throat or a pain in some other parts of the body, we go to the doctor. He takes our temperature and feels our pulse. He listens to our heart and lungs. He examines our stomach and checks our blood pressure. He asks what hurts us, and tells what the matter is with us. He says, "You have caught a cold", "You have a slight temperature", "You have a flu (грип)", or "Your have a heart disease".

The doctor gives us a prescription. We must take the medicine. If we follow doctor's instructions, we get better. If we disobey the doctor, we may get worse. And when we don't get better at home, we must go to the hospital.

Exercise 9. Answer the questions.

1. What do you do when you are ill?
2. What does the doctor do?
3. What do you feel when you have a flu?
4. Why must we follow doctor's instructions?
5. Whom do you consult when you have a headache (a sore throat, a broken leg, a stomachache)?

Exercise 10. Read and retell the text.

Fever

Fever is a rise of body temperature above normal. The symptoms of high temperature are headache, aches all over the body, red face, hot dry skin, loss of appetite, quick pulse and breathing.

A feverish person must be put in bed, not allowed to get out of bed, drink much water. The nurse must keep the patient warm, give him warm drinks. When the patient is sweating, replace the damp bedclothes as quickly as possible and dress the patient in a clean warm bedgown or pyjamas. When the temperature is normal, the patient may sit in bed and then have a short walk.

Exercise 11. Communicative situations.

1. You complain to the doctor of the illness you have.
2. Tell about the nurse's duties when she cares for a feverish patient.
3. Your friend has caught a cold during your visit to England and you have to act as an interpreter.

II. Grammar Exercises

Exercise 1. Name the parts of speech of the following words.

Developer, undeveloped, newly, electronic, diagnostic, diagnostician, condition, connected, connective, connection, sensor, sense, sensitive, mathematician.

Exercise 2. Make up sentences, pay attention to the meaning of the verb *to have*.

I have	a normal pulse.
She has	three children.
We have	a good dictionary.
He has	to perform the operation.
	to speak to the doctor.
	asked some questions.
	described the new method.

Exercise 3. Learn the meanings of the word *since*.

Частина мови	Відношення	
	причини	часу
прислівник	–	з тих пір
прийменник	–	з (після чого)
сполучник	оскільки	з тих пір як

Translate the sentences.

1. 60 years have passed since that event.
2. Since then a number of other substances have been isolated.
3. Since their report, numerous studies have shown a relation between these diseases.
4. I haven't seen him since last month.
5. We have seen the effect many times since.

Exercise 3. Translate the sentences. Mind the tense of the verbs.

1. Цю нову лікарню щойно збудували.
2. Я вже ходив до лікаря.
3. У мене був сильний кашель, нежить і боліло горло.
4. Лікар коли-небудь приходив до тебе додому?
5. Ти вже прийняв ліки і прополоскав горло?
6. Він коли-небудь відвідував цього лікаря?
7. Медсестра щойно зміряла пульс і тиск у цього лежачого хворого.
8. Він сьогодні вже оглянув усіх своїх пацієнтів.

Exercise 5. Translate the sentences into Ukrainian. Pay attention to the introduction of the attributive clause.

1. The valves which direct one-way blood flow are found in the heart. 2. The symptoms of flu may be all those present in case of cold. 3. A special test that shows what blood composition must be used. 4. The present problem includes 10 patients with influenza who were under special care. 5. The patients the doctor examined were all children.

III. Independent Work: From the History of Medicine

Exercise 1. Read the text and translate it.

From the History of Medicine

The search for health is as old as the history of mankind.

In Babylon it was a custom to show the sick in the streets, so that passers-by could say how to treat the sick from their own experience. It was not allowed to pass a sick man in silence.

A papyrus was found dating back to 1600 B.C. about surgery and treatment of wounds. Then another papyrus was found with about 900 prescriptions, some of these prescriptions are used by doctors today. People learn much from Egyptian manuscripts and from embalmed bodies. Examination of some of these bodies showed many interesting facts. For example people of those times knew such diseases as rheumatoid arthritis, tuberculosis and appendicitis.

Notes:

search [sɜ:ʧ] пошук
custom ['kʌstəm] звичай
passers-by ['pɑ:səzbai] перехожі
Papyrus [pə'paiərəs] папірус
B.C. ['bi:'si:] (Before Christ) до нашої ери
manuscript ['mænjuskript] манускрипт, рукопис
embalmed [im'bɑ:md] забальзамований

Exercise 2. Answer the questions.

1. What was the custom in Babylon?
2. What did passers-by have to do when they passed a sick man?
3. What papyrus was found dating back to 1600 B.C.?
4. What did people learn from Egyptian manuscripts and embalmed bodies?

Exercise 3. Name all the diseases you know.

Exercise 4. What famous names in the history of medicine do you know? The text below will give you some more information.

Clinical medicine and health protection greatly developed in Roman times. The name of Galen is widely known. Galen worked first as a surgeon at a school for gladiators. He went to Rome when he had much practice, but he continued to experiment on living animals, especially apes and pigs.

The Roman army had a well-organized service of surgeons. The gladiators school was an ideal school for training in surgery.

Notes:

protection [pro'tekʃn] охорона
Roman ['rəumən] римський
surgeon ['sɜ:ʤən] хірург
gladiator ['glædieitə] гладіатор
ape [eip] людиноподібна мавпа
service ['sɜ:vis] служба
training ['treiniŋ] тренування; підготовка; навчання
develop [di'veləp] розвивати
organize ['ɔ:gənaiz] організовувати
Galen ['geilin] Гален (давньогрецький лікар, анатом, фізіолог)

LESSON TWENTY-TWO

I	**Speaking**	Things for Nursing
II	**Grammar**	1. Дієслово у Past Perfect (§66). 2. Складнопідрядні додаткові речення (§67).
	Suffixes	(n.) -ness
	Prefixes	post-, pre-, re-, extra-
III	**Independent Work**	Medicine

I. Speaking: Things for Nursing

Exercise 1. Phonetic reading. Read and translate the following words and word combinations.

A headache: to have a headache, to have a bad headache, to complain of a headache, to suffer from a headache.

A sore throat: to have a sore throat, to suffer from a sore throat, to gargle the throat.

A pulse: to feel one's pulse, his pulse is normal, her pulse was abnormal.

To catch (caught, caught): to catch a cold, to catch a bad cold, she caught a severe cold.

To sneeze: to be sneezing, he's sneezing, why are you sneezing?

To cause [kɔ:z] – викликати, спричиняти: to cause pain, to cause a complication, to cause a serious complication, what caused these complications?

Cough: to cough, to be coughing, I'm coughing, to have a bad (dry) cough.

Fever ['fi:və]: a bad fever, to keep the fever down, to have a bad fever, I am feverish.

Exercise 2. Read and learn the following words.

air-ring ['ɛəriŋ] надувний круг для профілактики пролежнів

e.g. She gave him an air-ring.

bedpan ['bedpæn] підкладне судно

e.g. The bedpan is under the bed.

compress ['kɔmpres] компрес

dressing ['dresiŋ] пов'язка

bandage ['bændidʒ] бинт; бинтувати

e.g. The nurse puts on a dressing with bandages and applies warm compresses on the bruised places.

cups [kʌps] банки

e.g. His mother applied cups on his chest.

dropping bottle/medicine bottle – пляшечка з кришкою-дозатором

enema ['enimə] клізма

e.g. The patient needs a cleansing (очисну) enema.

feeding cup – напувальник

e.g. Give the patient some tea using a feeding cup.

hot-water bag (bottle) – грілка

ice bag – міхур з льодом

e.g. Put an ice bag on the head and a hot-water bottle on the feet.

wheelchair [ˈwi:lˌʧeə] крісло на колесах (для хворих); крісло-каталка
pipette – піпетка
e.g. You can put these drops into your eyes with a pipette.
mustard plaster [ˈmɑ:stədˈplɑ:stə] гірчичник
sticking plaster – лейкопластир
soap – мило; милити
e.g. You must soap your hands with the green soap.
syringe [ˈsirinʤ] шприц
e.g. Give me a single-use syringe, please.
scissors [ˈsi:zəz] ножиці
e.g. Cut the bandage with scissors.
thermometer [θəˈmɔmitə] термометр
basin [ˈbeisn] таз, миска
sponge [spʌnʤ] губка
stretcher [ˈstreʧə] ноші

Exercise 3. Learn the following word combinations.
bed patient – лежачий хворий
to give smth to smb – дати щось комусь
to take smth away from smb – забрати щось у когось
to apply a cold (warm, hot) compress on – покласти холодний (теплий, гарячий) компрес на
to put drops (in) – крапати краплі
to give a warm (cleansing, medicinal) enema – зробити теплу (очисну, лікувальну) клізму
to fill an ice bag with ice – наповнити міхур льодом
to change ice in the ice bag – замінити лід у міхурі
to take a patient in a wheelchair to the ward – відвезти хворого у кріслі-каталці в палату
a bar of soap – брусок мила
to put (read, shake) a thermometer – поставити (подивитись показники, збити) термометр
to take a thermometer out – забрати термометр
to bring a basin for washing – принести миску для вмивання
to wash with a sponge – обмити губкою
to be on a stretcher – бути на ношах
to carry a patient on a stretcher – нести хворого на ношах

Exercise 4. Choose the correct sentence.
1. The nurse gives injections.
   The nurse makes injections.
   The nurse does injections.
2. I apply cups and mustard plasters on the back.
   I give cups and mustard plasters on the back.
   I take cups and mustard plasters on the back
3. They carry a patient on a wheeled bed.
   They bring a patient on a wheeled bed.
   They take a patient on a wheeled bed.
4. She puts a thermometer and reads it.
   She takes a thermometer out and reads it.
   She shakes a thermometer and reads it.

Exercise 5. Make up correct sentences using the table.

You	apply	the patient 10 drops.
I	applies	the patient on a stretcher.
The nurse	give	cups and mustard plasters.
The doctor	gives	him in a wheelchair.
The patient	take	an injection with a syringe.
	takes	an ice bag with ice.
	drops	her a medicinal enema.
	fills	a bandage with scissors.
	cuts	the thermometer.
	shakes	his face and hands.
	carry	water in a hot-water bag.
	change	a thermometer out.
	washes	a cold compress on the bruise.
	make	on a stretcher.
	is	a single syringe.

Exercise 6. Read and act out the dialogs.

N.: Good morning!
P.: Good morning!
N.: It's time to take your temperature. Put the thermometer under your armpit.
P.: Left or right?
N.: It doesn't matter. (*In 3 minutes.*) Give me your thermometer, please. I want to read it.
P.: What's the temperature today?
N.: It's normal. Thirty-six point six. That' all right.
P.: Thank you.
N.: Please, let me take the hot-water bag.
P.: Don't change water in it, please.
N.: But the doctor said that water had to be cold all the time.
P.: But my liver hurts me very much.
N.: I'll put an ice bag on your right side, the ice will relieve the pain.
P.: Thank you.

Exercise 7. Complete the text. Translate the endings of the sentences into English. Retell the text.

The work of a nurse в лікарні дуже важка. The nurse must виконувати всі вказівки лікаря. She must доглядати хворих удень і вночі. In the morning the nurse міряє температуру пацієнтам, дає необхідні ліки, робить ін'єкції. She takes special care of лежачих хворих. She helps to wash їхнє обличчя і руки губкою. She changes their простирадла і shakes the pillows. When doctors come, the nurse розповідає їм про стан пацієнтів. She helps the doctors to оглядати пацієнтів і записує нові призначення лікаря. During all day the nurse is busy, she змінює пов'язки, робить ін'єкції, закапує очі (вуха) пацієнтів піпеткою, робить бинтові пов'язки, ставить банки, компреси і гірчичники, робить клізми, ставить міхури з льодом і

грілки, приносить і забирає судна у лежачих хворих, допомагає годувати лежачих хворих напувальником.

In the evening the nurse знову міряє температуру пацієнтів і записує її в їх температурні листи, виконує всі вказівки лікарів.

At work the nurse watches over her patients' health with great attention. She is responsible for їх життя.

Exercise 8. Answer the questions.

1. What are the means of nursing?
2. What things for nursing do you know?
3. What are the necessary nursing things for bed patients?
4. What things for dressings can you name?
5. How do nurses transport bed patients?

Exercise 9. Communicative situations.

1. You are a ward nurse. What are your duties in the morning?
2. Name all the things for nursing. Explain what they are used for.

II. Grammar Exercises

Exercise 1. Translate the sentences. Correct the tense of the verbs.

1. This week we have had one lecture in biology. 2. First-year students spent much time at the institute reading halls and library. 3. He didn't enter the institute as he hadn't passed an examination in biology. 4. Most senior students belong to the students' scientific society. 5. We have often prepared our homework in English together.

Exercise 2. Give short answers.

1. Have you ever been to Great Britain? 2. Has your friend ever visited London? 3. Will he have finished the experiment by the planned time? 4. Have you had practice in botany this summer? 5. Has your group performed the task of gathering medicinal herbs and plants? 6. Did he graduate from the institute last year? 7. Do you take an active part in the amateur performances of your medical college?

Exercise 3. Translate the sentences into English.

1. Коли ми зайшли в палату, лікар вже оглядав його. 2. Я вступив до медичного коледжу, коли мені було 15 років. До того я жив у селі з батьками. 3. Щойно лікар призначив ліки, медсестра зробила ін'єкцію. 4. Мій товариш був дуже блідий, коли я його зустрів. Я зрозумів, що він захворів. 5. Медсестра прочитала всі вказівки лікаря перед тим, як іти до хворих у палату. 6. Я не знав, що вона захворіла. Я думав, що вона поїхала у відпустку.

Exercise 4. What part of speech do these words belong to? Pay attention to their affixes.

incidental	reaction	post-reactive
patience	postoperative	darkness
importance	extraordinary	reform
illness	preposition	pretreatment
meaningless	truthfulness	weakness
kindness	idealist	readiness

Exercise 5. Translate the sentences with the object clause.

1. Він каже, що брат зустріне її о 5-ій.
2. Вони знають, що вона хоче стати хорошою медсестрою.
3. Лікар впевнений, що медсестра виконає всі його інструкції.
4. Ми хочемо, щоб вони поїхали до США.
5. Ти не знаєш, що він може ще зробити.

Exercise 6. Translate the sentences into Ukrainian. Remember that the following nouns with prepositions are translated as follows.

in question – який вивчається; який обговорюється; який викликає сумнів; спірний
under study – який вивчається
under discussion – який обговорюється

1. The students know the problem is under study.
2. I'm sure the duties of the nurse are in question.
3. He doesn't remember the work is under discussion.

III. Independent Work: Medicine

Exercise 1. Read the text and translate it.

Medicine

Medicine is the science and art of healing. Medicine is a science because it is based on knowledge gained through careful study and experimentation. It is an art because it depends on how skillfully doctors and nurses and other medical workers apply the knowledge when dealing with patients.

The goals of medicine are to save lives and to relieve suffering. For this reason, medicine has long been one of the most respected professions. Many thousands of men and women who work in medical professions spend their lives caring for the sick.

Today doctors head medical teams made up of nurses, laboratory workers, and many other skilled professionals. The care provided by such teams cannot generally be started at home. As a result health centers, clinics, and hospitals have become the chief centers for medical care in most countries.

Medical care consists of three main elements: the first is the diagnosis or identification of disease or injury; the second is the treatment of disease or injury; the third is the promotion of health and prevention of disease.

Medical care is provided by a variety of specially trained people. Doctors take charge of treating the sick. Nurses help doctors to care for patients. Other trained workers also help to provide health care.

People usually recover from minor illnesses and injuries without special treatment. In these cases, doctors may simply reassure their patients and allow the body to heal itself. But serious diseases generally require special treatment. In these cases, a doctor may prescribe drugs, surgery or other treatment.

Notes:

healing ['hi:liŋ] зцілення
gain [gein] здобувати
art – мистецтво
skilfully – майстерно, вміло
apply [ə'plai] прикладати; застосовувати; вживати
respected – почесний
be started – починатися
chief [ʧi:f] головний
provide [prə'vaid] забезпечувати; вживати заходів
promotion [prə'məuʃn] сприяння, стимулювання
prevention [pri'venʃn] попередження, запобігання
reassure [ˌri:ə'ʃuə] переконувати
drugs [drʌgz] ліки
surgery ['sɜ:ʤeri] хірургічне втручання

Exercise 2. Look at the text and make a plan of it.

Exercise 3. What are the main duties of a nurse in:
- treatment and care of patients;
- preventing diseases;
- promotion of healthy life?

LESSON TWENTY-THREE

I	**Speaking**	When I'm Ill
II	**Grammar**	1. Підрядні обставинні речення (§68). 2. Підсилювальна конструкція ***It is ... that (who)*** (§69). 3. Сполучники часу, місця, способу дії, мети, причини, умови
III	**Independent Work**	Your Health

I. Speaking: When I'm Ill

Exercise 1. Phonetic reading. Read and translate paying attention to prepositions.

To be on duty; to write out a prescription; to listen to the patient's heart and lungs; to make an appointment with a doctor for certain time; to wait for a nurse (dinner); to keep a

thermometer in my armpit; to go out to a call; to complain of pain; to strip to the waist; to lie down on a couch; to sit down on a chair; to fill in a patient's card; to suffer from; to take care of smb/smth; to go in for sports; to be out in the open air; to stay in bed; a complication after a disease; to put a hot-water bag under your feet; to keep the fever down; to be ill with influenza; in no time; to go on with smth.

Exercise 2. Read and learn the following words.

ill, sick – хворий
e.g. I am badly ill.
examine [ig'zæmin] оглядати
e.g. I'll examine you.
strip – роздягатися
e.g. The doctor asked the patient to strip to the waist.
cure [kjʊə] лікувати
e.g. If you are sick, the doctor will cure you.
prescription – рецепт
instruction – порада, призначення
prescribe – приписувати
polyclinic – поліклініка
check-up – перевірка
couch [kaʊʧ] кушетка
hurt [hɜ:t] завдавати болю
complain [kəm'plein] скаржитись
e.g. What are you complaining of?

Exercise 3. Learn the following word combinations.

to fall ill – захворіти
to be ill – хворіти
blood examination – аналіз крові
patient's life history – анамнез життя хворого
to follow instructions – дотримуватись рекомендацій
to consult a doctor – звертатися до лікаря
reception office – реєстратура
sick leave – відпустка через хворобу
to admit to a hospital – покласти в лікарню
to suffer from pneumonia – хворіти на запалення легенів

Exercise 4. Match the equivalents.

доглядати за	observe the condition
робити ін'єкції	be attentive
ставити банки	give medicine
ставити клізму	take care
мити руки	not to be rude
провітрювати палату	make injections
тримати в теплі	apply cups
давати ліки	give enemas
слідкувати за станом	wash hands
бути уважним	keep warm
не грубити	air the room

Exercise 5. Memorize the plan of questioning a patient.

At the Polyclinic

1. Introduction (вступ)
2. Passport Data (паспортні дані)

3. Complaints (скарги)
4. Present History (анамнез захворювання)
5. Past History (анамнез життя)
6. Physical Examination (фізичні обстеження)
7. Prescriptions and Instructions (призначення і поради)

Exercise 6. Translate the dialog into English. Is the dialog built according to the plan given above?

Ганна: Доброго ранку, лікарю!
Лікар: Доброго ранку. Ваше прізвище?
Ганна: Стельмах.
Лікар: Ось Ваша картка. Що з Вами?
Ганна: Мене морозить і, гадаю, в мене температура. Я погано спала цієї ночі, але вранці поїхала до коледжу. Після двох лекцій я змушена була піти – почувала себе дуже погано.
Лікар: Давайте я огляну Вас, але спочатку зміряйте температуру... Температура висока. Відкрийте рот і скажіть "А-а".
Ганна: А-а-а.
Лікар: Гортань трохи запалена. Зніміть кофтину, я хочу Вас послухати. Вдихніть. Видихніть. Покашляйте. Скільки днів Ви кашляєте?
Ганна: Другий день.
Лікар: У Вас типова (common) застуда. Треба полежати кілька днів у ліжку та попити ліки. Ось рецепт.
Ганна: Скільки разів на день?
Лікар: Три рази після їжі. Також пийте гарячий чай з молоком.
Ганна: Як ви гадаєте, скільки часу мені доведеться пролежати у ліжку?
Лікар: Днів три-чотири. Я впевнений, що до кінця тижня Ви почуватимете себе добре.
Ганна: Дякую, лікарю.
Лікар: До побачення.

Exercise 7. Complete the following dialog.

Doctor: Good morning, Mr. Thompson. What's the trouble?
Mr Thompson: ...
Doctor: Any pain?
Mr Thompson: ...
Doctor: Please, strip to the waist and lie down on the examination couch. I'll examine you.
Mr Thompson: ...
Doctor: Certainly, for a week or ten days. There's a prescription. Take a spoonful of this medicine three times a day.
Mr Thompson: ...
Doctor: Oh, don't mention it. Please, follow my instructions. Good-bye.

Exercise 8. Make up your own dialog "A Doctor and a Patient" with your friend. (Use the plan from Exercise 5.)

Exercise 9. Learn the poem by heart.

The Doctor

When I am ill, I go to bed
And on the pillow lay my head.
The doctor comes and says, "Dear me!
Whatever can the matter be?"
He feels my pulse and sees my tongue,
He tests my heart and then each lung;
He asks how old I am and then
He takes his paper and his pen,
And makes a note of things that taste
So horrid, that I'm sure it's waste
To take them. But he says: "Each noon
Take this, and you'll be better soon."

Notes:
Dear me! – Господи! (висловлення здивування)
Whatever can the matter be? – Що трапилось?
makes a note of things – (тут) виписує ліки
horrid – страшний
I'm sure it's waste – я впевнений, що це марно (даремно)

II. Grammar Exercises

Exercise 1. Translate the following one-root words and name what parts of speech they belong to.
- pain, painful, painless
- depend, dependant, dependence
- effect, effective, efectiveness, effectively
- order, disorder
- cover, recover, recovery
- differ, difference, different, differentiate
- action, act, activity, reaction

Exercise 2. Translate the sentences, pay attention to the construction *It is ... that.*
1. It is that student who helped you to do it.
2. It is this thing that you need so much.
3. It is this text which tells us about the surgery.
4. It is from the plant that aspinin got its name (spirea plant).

5. It is the date when he was born.
6. It's the room where operations are performed.

Exercise 3. Learn the conjunctions of adverbial clauses.

where – де, куди	whatever – що б не
while – у той час як	whichever – який би не
as soon as – як тільки	when – коли
after – після того, як	as – коли; оскільки
till – до тих пір, поки	before – перед тим, до того
in order that – для того, щоб	until – до тих пір, поки не
as long as – поки; до тих пір, поки	since – з тих пір
for – оскільки; інакше	though – хоч
because – тому що	although – хоч; однак
once – з тих пір, як	in case – у разі
that – що	unless – якщо не
as if – ніби	on condition – за умови, що
from where – звідки	wherever – куди б не; де б не
in spite of (despite) – не дивлячись на	however, no matter – як би не
whoever – хто б не	whenever – коли б не

Exercise 4. Translate the sentences with adverbial clauses.

1. The research could be carried at the hospital where many patients were treated. 2. In order to make some tests he has to know the methods well. 3. Normal function may sometimes be restored when it is disordered. 4. Because of the use of computers new information is obtained. 5. This new book is the bestseller since the beginning of the year. 6. The article is to be recommended to medical students as it deals with medicine. 7. The picture is a good example of the subject as it has a large number of figures. 8. She is waiting for him, because he must give her a dictionary.

III. Independent Work: Health

Exercise 1. Read the interviews with teenagers.

Health

Are you the healthy-eating, clean-living, sporty type? Or are you destroying yourself with cigarettes, alcohol and junk food?

Do you carry on with life through headaches, colds or flu?

Or are you a hypochondriac who goes straight to the doctor if you're feeling a bit tired?

Whatever your type, we all love hearing about other people's illnesses and accidents.

Here are interviews with four London students about their health and their attitudes to it.

Kate Nolan, 15:

I don't smoke, and I never will; I'm sure of that. I'm not paranoid about drink; I have a glass of wine now and then, but I'm not very keen on it. I've never been actually drunk. I get bad headaches sometimes if I'm very tired or stressed. Then I take paracetamol and have a rest, and that normally does the trick.

Rita Leung, 19:

I started smoking but I managed to give up after about one year. It's all a matter of will power. You can do absolutely anything if you want to. That's what I believe. I can't understand drug addicts; they are wasting their lives, and they could stop so easily if they really wanted to. It's the same thing with diet. If you know certain foods are bad for you, or make you fat, just don't eat them.

Traditional Chinese medicine can help with psychological things as well as physical problems. Some people have stopped smoking after being treated with acupuncture.

Ciaran Mitchell, 18:

I smoke about twenty cigarettes a day. I know it's bad for me but I tried to give up a couple of times and it just failed miserably. I find that I don't really have the will power.

I play football, American football and volleyball. I find I have more energy since I've been playing. But it's not always good for your health – at the moment I've got two cracked ribs from playing American football!

I broke all the bones in my left arm. I had three operations and a year of physiotherapy. My arm will never be the same again. But I'm right-handed, so it doesn't really have an effect on studies and things like that.

AIDS scares me a lot. I've known two people who have died of it. They thought they'd be OK. They didn't realize the risk, and they just ended up dying. It's really quite emotional time, realizing someone is going to die, just because they weren't careful.

Maryssa Daye, 17:

I get colds quite often. Mainly, I just carry on as normal with a cold. But if it gets too bad, I go to the doctor and see what he gives me – cough medicine and antibiotics, mainly.

I was bitten by a dog once. I was at my ex-boyfriend's house, and we went out to the park. I was on the swings, and the dog doesn't like swings. So it decided to take a chunk out of my leg! I didn't go to the hospital. I went to the doctor, and he gave me an injection. It wasn't too bad, but I won't forget it!

I don't smoke, but I do drink – occasionally. The main health problem I worry about is AIDS.

Notes:

junk food [ʤʌŋk] калорійна, нездорова їжа (у закусочних, із автоматів тощо)
hypochondriac [ˌhaipəʊˈkɒndriæk] іпохондрик
now and then – час від часу
be keen on smth – захоплюватися чим-небудь
do the trick [trik] досягати мети; (тут) допомогає
drug addict [ˈædikt] наркоман
acupuncture [ˈækjuːˌpʌnkʧə] голкотерапія
couple of times [ˈkʌpl] кілька разів
fail [feil] зазнати невдачі
miserably [ˈmizərəbli] абсолютно
cracked [krækt] тріснутий; надтріснутий
rib [rib] ребро
AIDS – СНІД
swings [swiŋz] гойдалка
chunk [ʧʌŋk] шматок

Exercise 2. What do the young people tell about their health?

Exercise 3. What bad habits and what terrible diseases do they speak about?

Exercise 4. Tell about your and your friends' bad habits and what you do to get rid of them.

LESSON TWENTY-FOUR

I	**Speaking**	A Visit to a Doctor
II	**Grammar**	1. Узгодження часів (§70). 2. Дієслова ***to tell, to say, to speak, to talk*** (§71)
	Suffixes	(adj.) -ive
III	**Independent Work**	Cold War

I. Speaking: A Visit to a Doctor

Exercise 1. Phonetic reading. Read the words and memorize their pronunciation.

During ['djʊ(ə)riŋ], to live [liv], because [bi'kɒz], pioneer [ˌpaiə'niə], to arouse [ə'raʊz], since [sins], growth [grəʊθ], heart [hɑ:t], publicity [pʌ'blisiti], although [ɔ:l'ðəʊ], to know [nəʊ], child [ʧaild], eight children [eit'ʧildren].

Exercise 2. Read the new words and translate the word combinations with them. Memorize these words.

Registry ['reʤistri] реєстратура: at the registry; to work at the registry, to come to the registry, a registering clerk [klɑ:k], to work as a registering clerk;

appointment [ə'pɔintmənt] призначення, домовленість про зустріч: to take an appointment with a doctor, to make an appointment with a fellow student at the canteen, to make an appointment for some time;

therapeutist [ˌθerə'pju:tist] терапевт: an experienced therapeutist, to work as a therapeutist, the therapeutist listens to the patient's heart and lungs, the therapeutist examines me thoroughly;

diagnosis [ˌdaiəg'nəʊsis] діагноз: diagnoses, to make a diagnosis, to make a correct diagnosis, the therapeutist made a diagnosis of influenza;

to prescribe [pris'kraib] призначати: to prescribe a treatment, to prescribe some medicine;

trouble ['trʌbl] хвороба; турбота; клопіт: a serious trouble, to trouble, to complain of some troubles, a heart trouble, a liver trouble, a stomach trouble;

headache ['hedeik] головний біль: to have a headache, to have a bad headache, to complain of headache, to suffer from a bad headache, a splitting headache;

throat [θrəʊt] горло: a sore throat, to have a sore throat, to suffer from a sore throat;

waist [weist] талія: to strip to the waist, the doctor asked the patient to strip to the waist;

pulse [pʌls] пульс: to feel somebody's pulse, his pulse is normal, her pulse was abnormal;

rubdown ['rʌbdaʊn] обтирання: to have a rubdown, to have a cold rubdown, everybody must have a cold rubdown in the morning, cold rubdowns are useful;

to catch [kæʧ] (caught [kɔ:t]) ловити, схопити: to catch a cold, to catch a bad cold, he caught a bad cold, she caught a bad cold;

cough [kɒf] кашель: to cough, to be coughing, I am coughing, to have a bad cough;

sneeze [sni:z] чхати: to be sneezing, he is sneezing, why are you sneezing?;

to cause [kɔ:z] спричиняти: to cause pain, to cause a complication, to cause a serious complication, what caused these complications?;

scalding ['skɔ:ldiŋ] гарячий: a scalding foot bath, to have a scalding foot bath, to prescribe a scalding foot bath, I was prescribed a scalding foot bath;

fever ['fi:və] лихоманка: a bad fever, to keep the fever down, to have a bad fever, to be running high temperature;

to reveal [ri'vi:l] показувати; відкривати: to be revealed, medical examination reveals, the X-ray examination revealed lung throubles;

a running nose – нежить: a cold in the head, a bad cold in the head;

complaint [kɒm'pleint] скарга: What are you complaining of? What do you complain of? What troubles you? What's wrong? Have you had any pain? Where?

Exercise 3. Make up sentences with the following word combinations.

splitting headache – сильний головний біль
clogged nose – закладений ніс
be running high temperature – мати високу температуру
write out some slips – виписати направлення
first aid station – станція швидкої допомоги
make the daily round – робити щоденний обхід
take a scalding foot bath – парити ноги
keep one's fever down – збити температуру
nip the disease in the bud – вбити хворобу у зародку
recover from an illness – одужати від хвороби

Exercise 4. Read the text and translate it,

At the Doctor's

If we catch cold, we feel a splitting headache, have a clogged nose, cough, run a high temperature, we must go to the polyclinic. First we come to the registry. The registering clerk on duty asks the name, address, age and occupation. He writes out some slips because several specialists will examine us. Some of them will listen to our heart and lungs, some will check up our kidneys, liver, stomach, eyesight, hearing. The others will conduct our blood analysis, take our blood pressure and X-ray us.

Our district doctor sees his patients in the consulting room No. 4. A nurse gives us a thermometer to take our temperature. We must keep it under an armpit. Last time my temperature was 37.9°C. The doctor asked what my trouble was. He offered to sit down in a chair and to strip to the waist. He felt my pulse. It was faint and accelerated. Then I lay on the examination couch, and the doctor palpated my abdomen. He asked me from what diseases I suffered in my childhood. I suffered from scarlet fever (measles, chicken pox). At that moment I felt dizzy and was damp with sweat. The doctor filled in my card and diagnosed the case as the flu.

Then he wrote out a prescription for some medicine: pills, powder, drops, mixture. He also advised me to take a scalding foot bath, to put a hot water bottle on my feet, to have a hot tea with raspberry jam. That would keep my fever down. The results of my X-ray examination

and blood analysis were normal. I had the prescription made at the chemist's. I followed the prescribed treatment to avoid complications. Every day I took a tablespoonful of mixture 3 times a day and some pills. In two days I was better and in a week I recovered from my illness. I began to take a good care of myself. Now I go in for sports because sports make us strong, healthy and cheerful. Every day I do my morning exercises and have a cold rubdown to prevent myself from catching cold. There is a good proverb: an apple a day keeps the doctor away. That's why I eat a lot of fruit and vegetables.

In cause of a sudden and severe illness or an accident calls are made to the first aid station. There doctors are on duty all day round. There are many ambulances there equipped with everything necessary to render first aid. They have all kinds of medicine, stretchers, radio equipment. A patient is transported to the hospital without delay. There he is taken to the reception ward first. After careful questioning and examination the doctor fills in the patient's case history. Then a patient is given special clothes and is put to a ward for treatment. The doctors make their daily round there. They examine patients and prescribe different treatments. The nurses take the patients' temperature, give injections, apply cups and mustard plasters, give medicine.

When a patient is completely cured, he is discharged from the hospital. There are different departments in the hospital. They are: surgical department, therapy, the department of infectious diseases, etc.

The problem of health service has become one of the greatest concerns of the government. It's necessary to expose the disease before it has taken root, to nip the disease in the bud. Periodic medical examination at schools, plants, factories helps to do it. If a person is ill, he can take a sick-leave paid at the government's expense. Trade unions provide sanatoriums, health resorts, rest houses, summer camps. The aim of medical service is to achieve lower mortality rate.

Exercise 5. Title each paragraph of the text "At the Doctor's".

Exercise 6. Read the dialog and act it out with your fellow student.

– Good afternoon, doctor!

– Good afternoon. Sit down, please. What's troubling you? Where is the pain?

– I am quite unwell. I feel giddy. My nose is running. I have a splitting headache, a sore throat and a cough.

– What is your temperature?

– I was running a very high temperature yesterday. But today I haven't taken it.

– Take the thermometer, please, and put it under your armpit. What infectious diseases have you suffered from?

– I've had measles, mumps, chicken pox and pneumonia.

– Well, now give me the thermometer... 38.5. It's rather high. Let me feel your pulse... Now strip to the waist, please. I'll listen to your heart and lungs. Please, take a deep breath. Breathe deeply... Now hold your breath... Now cough... That will do. Do you feel a little pain in your heart?

– A little bit.

– You have cardiac murmur. Do you do morning exercises?

– No, I don't.

– Well, you should, and have a cold rubdown every morning. That will keep you from catching colds. Then eat lots of fruit. Drink hot tea with lemon or raspberry jam. I also advise you to put a hot water bottle under your feet and try a scalding foot bath. Apply cups and mustard plasters on your back. Here is a prescription for medicine. You'll have it made at the chemist's.

– Thank you ever so much, doctor. Good-bye.

Exercise 7. Learn the plan of patient examination (from Lesson 23).

Exercise 8. Make up a dialog "At the Doctor's" with your friend. You are a doctor and he is a patient. Mind the plan. Use the following phrases.

Introduction

1. Come in, please. (You may. Yes, yes.)
2. Good morning (afternoon, evening)!
3. Do you speak English? (Can you speak English?)
4. Do sit down. (Sit down, please.)
5. Next, please! (Next!)
6. Will you wait a minute, please?
7. Don't open the door, please.

Passport Data

1. What's your full name? (What's your surname?)
2. How old are you? (Your age?)
3. Will you tell me your address? (Where do you live? In what street do you live?)
4. Would you tell me about your occupation? (What is your occupation? Where do you work? Your profession?)
5. Are you married or single (divorced, widowed)? (Do you have a wife/husband? Do you have a family? How many children do you have (have you got)?)
6. What's your education? (Your education, please. Did you go to school?)

Complaints

What are you complaining of? (What do you complain of? Your complaints, please? What troubles you? What exactly is the trouble? What's wrong? Have you had any pain? Where?)

Present History

1. Where do you feel the pain? (Is it painful here? That painful? Show me the exact point, please.)
2. Have you been ill for a long time? How long? (How long have you felt pains here? How many days? A month? A week?)
3. What kind of pain? (Is your pain (cough, etc.) constant, severe, mild, etc.? With or without intervals?)
4. Does the pain occur before or after eating? (When does the pain begin? When do you feel the pain?)
5. Where does the pain radiate to? (Does the pain radiate? Where to? Where else do you feel pains?)
6. When did you fall ill? (When did you first feel bad (unwell, dizzy, etc.)?)

7. How did the disease develop? (When did you begin to feel worse?)

8. What makes you feel better? (In what position do you feel better? What helps you? Show me, please.)

9. Tell me, please, did you take any drug (medicine)? (Did you take any pills?)

10. What drug (medicine) did you take? (What were they? Give me the name of the drug.)

11. Did it relieve your symptoms? (Did you feel better after tablets? Did the drug help you? What drug (medicine) helps you?)

12. Have you ever been injured? (Were you injured? Were you operated on? Have you had any injures? Are you after any operation? After an operation?)

13. Did you consult any doctor?

14. What was his diagnosis? (What did he say?)

Past History

1. Were you in good health before? (Have you had any illness before?)

2. How did you develop as a child? (Were you a normal child? Did you have rickets?)

3. Are you the eldest in your family? What diseases did you have in your childhood (when you were a child)? Did you have scarlet fever (mumps, etc.)?

4. Did you suffer from any grave disease? (Have you ever had tuberculosis or syphilis (infectious diseases, heart attacks, fits, fainting, spells, etc.)?)

5. And any of your relatives?

6. When did it happen? (When was it?)

7. Would you tell me about any complications you had? (Did you have any complications after your illness?)

8. Did you undergo any operations (Were you operated on?)

9. What living conditions do you have? (Do you live in a good house?)

10. You don't smoke, do you? (Are you a heavy smoker? Do you smoke?)

11. Do you have a good appetite? (Is your appetite good?)

12. What about alcohol? (Do you drink any whisky, beer, etc.?)

13. Do you suffer from cough? (Do you cough?)

Physical Examination

1. Open your mouth, will you? (Open your mouth, please. Open your mouth).

2. Put out your tongue. (Stick out your tongue. Show me your tongue. Just your tongue.)

3. Your tongue is rather coated. (Your tongue is not clean.)

4. Say "Aah", please. (Say after me: "Aah". "Aah", please.)

5. Turn your head, will you? (With your head to the window. Look at the door (window).)

6. Try to swallow. (Swallow, please. Do like that, please.)

7. Follow my finger with your eyes. (Look at my finger. Don't move your head but follow my finger to the right. Now to the left ... up ... down.)

8. Do you have good eyesight (hearing)? (Do you have good eyes (good ear)?)

9. Come here if you can. (Here, please.)

10. Try to relax, please. (Be quiet.)

11. Let me feel your pulse. (Put your hand on the table, please.)

12. Will you stand still? (Stand still, please.)

13. Don't move your shoulders. (Don't move.)

14. I am going to examine you. (I'll examine you.)

15. Strip to the waist, please. (Take your clothes off. Undress.)
16. Unfasten your outer garments, please. (Just remove your shirt, will you? Your shirt!)
17. Would you breathe deeply? (Breathe deeper. Breathe.)
18. Try to take a deep breath, please. (Again. Breathe in.)
19. Breathe out, please. (Breathe out.)

II. Grammar Exercises

Exercise 1. Define the parts of speech of the following words, translate them.

intense – intensification – intensive
able – ability – probability
effect – effective – effectively
produce – productive – production
add – addition – additionally
village – villager
collect – collection – collective

Exercise 2. Translate the sentences. Mind the sequence of tenses.

1. It was clear that he finished high school.
2. Doctors recognized that this virus produced lung illness.
3. It was necessary to say that he was an excellent specialist.
4. The nurse wanted to know if the patient was better.
5. Generally mothers determine whether the child is sick or not.

Exercise 3. Complete the sentences according to the model. Translate them.
Model:

He knew that	*he worked at school (працює).* *he had worked at school (працював).* *he would work at school (працюватиме).*

1. She said that …
2. They asked me if …
3. We asked him when …
4. We were sure that …
5. My sister answered that …

Exercise 4. Complete the sentences translating parts of the sentences into English.

1. Пацієнт каже лікарю, that he has a sore throat.
2. Дівчина відповіла медсестрі, that she had a bad cold.
3. I tell you, що я перестав палити.
4. The doctor asked, чи пацієнт відчуває біль у шлунку.
5. He asks the boy, коли він консультувався у лікаря останній раз.

Exercise 5. Learn the difference between the meaning of the following verbs.
to say (said, said) *– казати, говорити, повідомляти, заявляти*
That goes without saying. – Це очевидно.

Say it again! – Повтори! Скажи знову!

***to speak (spoke, spoken)** – говорити, виголошувати промову*

speak English – говорити англійською

Speak loudly, please. – Говори голосно, будь ласка.

***to talk** – говорити, розмовляти, бесідувати, обговорювати, радитись, пліткувати*

to talk against time – говорити, щоб виграти час; намагатися вкластися в установлений час

I'd like to talk to him. – Я хотіла б поговорити з ним.

***to tell (told, told)** – говорити, сказати, висловитись, наказувати, рахувати, пояснювати*

Never tell me. – Не розказуйте казок.

Tell the nurse about it. – Скажіть медсестрі про це.

Exercise 6. Fill in the blanks with the verbs *to speak, to say, to tell, to talk* in the correct form.

1. Alice would like to know what they … about the party.
2. Professor Sobko … at the meeting last Friday and … us a lot about the USA.
3. I made a mistake in the last sentence and the teacher asked me to … it again.
4. He has already … to you about him.
5. What did she … about the disease?
6. Every time I see my friend Nick we … about our school times.
7. Our students always … that Lina can … English very well.
8. The nurse … that the patient who you'd like to … to discharged from the hospital yesterday.

III. Independent Work: Cold War

Exercise 1. Read the text and tell how to prevent colds.

Cold War

Your body aches. You can't breathe. Your head feels as if it might explode. There's no denying it: you've got a cold.

Winter is prime time for catching colds.

Getting over a cold takes about a week. Luckily, there are steps you can take to keep from getting sick.

Invasion of Viruses

So how do you catch a cold? Believe it or not, says Dr. Joel Steinberg, a pediatrician, it's not caused by being cold, having wet feet or going outside with a wet head.

Colds are caused by viruses, tiny germs too small to be seen by microscopes.

Sneezing is one way cold viruses are spread. Air blasts out of our nose at about 100 miles an hour, producing thousands of airborne drops that land everywhere.

If your hands touch anything those virus-infected drops land on, even doorknobs and pencils, watch out! Your hands can then ship those germs into your body through your mouth, nose or eyes.

Prepare for Battle

It's easy to catch germs. But there are some things you can do to protect yourself – and other people.

Wash your hands frequently with soap and warm water to get rid of any germs you may pick up.

Don't share drink glasses, even if your friend doesn't look sick. Cold symptoms sometimes take days to show up.

Use a tissue when you sneeze, and be sure to throw it away. If you don't have a tissue, sneeze into your shoulder, not your hand.

Eat lots of fruit and vegetables. This will keep your body strong and able to fight off any invading germs.

Attack!

But sometimes, no matter what you do, you still catch a cold.

Viruses are weird. Medicine won't make them go away; the only thing that will is time.

You can help your body fight the virus by getting plenty of rest. Use your energy to get better.

Another energy booster is drinking lots of water and juice. This prevents your body from becoming dehydrated, which makes you ever more tired.

If the symptoms get worse after three or four days, your illness may be more than cold – see a doctor.

Some folks believe curing a cold means eating lots of food like chicken soup and drinking plenty of orange juice which contains vitamin C. These home remedies have never been scientifically proven to work. But no one ever said they were completely wrong either. Chicken soup soothes a sore throat. Orange juice – like lots of juices – keeps you from getting dehydrated and tired.

Over-the-counter medications from the drugstore make you feel better too. But they don't make the cold go away.

Notes:

explode [iks'pləʊd] вибухнути
there's no denying it [di'naiŋ] немає сумніву
prime time [praim] найбільш зручний час
germ [ʤɜ:m] мікроб, бактерія
blast [blɑ:st] вириватися (про повітря)
airborne ['ɛəbɔ:n] що переноситься повітрям
doorknob ['dɔ:nɒb] (кругла) дверна ручка
ship [ʃip] перевозити, переправляти
share [ʃeə] користуватися разом; ділитися
invade [in'veid] вторгатися, вдиратися
weird [wiəd] незрозумілий
booster ['bu:stə] підсилювач
dehydrate [di:'haidreit] зневоднювати(ся)
remedy ['remidi] ліки
soothe [su:ð] заспокоювати
sore throat ['sɔ:'θrəʊt] запалене (хворе) горло
over-the-counter medications [ˌəʊvəðə'kaʊntə] ліки, що продаються без рецепта
drugstore ['drʌgstɔ:] аптека (амер.)
tissue ['tisju:] паперова носова хусточка

Exercise 2. Put this conversation in the correct order; read the dialog.

Patient: Yesterday I fell while I was playing football.

Patient: Should I go today?

Doctor: Goodbye.

Doctor: Hmm. I think you've only sprained it. But you'll need an X-ray. I'll put a bandage on it for now. But you should go to hospital for an X-ray.

Patient: Yes, but it hurts.
Patient: I've hurt my ankle.
Patient: Thank you, Doctor. Good-bye.
Doctor: Can you just take your shoe off? Hmm, yes. Can you move your foot?
Doctor: Yes. Take this letter with you.
Doctor: When did it happen?
Doctor: Hello. What's the problem?

LESSON TWENTY-FIVE

I	**Speaking**	Illness
II	**Grammar**	1. Розділові питання (§71). 2. Висловлення прохання чи наказу першій чи третій особі (§72). 3. Складні прийменники
III	**Independent Work**	Why Are British Sailors Called "Limeys"

I. Speaking: Illness

Exercise 1. Phonetic reading. Read the words and word combinations. Mind pronunciation.

Registry, registering clerk, occupation, to write out, slip, to examine a patient, medical examination, therapeutist, thoroughly, eyesight, to perform smb's blood analysis, to take smb's blood pressure, to X-ray, to make an appointment with smb for some time, to see a patient, consulting room, waiting room, to take smb's temperature, to keep a thermometer under one's armpit, to make a diagnosis, to prescribe, proper, to follow treatment, reception hours, call, headache, to have a sore throat, to strip to the waist, to feel smb's pulse, to offer, to palpate, patient's card, disease, to suffer, healthy, to have a cold rubdown, to be out in the open air, to catch a (bad) cold, to stay in bed, to cough, to sneeze, to have a headache, to be running a (high) temperature, to cause, complication, medicine, scalding foot bath, to put a hot water bottle on smth, to keep fever down, to be ill with smth, to reveal.

Exercise 2. Read the topical word combinations and learn them by heart.

air [ɛə] повітря; провітрювати
clear (fresh) air – чисте (свіже) повітря
to be out in the open air – знаходитись на свіжому повітрі
to air the ward – провітрити палату
care [kɛə] турбота, піклування
to take care of – доглядати за, піклуватися про, дивитись за
under nurse's care – під наглядом медсестри
cause [kɔ:z] викликати, спричиняти
to cause pain (trouble, suffering) – викликати біль (занепокоєння); спричинити страждання

to cause a disease (a high temperature, complications) – спричинити хворобу, викликати високу температуру, ускладнення
check up [ʧek] перевіряти, контролювати
to check a pulse – перевірити пульс
to check smb's kidneys (lungs, heart) – перевірити функцію нирок (легенів, серця)
complications [ˌkɒmpli'keiʃnz] ускладнення
complications after a disease – ускладнення після хвороби
some complications will follow this disease – після цієї хвороби можуть бути деякі ускладнення
to avoid complications – уникати ускладнень
disease [di'zi:z] хвороба, захворювання
a chronic disease – хронічне захворювання (terrible, serious, dangerous – страшне, серйозне, небезпечне)
to treat smb for a disease – лікувати когось від хвороби
to cure smb of a disease – вилікувати когось від хвороби
to fight against a disease – боротися із захворюванням
children's disease – дитяча хвороба
infectious disease – інфекційне захворювання
to carry a disease – переносити (розповсюджувати) хворобу
to catch a disease – заразитися хворобою
examination [ikˌzæmi'neiʃn] огляд, обстеження; дослідження
medical examination – медичне обстеження;
thorough (careful) medical examination – ретельний (уважний) медогляд
general examination – загальне обстеження
X-ray examination – рентгенологічне обстеження
on examination – під час огляду; після розгляду
to arrange (carry on) a medical examination – організовувати (проводити) медогляд
an examination shows (reveals, proves) – огляд показує (підтверджує); як виявив огляд
fill in – заповнювати
to fill in a patient's card – заповнювати картку хворого
to fill in a table – заповнювати таблицю
palpate [pəl'peit] пальпувати, промацувати
to palpate carefully (thoroughly, skillfully) – промацувати уважно (ретельно, вміло)
prescribe [pris'kraib] виписувати, призначати
to prescribe a proper treatment (a medicine) – призначити відповідне лікування (ліки)
suffer ['sʌfə] страждати (від), відчувати
to suffer greatly – дуже страждати
to suffer pain – відчувати біль
to suffer from pain – страждати від болю
to suffer from a disease – страждати від хвороби
write out – виписувати
to write out a slip (a medical certificate, a sick list) – виписувати направлення (медичну довідку, лікарняний)

treatment [`tri:tment] лікування
a proper (new, effective) treatment – належне (нове, ефективне) лікування
to be on home treatment – лікуватися в домашніх умовах
to follow smb's treatment – дотримуватись чийогось лікування

Exercise 3. Make up questions to the words in bold type.

1. There is **an examination couch** in every consulting room. 2. **My sister** always complains of a bad headache. 3. They reported on the **important** findings of their experiments on animals. 4. Besides his reception hours a doctor **goes out to calls** in the afternoon. 5. **I** shall follow the doctor's treatment which he has prescribed me. 6. Yesterday he made an appointment with his district doctor **for 11 a.m.** 7. The doctor must palpate **your abdomen** during medical examination.

Exercise 4. Find synonyms for the words and expressions in bold type.

1. Take this medicine. It will **bring the temperature down**. 2. After proper treatment **I became healthy**. 3. My younger brother has fallen ill with measles. He must **lie in** bed for several days. 4. The nurse **measured the patient's temperature.** 5. My friend **wants very much** to attend postgraduate courses. 6. Doctor Petrov usually **receives** his patients in the consulting room 15. 7. He **arranged to be seen by the doctor at** 12 a.m. 8. Has the X-ray examination revealed any lung **disease**? 9. I'm afraid I have caught a bad cold because **I feel very bad**. 10. The doctor could **say what disease I was ill with.** 11. Scarlet fever may often **bring about** a high temperature. 12. **The hours during which Dr. Smirnov sees his patients** are from 9 a.m. till 12 a.m.

Exercise 5. Substitute the words in bold type for antonyms and make the necessary changes.

1. When the nurse took his temperature, it was **low**. 2. The patient **hasn't recovered** after the prescribed treatment. 3. They pay **little** attention to their health. 4. We **have graduated from** the Institute this year. 5. The doctor made **a wrong** diagnosis. 6. They **miss** classes every day. 7. **Junior** students go out to calls. 8. The patient **took** the thermometer **out of** his armpit. 9. She **feels rotten.** 10. They **stay indoors** every day. 11. **I don't want** to tell you about my work.

Exercise 6. a) Read doctor's questions used at the beginning of a reception.

1. What do you complain of? 2. What else troubles you? 3. What is wrong with you?

b) Ask a patient these questions adding the necessary words.

1. What ... wrong ... you? 2. What ... you complain ... ? 3. What ... troubles ... ?

c) Answer the doctor's questions using the given expressions.

1. What was wrong with you yesterday? *A high temperature.* 2. What else troubles you? *A sore throat.* 3. What do you complain of? *My headache.*

Exercise 7. a) Read additional doctor's questions.

1. Do you have any other complaints? 2. Does your heart (stomach) trouble you? 3. Is your pain severe (weak)? 4. Is it painful to swallow?

b) Translate the doctor's questions.

1. Чи турбує вас шлунок? 2. Чи є інші скарги? 3. Чи дуже боляче? 4. Чи боляче ковтати?

c) Ask your patient these questions. What are his short answers? Use these expressions.

1. Does your stomach … …? Yes, … . 2. Is your pain … ? No, … . 3. Do … have … … complaints? Yes, … . 4. Is … … to swallow? Yes, … .

Exercise 8. a) Read the doctor's questions about the patient's anamnesis.

1. What diseases did you have in childhood? 2. Are your parents living and well? 3. What diseases do your parents suffer from?

b) Translate and ask your patient these questions.

1.Чи здорові ваші батьки? 2. Якими хворобами вони страждають? 3. Чи часто вони хворіли в дитинстві? 4. Які хвороби були у вас в дитинстві?

c) Make up your answers using the correct form of the verb.

1. At present my father (to be) living and well. 2. My mother (to suffer) from her heart disease. 3. In my childhood I often (to be) ill. 4. I (to have) scarlet fever and measles.

Exercise 9. Read the dialog and act it out with your fellow student.

A: Hello, Nick. When did you fall ill?

B: I fell ill two weeks ago.

A: I didn't know anything about your illness till Elen told me about it.

B: Yes, the onset was so sudden.

A: Was it acute?

B: Yes, quite. I couldn't sleep at night, felt feverish and could hardly stand on my legs. I had a splitting headache and a bad cough.

A: Were you running a temperature?

B: Oh, yes. It was very high – 38,9°C (thirty-eight point nine degrees Celsius). I didn't know that it was so high and wanted to go to our district polyclinic, but my mother didn't let me out.

A: Did you call in a doctor?

B: Certainly. He took my temperature once more. It was 39.2°C (thirty-nine point two).

A: Did he diagnose your case?

B: Yes, he did. He examined my lungs, told me to breathe deeply and to cough repeatedly. Then he told my mother I had pneumonia.

A: What did he prescribe?

B: He prescribed some injections, headache pills and some cough mixture, mustard plasters.

A: Did you follow the doctor's instructions?

B: Certainly. The nurse came for injections in due time.

A: And when did you feel better?

B: In ten days I felt much better.

A: Did you go to the polyclinic for check-up?

B: I went to our district doctor's consulting room.

A: So now there is nothing to worry about, I suppose.

Notes:

the onset was sudden – початок був несподіваним
acute [ə'kju:t] гостра (форма)
feverish ['fi:vəriʃ] гарячковий
pneumonia [nju:'məʊniə] запалення легенів
prescription [pris'kripʃ(ə)n] рецепт
to worry ['wʌri] хвилюватися

Exercise 10. Make up your own situations using the following words and word combinations.

1) A lung trouble; to X-ray; to reveal; to complain of; to strip to the waist; to follow treatment; to write out a slip for.

2) To feel rotten; to catch a bad cold; to stay in bed; to keep the thermometer under one's armpit; to be running a high temperature; to have a scalding foot bath; to cough; to sneeze.

3) A consulting room; a district doctor; to check the liver and kidneys; to examine a patient; to make a diagnosis; to prescribe; to listen to the heart and lungs; advice.

4) To take care of oneself; to suffer from; a healthy person; to feel well; to go in for sports; to be out in the open air; to have a cold rubdown.

5) At the registry; to write out a slip; a medical examination; to make an appointment with somebody for some time; a registering clerk.

6) Reception hours; to take smb's blood pressure; to make a diagnosis; to have heart trouble; to feel the pulse; to state; a medical certificate.

7) To be seriously ill with; in my childhood; to stay in bed; measles; to call in a doctor; to be well again; to suffer from many children's diseases.

Exercise 11. Speaking topics.

1. You are a doctor. You are working at the polyclinic. Tell us how you examine your patients.
2. Describe an ordinary working day of a nurse at a polyclinic.
3. Tell us about the diseases you suffered from in your childhood.

II. Grammar Exercises

Exercise 1. Fill in the blanks with the appropriate articles; make disjunctive questions.

1. Ann is in ... garden. 2. He was well-dressed, ... best-dressed man in ... room. 3. How did you like ... film? 4. This is ... house that Jack has built. 5. Thanks ... lot. 6. Copernicus proved that ... Earth goes round ... Sun. 7. ... tiger is a big cat-like animal. 8. He saw a familiar face in ... second row. 9. ... Trafalgar Square is famous for its Nelson's Column.

Exercise 2. Make the following sentences negative.

1. There is a call to No. 15, Pushkin Street. 2. He follows his doctor's treatment. 3. We made an appointment with our district doctor yesterday. 4. X-ray examination reveals lung troubles. 5. That patient will stay in bed for a week. 6.There are many hospitals in this city. 7. I am interested in this patient's blood pressure. 8. This disease gives very serious complications. 9. The patient took this medicine every other day. 10. My younger brother had measles at the age of five. 11. The doctor palpated the patient's abdomen during medical examination.

Exercise 3. Open the brackets, put the personal pronouns in the required form and translate these sentences into Ukrainian.

1. Let (he) write an application for a scholarship. 2. Let (I) listen to your heart and lungs. 3. Let (we) have dinner at our institute canteen after classes. 4. Let (we) discuss the findings

of our experiments. 5. Let (I) take you temperature. 6. Let (he) be X-rayed today. 7. Let (they) be out in the open air as much as possible. 8. Let (she) stay in bed for some days as she is running a high temperature. 9. Let (I) palpate your abdomen. 10. Let (he) check if she is ill with pneumonia.

Exercise 4. Translate the following sentences, pay attention to the compound prepositions (складні прийменники).

as to – що стосується
due to – через, у результаті чого, завдяки
depending upon – залежно від
according to – згідно з
during – під час

1. Many vitamins play a vital role due to their properties.
2. Depending on the sizes these cells are divided into groups.
3. As to his research work it deals with the problems of the new form of influenza.
4. I saw many operations during my practice at the hospital.
5. According to the timetable we have four periods a day.

III. Independent Work: Why Are British Sailors Called "Limeys"?

Exercise 1. Read the text.

Why Are British Sailors Called "Limeys"?

In the early days of long sea trips, thousands of sailors died each year from a strange disease. First they would get dizzy and lose their appetite. Their mouths would get sore and their teeth would loosen. If their skin was touched even lightly, it would turn black and blue.

The name of this "sailor's disease" is scurvy. At first, no one knew what caused it. Many sailors got better after their ship reached shore. For this reason, many people said scurvy was caused by "a change of air".

In 1535, explorer Jacques Cartier's men developed scurvy. They drank fruit juices and were cured. Other sailors were saved in the same way. No one knew why.

Two centuries passed. Sailors were still dying from scurvy. Finally, a group of British doctors studied the disease. They found that fruit juices could both cure and prevent scurvy. Still, they did not know what caused it.

After this study, English ships always carried a supply of limes. Each sailor had to eat a piece every day. Since then, British sailors have been called "limeys."

It took many years before doctors learned the true cause of scurvy.

Sickness is often caused by a bacteria or a virus. But scurvy starts when there is a lack, or deficiency, of vitamin C in a person's diet. For this reason, scurvy is called a deficiency disease. Vitamin C is an important nutrient found in limes and other citrus fruits. Oranges and lemons are citrus fruits.

Notes:
lime – лайм (різновид лимона)
scurvy – цинга
deficiency – дефіцит, нестача
limey ['laimi] (амер. сленг) англієць

Exercise 2. Read "A Story from History", answer the questions.

In 1497 Vasco da Gama sailed around the Cape of Good Hope. The trip took 8 months. He started out with one hundred and sixty men. One hundred of them died of scurvy.

1. What vitamin did they lack?

Christopher Columbus' log tells us that many of his sailors became ill with scurvy.

2. Why do you think the sailors did not die?

In 1735, four ships sailed from England to the East Indies. They were the Dragon, the Hector, the Susan, and the Ascension. On all ships except the Dragon sailors developed scurvy. One of the ships served fruit juice to the crew.

3. On which ship was the crew served fruit juice?

Like it or not, while at sea, every English sailor had to eat a piece of lime every day.

4. Do sailors have to eat limes today? Why?

Remember that citrus fruits are a rich source of vitamin C. Oranges, grapefruits, lemons, and limes are popular citrus fruits.

5. What do citrus fruits have that helps prevent scurvy?

Surprise! The tomato is not a vegetable. It is a fruit. The tomato is also a rich source of vitamin C.

6. What are some foods that you should eat so that you get enough vitamin C?

Exercise 3. Complete the sentences.

1. The best title for this story is
   a) Long Sea Voyages
   b) The History of the British Navy
   c) The Story of Scurvy
   d) How Vitamin C Got Its Name
2. Jacques Cartier's men were cured of scurvy because
   a) they drank fruit juices
   b) the air was better
   c) their ship reached shore
   d) they were on a diet
3. The term "limey" started
   a) in 1535
   b) before 1535
   c) about 1735
4. British doctors discovered
   a) vitamin C
   b) citrus fruits
   c) scurvy
   d) that citrus fruits prevent and cure scurvy

5. Oranges and limes are examples of
   a) vegetables
   b) diets
   c) juice
   d) citrus fruits

Exercise 4. Are the following sentences true or false?

1. Only sailors can get scurvy.
2. All diseases are caused by bacteria or viruses.
3. Deficiency means "too much".
4. Eighteenth century doctors discovered that limes have vitamin C.
5. Scurvy is "catching".

Exercise 5. Complete the sentences with the words below (one word may be used twice).

loose teeth, loss of appetite, vitamin C, limes, scurvy, oranges, sore gums, grapefruits, easy black and blue marks

1. A deficiency of vitamin C causes a disease called … .
2. Four symptoms of scurvy are … .
3. English sailors are called limeys because they were given … to eat.
4. Limes help to treat scurvy because they are rich in … .
5. Three examples of citrus fruits are … .

LESSON TWENTY-SIX

I	**Speaking**	Infectious Diseases
II	**Grammar**	1. Дієслово у Future Continuous (§73). 2. Прохання і наказ у непрямій мові (§74). 3. Підрядні речення наслідку (§75)
III	**Independent Work**	Bacteria

I. Speaking: Infectious Diseases

Exercise 1. Phonetic reading: learn the pronunciation of the following words and word combinations, translate them.

Blood, a drop of blood, blood transfusion.

Cough, a slight cough, a bad cough, a dry cough.

Disease, a fatal disease, a curable disease, an incurable disease, a catching (infectious) disease.

Throat, a sore throat, to gargle the throat.

Skin, dry skin, hot skin, rash on the skin.

Fever, to keep a fever down, enteric fever.

Exercise 2. Learn the following words.

bacterium (pl. bacteria) [bæk'tiəriəm] бактерія
bacillus (pl. bacilli) [bə'siləs] бацила
cholera ['kɒlərə] холера
diphtheria [dif'θiəriə] дифтерія
enteric [en'terik] fever – черевний тиф
whooping cough ['hu:piŋ'kɔ:f] кашлюк
rash [ræʃ] висип
microorganism [ˌmaikrəu'ɔ:gənizm] мікроорганізм
bacteriological [bækˌtiəriə'lɒdʒikəl] бактеріологічний
plague [pleig] чума
malaria [mə'leəriə] малярія
malaise [mæ'leiz] нездужання, недуга
eruption [i'rʌpʃn] висип
prodromal [prə'drəuməl] продромальний, що передує початку хвороби
regain [ri'gein] повернути собі, відновити (здоров'я)
stool [stu:l] випорожнення; табуретка
stamp out ['stæmp'aut] ліквідувати, викорінити
thirst [θɜ:st] спрага
vaccination [ˌvæksi'neiʃn] вакцинація
peeling ['pi:liŋ] відшаровування; відлущення
rabies ['reibi:z] сказ, водобоязнь
serum ['siərəm] сироватка (крові)
sputum ['spju:təm] мокротиння
saliva [sə'laivə] слина
onset ['ɒnset] початок; напад
meningitis [ˌmenin'dʒaitis] менінгіт, запалення мозкової оболонки
itch, itching ['itʃiŋ] сверблячка, свербіння

Exercise 3. Learn the following word combinations.

infectious (catching) disease – інфекційна (заразна) хвороба
gradual onset – поступовий початок
sudden onset – раптовий початок
prodromal symptoms – симптоми, що передують хворобі
characteristic features – характерні риси
initial stage of the disease – початкова стадія хвороби
a clinical feature – клінічна ознака
natural immunity – природний імунітет
artificial immunity – набутий імунітет

Exercise 4. Here is a list of some infectious diseases. Some of them are considered to be children's infections and other both children's and adults'. Learn their names.

Children's Diseases

chicken pox – вітрянка
mumps – свинка
measles – кір
polio – поліомієліт
whooping cough – кашлюк
scarlet fever – скарлатина
roseola – краснуха (немовлят)
German measles (rubella) – краснуха

Infectious Diseases

AIDS (acquired immune deficiency syndrome) – СНІД (синдром набутого імунодефіциту)
diphtheria – дифтерія
diarrhea – пронос
dysentery – дизентерія
flu (influenza, grippe) – грип
hepatitis – гепатит
tetanus – правець
meningitis – менінгіт
scabies – сверблячка, короста
tuberculosis – туберкульоз
enteric fever – черевний тиф

Exercise 5. Read the text.

Infectious Diseases

Infectious diseases are diseases which can pass from one person to another by different ways: through the nose and mouth, simply by touch, through the blood, etc.

A person who has any infectious disease must be isolated immediately. The main task of medical workers is to prevent the spread of infection.

All infectious diseases are caused by specific microorganisms which may be revealed by bacteriological tests: for example, typhoid bacilli are found in the blood, stool; in enteric fever they are sometimes found in the urine; meningococci are found in the blood and cerebrospinal fluid in meningitis.

Today such diseases as the plague, cholera, malaria and others have been stamped out altogether in our country.

It is important to say that such infectious disease as scarlet fever may have a sudden onset; however in others, such as enteric fever, the onset may be gradual. Prodromal symptoms appear earlier than the characteristic features, and generally it is difficult to make a diagnosis in the initial stages of the disease.

A sore throat, a running nose, cough, high temperature may occur among the most characteristic local symptoms. Many diseases are accompanied by rash. Special attention should be paid to the type of the rash, its color, distribution and whether it is associated with itching or not. Abdominal infectious diseases may cause diarrhea. Only in certain individuals natural immunity to infectious diseases may exist. An artificial immunity results from prophylactic vaccination, which is carried out against a number of infectious diseases.

If nurses look after patients who have any infectious disease, they must:

- prevent the spread of infection;
- wear a mask and a special gown;
- wash hands carefully after visiting infectious patients;
- disinfect bedclothes after use;
- remember that a good bedside manner and hearty attitude is an effective medicine (ліки).

Exercise 6. Answer the following questions.

1. What are infectious diseases?
2. What ways of passing infection from one person to another do you know?
3. What causes these diseases?
4. What infectious diseases have been stamped out in our country?
5. What are the main symptoms of many infectious diseases?
6. What must nurses do to prevent the spread of infection?
7. What must nurses remember while caring for a person who has any infectious disease?

Exercise 7. Translate into English.

Особливу увагу слід звернути на тип висипу, перші продромальні симптоми, скарлатина може розпочатись раптово, початок може бути поступовим, на ранніх стадіях захворювання, лише в окремих людей, супроводжуються висипанням, носити маску і спеціальний халат, через кров, продезінфікувати білизну після використання.

Exercise 8. Complete the sentences using expressions in the right column.

	not to disinfect bedclothes after use.
	to prevent spread of infection.
It is wrong	to wear a mask and a gown.
It is important	to put patients in a ward.
It is dangerous	to put patients with different diseases in the same ward.
It is necessary	to wash hands after contacting an infectious patient.
	to prevent the disease by prophylactic vaccination.

Exercise 9. Find substitutes for the words and expressions in bold type.

1. In our country doctors **have put an end** to the plague, cholera and malaria.
2. What **infectious diseases take place** in most Asian countries today?
3. The patient's **recovery** after illness was not so good as the doctor wanted.
4. The patient complains of **a general feeling of uneasiness.**
5. **The appearance of rash** is a definite clinical manifestation of measles.
6. **Not natural** immunity can be provided against many infectious diseases.

Exercise 10. Make up your own situations on the following topics.

1. Prevention of infectious diseases.
2. Measures of stopping the spread of infection.
3. About infectious diseases.

II. Grammar Exercises

Exercise 1. Put in any of the given words: *many, much, little, a little, few, a few.*

1. Are there ... higher schools in your native town? 2. Did your mother take ... medicine to keep the fever down? 3. How ... subjects does the first-year curriculum include? 4. In his childhood he suffered from ... children's diseases, and he isn't a very healthy man now. 5. How ... patient's cards did the registering clerk fill in yesterday? 6. How ... blood did the nurse take from your finger? 7. The human body consists of ... bones. 8. There is ... milk in your glass. May I add some?

Exercise 2. Name the parts of speech of the following words, pay attention to their suffixes.

react – reactive – reaction
act – active – action
collect – collective – collection
connect – connective – connection
infect – disinfective – infection – disinfection

Exercise 3. Put the following sentences in the Future Continuous Tense, add necessary adverbs.

1. What are they doing? 2. He is not packing his things, is he? 3. Are you waiting for your friend? 4. The doctor's staying at a hotel. 5. She isn't smoking, is she?

Exercise 4. Make up questions to the words in bold type.

1. I'll be taking **my friend** out to dinner **tomorrow**.
2. **We'll** be watching TV when he comes at 7.
3. You'll be discussing **this problem** all **next lesson**.
4. I'll be seeing **my doctor** tomorrow morning.

Exercise 5. Translate the sentences into Ukrainian. Pay attention how to express the future tense.

1. Я зустрічаюсь із лікарем завтра о 10-й.
2. Я побачуся з друзями, якщо в мене буде час.
3. До побачення. Побачимось завтра.
4. Я візьму лікарняний післязавтра.
5. Коли ти прийдеш до коледжу сьогодні?
6. Вони збираються відвідати його в лікарні.
7. Вони підуть в лікарню, а я залишуся вдома.
8. Ти збираєшся стати лікарем?
9. Я не думаю, що ти підеш до нього завтра.
10. Ти чекатимеш мене весь вечір?

Exercise 6. Complete the sentences using the expressions from the right column, translate them.

1. He asked my mother	відповісти на лист негайно. піти за покупками. зачекати на нього до 10-ї. не вирішувати питання без нього.
2. Ask your friend	продовжити розповідь. не кричати на друзів. розповісти про подорож. не говорити голосно.
3. Tell your friend to ask the patient	на що він скаржиться. що ще його турбує. коли він захворів. які ліки він приймає. чи був у нього головний біль, нежить, чи боліло горло.

Exercise 7. Make up a dialog. Act as a doctor. Use the following sentences.

1. What he complains of. 2. What else troubles him. 3. What his temperature is. 4. When he fell ill. 5. How he feels. 6. What first signs he noticed. 7. What medicine he took. 8. If he was consulted by a doctor. 9. What diseases he had in his childhood. 10. If he was ill with any infectious diseases. 11. If he was treated in a hospital. 12. If he has a pain in the heart region (in the region of his stomach, liver). 13. If he has a headache, a pain in the chest.

Exercise 8. Complete the sentences with adverbial clauses of result and translate them.

She spoke in **such** a low voice **that** … .

The patient was **so** angry with the boys **that**… .

We haven't found her new address yet, **that's why** ... .
They spoke in English, **that's why** ... .
My son will be a teacher **after** ... .
The child will not go to sleep **until** ... .

III. Independent Work: Bacteria

Exercise 1. Read the text.

Bacteria

Bacteria are single-celled organisms of minute size and simple structure. They are usually less than one thousandth of a millimeter in diameter. They differ in shape and are named accordingly. Cocci are small round cells which arrange themselves in different patterns; bacilli are rod-shaped; vibrios are curved rods or comma-shaped; spirochaeta are thin filaments which form spirals. Bacteria contain no formed nucleus and reproduce by simple division. Some are mobile, a property which is due to the movement of protoplasmic processes.

For growth bacteria require an adequate amount of water. Some grow best in air but a few are unable to grow in the presence of free oxygen. Their growth rate is dependent on temperature, each species having its own optimum. In general, cold inhibits growth rate whereas above the optimum their properties change and at still higher temperatures they are destroyed. Their food requirements vary. They are widely spread in nature and are found in the atmosphere, in soil and in water. Some can live and derive sustenance from soil and air but others require organic material and by their action cause putrefaction.

Of a large number of species very few are responsible for a disease in the human being and those that are usually have stricter requirements as regards their living conditions and nutrition. They can be grown in the laboratory on a number of different substances; for example, gelatine, malt extract, solutions of different sugars.

Of the bacteria which are responsible for a disease – known as pathogenic – a few will produce, when grown in a test tube, a highly poisonous substance or toxin which if injected will cause in the body many symptoms of that disease. Other bacteria, while not secreting a toxin, are in themselves poisonous; their toxin only becomes manifested when the killed organisms are injected or when they are killed in the body in the course of disease.

Exercise 2. Make up a short plan using sentences from the text.

Exercise 3. Find sentences about the shapes of bacteria.

Exercise 4. Tell about the necessary conditions for the growth of bacteria.

LESSON TWENTY-SEVEN

I	**Speaking**	Children Diseases
II	**Grammar**	1. Непряма мова (§76). 2. Непрямі питання (§77)
III	**Independent Work**	Deficiency Diseases

I. Speaking: Children Diseases

Exercise 1. Phonetic reading: read the words and word combinations, translate them.

Enteric, enteric fever, to treat for enteric fever.

Occur, cough occurs, rash occurs, local symptoms may occur, these diseases occur seldom.

Diphtheria, to treat for diphtheria, to make a diagnosis of diphtheria.

Whooping cough, in case of whooping cough, to fall ill with whooping cough (pertussis).

Meningitis, cerebrospinal meningitis, epidemic cerebrospinal meningitis, meningococcal meningitis, to treat for meningitis.

Malaise, a constant malaise, general malaise, to complain of malaise, to suffer from malaise.

Eruption, characteristic eruption, eruption appears (disappears), the type of eruption.

Exercise 2. Read and learn the following names of children infectious diseases and children diseases.

smallpox [ˈsmɔ:lpɒks], **variola** – віспа
chickenpox [ˈʧikənpɒks], **varicella** – вітряна віспа
measles [ˈmi:zlz] кір
German measles [ˈʤɜ:mən], **rubella** – краснуха, червона висипка, червінка
mumps [ˈmʌmps], **epidemic parotitis** – свинка
polio [ˈpəʊliəʊ] (poliomyelitis) – поліомієліт
scarlet fever [ˈskɑ:lət] скарлатина
whooping cough [ˈhu:piŋˈkɒf], **pertussis** – кашлюк

Exercise 3. Fill in the blanks with the necessary words given below.
a skin rash, mouth, nose, infectious diseases, be isolated, flushed

1. The disease passes through … and … .
2. The face is … .
3. The child with whooping cough must … .
4. The first symptom in many … is … .

Exercise 4. Translate into English.

Ознаки сильної застуди, висипи на шкірі, інфекційне захворювання, перші симптоми, бути уважним, запобігти розповсюдженню хвороби, бути ізольованим, гігієна рота.

Exercise 5. Read the answers of the mother whose child fell ill. Make up the nurse's questions to her. Act as an interpreter. Say what disease the woman's son had.

N: ... ?
M: My son has a very high temperature.
N: ... ?
M: Yes, he has a running nose and a dry cough, too.
N: ... ?
M: The rash appeared yesterday.
N: ... ?
M: Yes, the light bothers him very much.
N: ... ?

Exercise 6. Read the text and retell it.

Most children with infectious diseases have the same symptoms. The beginning of them is rather common: sore throat, fever, running nose, headache, cough and flushed face. To children infectious diseases belong: chicken pox, measles, mumps, whooping cough, scarlet fever and poliomyelitis. In children such diseases are taking an easier course than in adults.

Very often children fall ill with measles today. Measles is a very infectious disease. The disease passes from one child to another. The first symptoms are: sneezing, coughing. The disease begins with signs of heavy cold, running nose and dry cough. The temperature is high and the child dislikes the light. The rash appears on the third or fourth day behind the ears and around the mouth and then covers the whole body.

The nurse must be very careful to prevent the spread of infection. She must take care of the hygiene of the child's mouth: his mouth and lips must be clean and moist.

The most common infectious disease is influenza (flu, grippe).

An unvaccinated child is exposed to any infectious disease, so children must be vaccinated according to the recommended immunization schedule (see Types of Immunization).

Types of Immunization

Type of Immunization	Beginning of Vaccination	Revaccination				
TB (tuberculosis)	3rd, 5th day after birth	1	2	3	4	5
		7 years old	14 years old			
Polio	3 m., 4 m., 5 m. (three times)	18 m.	3 y.	6 y.	14 y.	
DPT (diphtheria, pertussis, tetanus)	3 m., 4 m., 5 m. (three times)	18 m.	6 y.	11 y.	14 y.	18 y.
Measles	15 m.					
Mumps	15 m.					
Rubella	15 m.					
Hepatitis B	1st day after birth, 3 m., 5 m.					

Exercise 8. Title the text. Make up a plan.

Exercise 9. What recommendations are you going to give a patient with influenza?

Exercise 10. Translate the following sentences into English.

1. Першими симптомами скарлатини є біль у горлі, температура, головний біль і загальна кволість (нездужання). Через день чи два з'являються висипи на шкірі.

2. Привиті діти зазвичай не хворіють цими хворобами.

3. При кашлюку дитина страждає від нападів кашлю, іноді буває блювота. Кашлюк – одна із хвороб, для якої немає спеціальних ліків. Спокій – головні ліки від цього захворювання.

4. Період інфекційної хвороби, під час якого немає характерних клінічних проявів, називається періодом інкубації. Перші симптоми з'являються на другій стадії – продромальній стадії хвороби. При захворюваннях з висипами на шкірі поява висипу – це третя стадія.

5. При скарлатині період злущення, який є найбільш інфекційним, починається на 21–23 день.

II. Grammar Exercises

Exercise 1. Put in the modal verbs *can, may, must* or their equivalents in the required form.

1. If you have a bad headache, you ... take some medicine. 2. The doctor ... perform your blood analysis to be sure of your diagnosis. 3. For what time ... I make the appointment with Dr. Smirnov? 4. A patient ... have a scalding foot bath if he has a bad cold. 5. ... the doctor ... take your blood pressure when he examined you. 6. ... the doctor ... X-ray your chest during the last medical examination? 7. As my sister had caught a bad cold she ... stay in bed. 8. You ... follow the doctor's treatment if you want to be well again soon. 9. ... you cope with the task which was given to you by the teacher some days ago? 10. ... you tell me what subjects the first-year curriculum includes? 11. What ... I take to keep the fever down? 12. ... the students take notes of every lecture? 13. ... I feel your pulse? 14. What ... cause serious complications after influenza?

Exercise 2. You are examining your patient. Ask him to fulfill the following.

1. To strip to the waist. 2. To breathe deeply. 3. To lie down on the couch. 4. To show where he feels the pain. 5. To stand up. 6. To open his mouth. 7. To say "Aah". 8. To close his mouth. 9. To get dressed.

Exercise 3. You are giving your patient some instructions and pieces of advice. Put the verbs into the appropriate form.

1. To take the prescribed medicine (this mixture – for the cough; these tablets – for his headache, these drops – for heart trouble). 2. To apply cups (mustard plasters) every other day. 3. To gargle his throat. 4. To drink hot tea with raspberry jam. 5. To get his blood and urine tested. 6. To do his electrocardiogram. 7. To go to an ophthalmologist and check his eyesight. 8. To stay in bed during 2–3 days. 9. To visit the doctor after some days.

Exercise 4. You are a doctor. You examined the patient yesterday. How did you do it? Use sentences from Exercise 3.

Exercise 5. Read the dialogs. Change direct speech into indirect.

1

"Are you feeling well?" asks the doctor. "Let me see your tongue, please".

"It's no use, Doctor," says the patient. "No tongue can tell how rotten I feel".

2

"I am taking a rest treatment."

"Oh, what do you do?"

"I sit every day for three hours in the waiting room of a busy doctor."

3

Teacher: Have you found out the subject of Dr. Brown's talk yet?

Student: Not yet. I'll be seeing him about it tomorrow morning.

Teacher: Have you asked him what time you could go to his place?

Student: Yes, he told me to come at eleven. He will be waiting for me.

4

Mother: Why are you shouting in here? Your brother has just gone to sleep. Please don't talk so loudly.

Son: Awfully sorry, Mam. How does he feel?

Mother: I don't think he's well yet. He hasn't got a temperature, but he doesn't want to eat anything.

Son: We won't be talking with my friend so loudly, Mam. We'll be playing chess in here.

III. Independent Work: Deficiency Diseases

Exercise 1. Read and translate the texts.

Night Blindness

Have you ever gone to a movie house during the daytime? Were you able to find your way around easily? Probably not. Chances are you had to wait a short time. Your eyes had to "adjust" to the dim light.

This short wait is normal. But some people have to wait a very long time. Their eyes do not adjust to dim light easily. These people suffer from night blindness. Night blindness is a deficiency disease. It is caused by a lack of vitamin A. Vitamin A is important in other ways too. It prevents and cures certain infections of the eyes, nose and throat.

The best source of vitamin A is milk. Carrots and liver are also good sources of vitamin A.

Rickets

Vitamin D helps to build strong bones and teeth. A diet deficient in vitamin D causes a disease called rickets. Mostly, growing children get rickets.

Rickets makes bones and teeth "soft". It causes bowing of the legs or knock-knees. It also makes teeth brittle. They break and decay easily.

Most foods do not supply large amounts of vitamin D. We get most of this important vitamin from enriched milk and by using sunlight. Sunlight provides the energy for our bodies to make vitamin D.

Notes:
night blindness – куряча сліпота
rickets ['rikets] – рахіт

Exercise 2. Complete the sentences with the words below.
children; vitamin D; night blindness; infections of the nose, throat, eyes; vitamin A; brittle teeth; rickets; sunlight; enriched milk; milk; soft bones

1. If your eyes cannot adjust easily to dim light, you may have a disease called … .
2. Night blindness comes from a deficiency of … .
3. Vitamin A is used to treat night blindness. Vitamin A is also important in preventing and treating some … .
4. The best source of vitamin A is … .
5. The human body makes vitamin D from … .
6. Not enough vitamin D can cause a disease called … .
7. Two symptoms of rickets are … and … .
8. Mostly … suffer from rickets.
9. The food that supplies the most vitamin D is … .
10. Enriched milk has extra … added to it.

Exercise 3. Find correct answers.

a) vitamin A deficiency disease	1) rickets
b) good sources of vitamin A	2) night blindness
c) the "perfect" food	3) scurvy
d) vitamin D deficiency disease	4) milk
e) vitamin C deficiency disease	5) liver, carrots and milk

Exercise 4. Are the sentences true or false?
1. Most of our vitamins come from food.
2. The body changes sunlight to vitamin A.
3. Growing children need more vitamin D than adults.
4. Rickets can be helped by staying in the sun.
5. Night blindness is caused by bacteria.
6. Vitamin A may help cure night blindness.
7. Citrus fruits can cure rickets.
8. Night blindness, rickets, and scurvy are deficiency diseases.
9. Night blindness, rickets, and scurvy are the only deficiency diseases.
10. We can be sure of getting enough nutrients if we eat a lot.

LESSON TWENTY-EIGHT

I	**Speaking**	Surgical Department
II	**Grammar**	1. Дієслово у Future Perfect (§78). 2. Ступені порівняння прикметників (§79). 3. Безособові речення (§80)
III	**Independent Work**	It Is Interesting to Know (Superlatives)

I. Speaking: Surgical Department

Exercise 1. Read the words and word combinations.

Manifestation, enteric fever, to stamp out, to occur, running nose, cough, whooping cough, mumps, diphtheria, scarlet fever, rash, a rash on the skin, distribution, to associate, to itch, itching, fluid, meningitis, polio, poliomyelitis, measles, cholera, plague, malaria, vaccination, immunity, malaise, to range, eruption, chickenpox, immunity to TB (tuberculosis).

Exercise 2. Read and learn the following words.

surgical ['sɜ:dʒikl] хірургічний
surgeon ['sɜ:dʒn] хірург
surgery ['sɜ:dʒəri] хірургія
appendicitis [ə,pendi'saitis] апендицит
gangrenous ['gæŋgrinəs] гангренозний
perforate ['pɜ:fəreit] пробивати; просвердлювати
peritonitis [,peritə'naitis] перитоніт
remove [ri'mu:v] знімати; видаляти
rupture ['rʌpʧə] розрив
fatal ['feitl] фатальний, неминучий
convalescent [,kɔnvə'lesnt] той, що одужує
cholecystitis [,kɔlisis'taitis] холецистит
amputate ['æmpjuteit] ампутувати
bandage ['bændiʤ] бинт; пов'язка; перев'язувати
operate ['ɔpereit] оперувати
outcome ['autkʌm] кінець; результат
plaster cast [,plɑ:stə'kɑ:st] гіпс
postoperative [,pəust'ɔpərətiv] післяопераційний
stitch [stiʧ] стібок; (хірургічний) шов
urgent ['ɜ:dʒent] терміновий
reaction [ri'ækʃn] реакція

Exercise 3. Learn the following word combinations.

a surgical patient (wound, clinic) – хірургічний пацієнт (рана, клініка)
an acute (chronic) appendicitis – гострий (хронічний) апендицит
gangrenous area – змертвіла площа
perforating wound (ulcer, appendix) – прободна рана (виразка, апендикс)
to remove a dressing, a gown, a foreign body – зняти пов'язку (халат), видалити чужорідне тіло
to prevent a rupture – запобігти розриву
a fresh outer bandage – свіжа зовнішня пов'язка
a gauze [gɔ:z] **drain** – ватний тампон
an urgent case – терміновий випадок

Exercise 4. Make up sentences with the word combinations from Exercise 3.

Exercise 5. Translate the following sentences.

1. У хірургічному відділенні є операційний блок, палати для хірургічних хворих і їдальня 2. На операційному столі ми бачимо хворого з діагнозом апендициту. 3. Медсестра готує інструменти до операції. 4. Перед операцією хірург одягає стерильний халат, шапочку і рукавички. 5. Медсестра дає хірургу ватний тампон. 6. Хворий готовий до операції.

Exercise 6. Read and act out the dialog.

Patient: May I come in?
Doctor: You may, please, sit down. What's your surname?
P: My full name is … .
D: How old are you?
P: I am … .
D: Are you married?
P: No.
D: What is your address?
P: My address is Podilska Street No 16.
D: What are you complaining of?
P: I have a stomachache.
D: How long has it been hurting you?
P: About four hours. The pain is so baD: Help me, doctor.
D: I'll examine you. Open your mouth and say "Aah".
P: "Aah".
D: Show me your tongue. It isn't clean. Are you sick?
P: Sometimes.
D: Did you take any medicine for the stomachache?
P: No, doctor. I didn't.
D: Lay down on the coach, please. Let me see your belly. (Palpates the abdomen.)
P: Ah! Here is the worst pain.
D: Well, please, stand up, you can dress. You must keep to a diet and stay in bed for two or three days.
P: Will you prescribe me some medicine?
D: Here is the prescription. That must be taken on an empty stomach three times a day. Come on Friday.
P: Thank you, doctor. Good-bye.

Exercise 7. Read the text, retell it.

Surgical Department

My name is Oleh. I am a student of the medical college. My father is a doctor. He works as a surgeon in the surgical department at a hospital. He works very hard. He is a good surgeon. His work begins at eight. When he comes to the hospital, he goes to his wards to examine his patients. He asks the ward nurse about postoperative conditions of his patients. The nurse sometimes tells him that the temperature of some postoperative patients is rather high and some of them have a swelling. But as a rule she says that there are no postoperative reactions. My

father gives her necessary instructions. Then he goes to the operating room. During my practice I saw an operation in the operating room.

Before the operation my father and his assistants washed their arms and hands, dried them with a sterile towel, put on sterile gowns, masks, surgical caps and gloves. The nurse helped them to do it.

On the operating table there was a man who felt a severe abdominal pain. The surgeon diagnosed appendicitis. The patient was prepared for the operation. The assistant gave the patient anesthesia. The nurse gave a scalpel to the surgeon, the operation began. It lasted about an hour and was successful.

Exercise 8. Make a plan of the text.

Exercise 9. Answer the questions.

1. What did Oleh see during his practice?
2. Who felt a severe abdominal pain?
3. What was the diagnosis?
4. What did the doctor do before the operation?
5. Who gave the patients anesthesia?
6. How was the operation finished?

Exercise 10. Read the text and translate it.

In the dressing room the surgeon took out the stitches on the patient's wound after the operation. It didn't hurt the patient. The suture was only about 10 cm long and the patient didn't complain of any tenderness on examination of the operative area. The surgeon hoped to discharge this patient from the hospital in a week.

Exercise 11. Make up your own situations on the following topics, using the given words and word combinations.

1. *In the Surgical Department:* a surgeon, a surgical department, first of all, to examine, a ward nurse, postoperative conditions, a swelling, necessary instructions.
2. *In the Dressing Room:* to apply a dressing on the wound, a bandage, a nurse, a gauze drain, to bandage, to take a patient on a wheel-chair into the ward, to hurt, tenderness.
3. *Examination of a Postoperative Patient:* an abdominal operation, to put in a stitch, to take stitches out, postoperative reaction, a swelling, to complain of tenderness, to have a wonderful bedside manner; to discharge from the hospital.

II. Grammar Exercises

Exercise 1. Use the verb in present, past and future tenses with each of the adverbs of time given in brackets.

Model: *He gets up early (every day, yesterday, tomorrow). → He gets up early every day.*
He got up early yesterday.
He will get up early tomorrow.

1. Pete goes to the institute (on working days, last week, next week). 2. They attend lectures (on Saturday, last Wednesday, next Friday). 3. He works in the laboratory (every day,

tomorrow afternoon, in a week). 4. I go to the library (every Monday, on Monday, next Monday). 5. Students take examinations (at the end of the academic year, last month, in a week).

Exercise 2. Give degrees of comparison of the following adjectives.

Short, little, small, important, long, late, low, good, cold, hard, difficult, old, beautiful, bad, tall, happy, many.

Exercise 3. Give antonyms of the following words.

. The best, the latest, the strongest, the oldest, the most difficult, the tallest, the widest, the unhappiest, the nearest, the worst.

Exercise 4. Open the brackets. Mind degrees of comparison of adjectives.

1. He is (tall) than his father is.
2. My sister is 5 years (young) than she is.
3. Are you (old) in the family?
4. Who is (good) nurse at the hospital?
5. Jane is (beautiful) of all.
6. She will get (thin) when she gets (old).

Exercise 5. Find sentences in the Future Perfect Tense, translate them.

1. I shall have read the text about surgery by this time tomorrow.
2. More and more people in all countries are looking for treatment of AIDS.
3. Will she have given the final answer before he returns?
4. By six o'clock we shall have made a report under the title of "Vitamins".
5. We must pay great attention to the question of anesthesia.
6. They will have spent much money to build the new hospital by that time.

Exercise 6. Translate the sentences into English:

1. Я ще не написала текст про обов'язки медсестри в хірургічному відділенні, але я її напишу до того, як ти прийдеш з лекції.
2. Вона завершить цю доповідь до 1 вересня.
3. Ми побудуємо багато будинків до кінця наступного року.
4. Звичайно, вона напише цю статтю про властивості крові до початку року.

Exercise 7. Name the parts of speech of the following words, point the ways of their formation. Translate them.

Unsuitable, invitation, impossible, misspell, unwritten, illegal, agreement, retirement, irregular, payment, unthinkable, continuation, lagging, flowery, rainy, playable, seaport, parentless, driver.

Exercise 8. Rewrite the sentences in the Past and Future Indefinite Tenses, change the adverbs of time.

1. It's cold today, isn't it?
2. It isn't late, is it?

3. It's dark here, isn't it?
4. It's six o'clock, isn't it?
5. Is it warm there?
6. Is it cold?
7. It isn't dark yet.
8. It's too late to ring him up.

Exercise 9. Translate into English.

1. – Чому ви так запізнились? Уже 8-ма година.
– Краще пізно, ніж ніколи. Не сердись, будь ласка. Ми не могли прийти раніше.
2. Учора ти запізнилась на фільм. Коли ти зайшла, було темно, а фільм уже почався.
3. Він каже, що ця палата більша, ніж його кімната. Це найбільша палата в хірургічному відділенні.
4. Тут досить холодно. Давайте перейдемо в іншу кімнату. Ходімо. Увімкніть світло, тут темно.
5. Котра година на вашому годиннику? Лікар вже мав би прийти.

III. Independent Work: Superlatives

Exercise 1. Read some interesting facts about extraordinary "mind and body" world records. Translate them.

Superlatives

The oldest. The oldest person was a Japanese man called Shigechiuyo Izumi. He was born on 28 June 1865 and died 120 years and 237 days later on 21 February 1986.

The world's oldest mother – Ruth Alice Kistler (USA) – gave birth to a daughter on 18 October 1956 when she was 57 years and 129 days old.

The longest. The longest bone in the human body is the thigh bone of Robert Wadlaw's femur (remember him? – he was the world's tallest man) measured 74 centimeters.

The longest fingernails are on the left hand of Shridar Chillal from India. Added together, their total length is 4.52 meters. The world record for the longest hair also belongs to someone from India. Her name is Mata Jagdamba and in March 1989 her hair was 6,4 meters long. The longest beard – 5.3 meters – was grown by a Norwegian man called Hans N. Langseth. Langseth died in 1927 and 40 years later his beard was presented to an American museum.

How long can you stand up for? The world record belongs to Swami Maujgiri Maharaj from... you guessed it – India. He stood for 17 years in the period 1955–1973. How did he sleep? By leaning against a plank.

The strongest. The strongest substance in the human body is tooth enamel (that's the hard white substance on the surface of teeth).

Can you guess where the strongest muscles in the body are? Well, the answer is in the jaw. They're the muscles which are used for chewing and biting.

The most unusual. The most unusual diet in the world is that of Frenchman Michel Lotito (born 1950) who regularly eats metal and glass. Lotito has eaten all of the things on this list since 1966:

- ten bicycles;
- a supermarket trolley;
- seven TV sets;
- six chandeliers;
- a Cessna light aircraft;
- a coffin.

The shortest. One of the shortest men was an American. Calvin Phillips (1891–1912) weighed less than one kilo at birth and stopped growing when he was five years old. For the rest of his brief life he was just 67 centimeters tall.

The shortest woman was eleven centimeters smaller. Pauline Musters (1876–1895) came from Holland and measured only 61 centimeters when she was nineteen.

The tallest. The tallest man was an American called Robert Wadlow (1918–1940). His height? An incredible 2 meters 72 centimeters.

The tallest woman came from China. She was born in 1964, her name was Zeng Jinlian and when she died in 1982 she measured 2 meters 47 centimeters.

The tallest tribes both come from Africa. One of them is the Dinka, who live in Sudan. The other is the Watusi, who live in Rwanda and Burundi. The average height for a Watusi man is 1 meter 95 centimeters and for a Watusi woman it's 1 meter 77 centimeters.

The heaviest. The world's heaviest human being was John Brower Minnoch (1941–1983) from the state of Washington, USA. In 1976 he weighed 442 kilos. The heaviest woman – Rosie Carnemolla of New York – was born in 1944. Her maximum weight? It was 385.5 kilos on 13 March 1988. The heaviest organs in the human body are (a) the skin (yes, doctors call the skin an "organ"), (b) the liver. The average human skin weighs approximately 2.7 kilos and the average liver weighs 1.5 kilos, that's four times more than a normal heart.

The most. The most children born to one mother is 69. That's the number of babies which an eighteenth-century Russian woman had in the years between 1720–60. They included 16 pairs of twins, 7 sets of triplets (three babies) and 4 sets of quadruplets (four babies).

Notes:

superlative [sʊ'pɜ:lətiv] найвищий ступінь
guess [ges] здогадуватися
jaw [ʤɔ:] щелепа, підборіддя
bone [bəʊn] кістка
femur ['fi:mə] стегно
fingernail ['fiŋgəneil] ніготь пальця руки
beard [biəd] борода
lean [li:n] (leaned, leant) нахилятися, спиратися
plank [plæŋk] (обшивна) дошка
trolley ['trɒli] візок
chandelier [ʃændə'liə] люстра
coffin ['kɒfin] труна
human being ['hju:mən] людина
average ['ævəriʤ] середній
approximately [ə'prɒksimətli] приблизно
height [hait] висота; зріст
incredible [in'kredəbl] неймовірний
tribe [traib] плем'я

LESSON TWENTY-NINE

I	**Speaking**	Operating Nurse
II	**Grammar**	1. Дієслово у Future-in-the-Past Indefinite (§81). 2. Умовні підрядні речення (§82)
III	**Independent Work**	Surgery

I. Speaking: Operating Nurse

Exercise 1. Read the words and word combinations.

Surgical, surgeon, surgery, to harm, to handle, ambulance, to be dangerous for smb to do smth, gangrenous, to perforate, to operate on smb for some disease, to remove, to prevent, rupture, fatal outcome, traumatological, fracture, to set a fractured bone, plaster of Paris, immobilization, compound, to undergo an operation for smth, convalescent, dressing room, to perform an operation on smb for smth, postoperative, to bare, dressing, stitch, to hurt, suture, tenderness, suppurative, to wheel, to dress smb's wound, bandage, gauze drain, to soak, pus, edge, solution, to bandage, profuse, bleeding, urgent, to survive.

Exercise 2. Read and learn the following words.

traumatological – травматологічний
fracture – перелом
immobilization – накладання шини; імобілізація
stitch – шов
swab – тампон
to touch – доторкатися
to soak – просочуватись
profuse – рясний; багатий (на)
survive – переживати; витримати
mask –,маска
forceps – пінцет
scalpel – скальпель
dry – сухий
dust – пилюка; бруд
secure – надійний; міцний
successful – успішний
clips – скоби (для з'єднання рани)
hernia – грижа

Exercise 3. Learn the following word combinations.

to be admitted to hospital – бути доставленим у лікарню
to discharge from hospital – виписати з лікарні
compound fracture – відкритий перелом
to put a plaster cast for immobilization – накласти гіпс для імобілізації
to introduce a gauze drain into the wound – ввести ватний тампон у рану
to be soaked with pus (blood) – насичитись (увібрати) гноєм (кров'ю)
physiological solution – фізрозчин
solution of antibiotics – розчин антибіотиків
to cause profuse bleeding – спричинити сильну кровотечу
to survive the operation (disease) – пережити операцію (хворобу)
to protect the wound from dust – захистити рану від забруднення
to make the dressing secure – накласти надійну пов'язку
to give smb narcosis – дати комусь наркоз
the rules of aseptics – правила асептики

Exercise 4. Make up sentences, put the words in the right order.

1. In, saw, room, operating, Bob, some, operations, the.
2. Before, doctor, arms, the, washed, operation, the, his, and, hands.
3. Feels, a, the, abdominal, patient, severe, pain.
4. The, gave, to, scalpel, nurse, a, surgeon, the.
5. Successful, the, operation, was.

Exercise 5. Find Ukrainian equivalents.

1) an operating room	a) операційна сестра
2) to test the abdomen	b) операційний стіл
3) an operative wound	c) дивитися на зіниці
4) an operating table	d) дезінфікувати шкіру
5) to listen to lungs	e) призначати лікування
6) an operating field	f) операційна (кімната)
7) to prescribe a treatment	g) операційне поле
8) to look at pupils	h) вислуховувати легені
9) an operative nurse	i) робити операцію
10) postoperative condition	j) досліджувати шлунок
11) to disinfect the skin	k) післяопераційний стан
12) to perform an operation	l) операційна рана
13) surgical needle	m) хірургічна голка

Exercise 6. a) Read the sentences by means of which you may describe surgeon's work.

1. Every day a surgeon makes the morning round. 2. He examines patients, makes diagnosis. 3. He prescribes operations and treatment. 4. Many patients are operated on by this surgeon.

b) Describe some surgeon's work using the verbs in the correct form:

Every day these surgeons: (to make) the morning round; (to examine) many patients; (to palpate) them; (to make) diagnosis; (to prescribe) them treatment and (to perform) many operations.

Exercise 7. a) Read the sentences describing medical personnel's actions in the operating room.

Before the operation: 1. The surgeon and assistants wash their hands, put on sterile gowns, caps, masks and come into the operating room. 2. The anesthetist gives the patient anesthesia.

During the operation: 1. The surgeon performs the operation. 2. The assistants help the surgeon, pass instruments and control the patient's condition.

After the operation: The doctors and nurses pay much attention to the patient.

b) Answer the following guestions.

1. What do the surgeon and assistants do before the operation? 2. What does the anesthetist do before the operation? 3. Who performs the operation? 4. What do the assistants do during the operation? 5. Who pays much attention to the patient after the operation?

Exercise 8. Do the exercise in pairs. You are a surgeon and you receive patients in a polyclinic. You are talking with your patient. Ask him:

a) 1. His first name, surname. 2. His age. 3. His address. 4. His profession. 5. What persons his family consists of.

b) 1. What's happened. 2. What he complains of. 3. What else troubles him. 4. Where he feels his pain. 5. If his pain is severe (weak, dull). 6. If his pain radiates to his abdominal part (his back, shoulder). 7. If his pain appears on pressure. 8. If he has pain in the region of liver (stomach). 9. If he was consulted by a doctor. 10. What diseases he had in his childhood. 11. If he was hospitalized. 12. If he was operated on.

c) You are examining your patient. If your patient has severe abdominal pains, ask him to fulfill the following:

1. To strip to the waist. 2. To lie down on the couch. 3. To show where he feels his pains. 4. To sit down.

Exercise 9. Read the text.

Operation

The surgical department is on the first floor of this hospital. This department houses 50 staffed beds. One can see patients with surgical diseases, such as appendicitis, ulcer of abdomen, tumor, carbuncle, phlegmon, etc. If an operation is necessary, the doctor insists on its being performed immediately. Operations are performed in a special operating theater (room).

There is a large operating theater in this department. Here one can see two operating tables, instrument tables, a few small cabinets for suture material, dressings and instruments.

Before the operation nurses prepare surgical instruments following the rules of aseptics. After sterilizing them they put instruments on a special table covering them with sterile material.

There are different instruments here. They are scalpels, syringes, surgical needles, scissors, wound clips, pincettes and a sterilizing drum.

Before the operation the surgeon and his assistants wash their hands according to the rules of surgery and put on sterilized gowns, caps and special masks on their faces.

The patient is put on an operating table and covered with a sterilized cloth. Then a doctor or an assistant begins to narcotize the patient. When the patient has fallen asleep, the surgeon disinfects the skin of the region to be operated on and begins to perform the operation. One assistant helps the surgeon during the operation. Other assistants listen to the heart, feel the pulse and look at the pupils. They use different ways of controlling the patient's condition. During the operation special devices are used for artificial respiration and blood circulation. The operation being over, the patient is moved to the ward.

After the operation the patient is provided with special care and attention. The surgeon prescribes him definite medicine and diet. Every day the surgeon examines patients, dresses their wounds and introduces fresh gauze drains into them. He listens to the patients' lungs and hearts, tests their abdomens and so on.

The surgeon prescribes patients proper treatment. Many patients are doing well. Soon they will leave the clinic and return home. Some patients are in bad condition. The doctors and nurses pay much attention to them.

Exercise 10. Answer the following questions concerning the text.

1. Where is the surgical department? 2. How many staffed beds does this department house? 3. What is there in the operating theater? 4. What do nurses do before operations? 5. What instruments do they put on a special table? 6. What does a surgeon do before an operation? 7. When does a surgeon begin to perform the operation? 8. What do assistants do during an operation? 9. What kind of devices are used during an operation? 10. Where is the patient moved after the operation?

Exercise 11. Translate some questions to the text.

1. Яку увагу приділяють медсестри хворим після операції? 2. Що повинна виконувати медсестра? 3. Хірург призначає лікування хворому, чи не так? 4. Коли виписують хворого із лікарні?

Exercise 12. Make up a story about your surgical department keeping the following consistency.

Description of the surgical department; furniture and things in the operating room; patients of the surgical department; your surgeon's work; your medical personnel's actions.

II. Grammar Exercises

Exercise 1. Choose the correct form of the verbs in brackets, translate the sentences.

1. I (*to live*) at the student's hostel now. 2. My friend (*to graduate*) from the college last year. 3. I think he (*to enter*) the medical year. 4. The students of his group (*to take*) an active part in the meeting last Saturday. 5. My sister (*to go*) to the library every week. 6. I (*to come*) home late today. 7. Ann lives near our college and never (*to take*) a bus to come there. 8. In three years you (*to get*) a diploma of a nurse. 9. He often (*to receive*) letters from his parents.

Exercise 2. Look at the following words, find similar roots in English and Ukrainian, try to translate them without the dictionary.

Potential, natural, final, practically, rational, cubic, local, crystal, concentrate, function, regulator, preventive, intensive, productive, test, text, result, system, diagnostic, incubator, microscope, filter, minute, computer.

Exercise 3. Give the degrees of comparison of the following adjectives.

Emotional, healthy, cold, low, good, warm, weak, famous, dependent, little, clear, far, important, bad.

Exercise 4. Write out the verbs in the Future-in-the-Past Tense.

Is giving, will have operated, will be prescribing, saw, did, dressed, were decided, would repair, will be given, should visit, are making, would look after, were calling, should speak.

Exercise 5. Read and translate the sentences.

1. The doctor told me that the next lesson would not be difficult. 2. They said that the treatment of cancer would be developed soon. 3. I thought that I should get the job at our hospital. 4. I didn't know that Mr. Grey would come. 5. I thought she would help me.

Exercise 6. Translate the sentences, name the types of clauses (типи підрядних речень).

a) 1. Medical experience knows cases when people who were regarded clinically dead returned to life and are still alive. 2. There are all grounds to hope that with scientific progress new preparations will be found which will make surgical intervention unnecessary. 3. For the first time ever, doctors had the means with which they combated an incurable disease where previously they had been only helpless observers. 4. If a person falls ill, he will ring up his local polyclinic and call in a doctor. 5. The only problem is that, while we are putting ourselves in the hands of trained experts who have devoted their lives to medicine, they are now basing their diagnoses on the results of laboratory tests which in many cases are done by people barely out of high school.

b) 1. She said she knew him very well. 2. He would come here were he in Kyiv. 3. The hotel we stayed at is in the center of the city. Had he time, he would have come.

Exercise 7. Complete the following sentences.

1. I should have missed the lesson, if … .
2. If I were you, … .
3. If my friend were a surgeon, … .
4. If I had money about me, … .
5. They would operate this patient if … .
6. If the nurse had spare time, … .
7. If he left home at twelve, … .
8. If the patient received good results of analysis, … .

Exercise 8. Translate into English.

1. Ми запізнимося на операцію, якщо заняття триватиме до кінця. 2. Якби я був на твоєму місці, я обрав би професію хірурга. 3. Якби ти була операційною медсестрою, ти дотримувалася б правил асептики. 4. Вони прооперують пацієнта, якщо результати аналізів підтвердять діагноз. 5. Медсестра зробила б ін'єкції швидше, якби в неї був вільний час.

Exercise 9. Make up sentences.

	he		do the operation.
In your situation	she		apply a dressing.
But for me	I	should	cut it with scissors.
But for them	we	would	put the stitches out.
	you		desinfect the operation area.
	they		look after patients.

III. Independent Work: Surgery

Exercise 1. Read and translate the text.

Surgery

Treatment of injuries or diseases by operative techniques is the subject of surgery.

The surgeon has always been an integral part of medical science. Early medical texts are chiefly devoted to records of surgical cases. Strangely, however, great advances in surgery have been dependent on medical discoveries in other fields. These advances include the discovery of ether anesthesia by Morton and Long in 1847; the discovery of the principle of antisepsis by Joseph Listen in 1865–87; and application of rubber gloves introduced by Halstead. The use of blood transfusion, control of fluid in the body and use of drugs for various symptoms have also aided success in surgery.

Not many years have passed since the time when few surgeons dared to invade the interior of the abdomen.

Today every portion of the human body has been invaded successfully. The surgery of today is called physiological surgery and is aimed at restoring (відновлення) normal function of various organs and tissues when these functions have failed.

Exercise 2. Make up 6 questions based on the text.

Exercise 3. Make up a dialog.
You are a surgeon. You go on your morning round.
Speak with the bed patient. Use the following instruction.

Introduction

1. Good morning (afternoon, evening)! (How are you today? How are your spirits?)
2. Would you like a private room or a general ward? (on admission)

Complaints

1. How are you feeling today? (How do you feel at present? Oh, I see you are better today. What are your complaints?)
2. Do you have any feeling of nausea (vomiting, etc.) this morning? (this afternoon, this evening) (Do you feel sick (vomiting, etc.) Nausea (vomiting, headache, pains in the heart, etc.)?)
3. How did you sleep? (Did you sleep all night? Did you wake up with pain? Were there any nightmares (any bad dreams)?)
4. Do you have a good (bad) appetite now? (How do you eat? Do you eat with pleasure?)
5. What stool (discharge) do you have? (Do you have a regular stool?)
6. Did you experience any pain while moving your bowels (passing water)? Did you feel any pain in the lavatory? Did you have pain in moving bowels (passing water)?)
7. Your heart (stomach, liver, etc.) still troubles you, doesn't it? (What about your heart (stomach, etc.)? Does your heart (stomach, etc.) trouble you now?)
8. Are there any other complaints or not? (Do you have any other complaints? Other complaints?)
9. Let me look at the temperature chart. (What temperature do you have today?)

Physical Examinations

1. Will you lie still (sit up), please? (Sit quietly, please.)
2. Let me feel your pulse.
3. Just remove your undershirt, will you? (Take off your undershirt, please.)
4. Try to breathe deeper, please. (Breathe deeply, please. Breathe, please.)
5. Lie face down (on your side), will you?
6. Hold your breath, will you? (Don't breathe, please.)
7. Breathe in (out), please. (Take a deep breath!)
8. I'm going to palpate you. (Let me palpate you. I'll check your liver.)
9. Would you mind relaxing your abdomen? More, please. (Relax your belly, please).
10. Would you try to stretch your hand (leg)? (Stretch your hand (leg) like I do it).
11. Look up (down), will you? (Look up (down), please. Look up (down).).
12. It hurts you, doesn't it? (Is this painful?)
13. The pain radiates over the (entire) left arm (leg), doesn't it?
14. Can you feel (taste, smell, hear, see, etc.) that?
15. I'd like to measure your blood pressure. (Let me measure your blood pressure).
16. Your blood pressure (skin, head, heart, etc.) is much better today.
17. You follow all my instructions, don't you? (Do you follow all my instructions? Do you do as I ordered?)

Prescriptions and Instructions

1. Go on taking the same drugs. Take the drugs regularly. Have the pills (tablets, etc.).
2. Try to sleep more, will you? (Sleep more! Don't walk much! Stay in bed most of the time.)
3. You will have to collect your urine (stool, etc.). You must collect your urine (sputum, etc.).
4. I'll prescribe some medicine for your headache (heart, etc.). (I'll prescribe some tablets (pills, etc.) for you. The nurse will give you an injection to relieve the pain.)
5. We must perform some major (minor) operation. (You should undergo some operation.)
6. Will you sign this consent for the operation, please? (Sign this consent for the operation, please.)
7. If you refuse to let us operate (treat you), you must sign this statement. (If you are against our advice, sign, please.)
8. I recommend you to abstain from smoking. (I advise you to give up smoking. No smoking now.)
9. Try not to have heavy food. (Light food is advisable for you. No fatty food.)
10. Be quiet. Don't worry. If you follow all my instructions, you'll recover soon (feel better, be well.)

LESSON THIRTY

I	**Speaking**	Work of a Laboratory Assistant
II	**Grammar**	Неозначені займенники і прислівники, похідні від ***some, any, no, every*** (§83)
	Suffixes	(n.) -dom, -hood
	Prefixes	dis-, re-, mis-
III	**Independent Work**	Red Cross

I. Speaking: Work of a Laboratory Assistant

Exercise 1. Read the words and word combinations paying attention to their pronunciation.

a) Scalpel, scissors, wound, clip, pincette, inevitability, to convince, to sterilize, drum, to recover;

b) Surgical needle, staffed bed, operating theater, suture material, equipment and instruments, the rules of aseptics, respiration of a patient, artificial respiration, blood circulation, to narcotize, to fall asleep, to perform an operation, to introduce a fresh gauze drain, to test heart.

Exercise 2. Read and learn the following words.

test tube – пробірка
flask – колба
glass – склянка
measuring glass – мензурка
glass cap – скляна кришка
pipette – піпетка
vessel – посудина
cylinder – циліндр
centigrade scale – стоградусна шкала
record – записувати; реєструвати
findings – дані
jar – банка
heat – нагрівати
label – ярлик; етикетка
slide – предметне скло
culture – культура
moisten – зволожувати
cover slip – покривне скло
inoculating needle – голка для щеплення
rack – штатив
ring stand – кільцевий штатив
report book – щоденник; звітний журнал
title – назва
object – об'єкт; предмет
description – опис
conclusion – висновок
balancer – вирівнювач, стабілізатор
solution – розчин

Exercise 3. Read and translate the following sentences.

1. Work in the laboratory requires cleanliness. 2. It is recommend to close glass bottles with glass caps. 3. When students come to the laboratory, they should put on white gowns and thoroughly wash their hands. 4. In the laboratory we can see bottles with distilled water. 5. Glass vessels are placed on the shelves and racks.

Exercise 4. Make up questions to the words in bold type.

1. Students thoroughly wash their hands **with running water**. 2. The room for weighing is equipped **with a set of balances**. 3. **Near each table** in the laboratory there should be a lamp.

4. The air in the laboratory is **well** ventilated. 5. Students carry out various experiments working **with different chemical substances**. 6. Glassware for general use includes **test tubes, funnels, etc**. 7. The laboratory is equipped **with long tables**.

Exercise 5. Fill in the blanks with the words given below.

1. Laboratory assistants carry out ... complex analysis. 2. There are ... laboratory vessels for the determination of blood or urine tests. 3. Substances may have a strong and ... odor. 4. The clinical laboratory consists of several ... rooms. 5. When we enter the laboratory, we see ... tables with glassware on them. 6. The ... equipment consists of some apparatuses which are used to heat solutions, distil water and measure temperature.

(*long, unpleasant, different, special, laboratory, various*)

Exercise 6. a) Read the Case Report Scheme according to which every patient must be registered in the hospital. Translate each point.

b) Pay attention to the sixth point. What does the information of this point deal with?

CASE REPORT SCHEME

1. Passport data, surname and initials, age, profession, date of admission.
2. Complaints.
3. Present history.
4. Past history (briefly).
5. Physical examination: inspection, palpation, percussion, auscultation.
6. Laboratory data: blood analyses, urinalyses, tests, biochemistry studies, stool ova or larvae of parasites[1] test, X-ray examination, ECG, BCG, PhCG, bacteriological studies, histological studies.
7. Provisional (initial) diagnosis: clinical diagnosis, final diagnosis (confirmed), presumptive diagnosis, establishment of diagnosis.
8. Treatment given.
9. Prognosis (instructions and prescriptions).

Notes:

[1]stool ova and larvae of parasites test – аналіз калу на яйця та личинки паразитів

Exercise 7. Read the text, title it, answer the question: what thermometer should one better use to conduct scientific research?

The simplest and most common of all is a liquid thermometer. Mercury is a particularly suitable liquid because of its high boiling point – 357.25°C, and its low solidifying point – 39°C. The mercury thermometer is more accurate than the alcohol one.

Thermometers are supplied with a scale. A. Celsius (1701–1744) proposed a scale on which the melting point and boiling point of water were taken as the limits. These points were taken as 0° and 100° respectively. This is now known as the centigrade scale and is universally used in scientific work.

There are other scales in use: the scale introduced by D. Fahrenheit (1686–1736), the scale introduced by R. Reaumur (1683–1757), and the scale introduced by Kelvin (1824–1907) – absolute scale. They are used in special analyses.

Notes:
mercury – ртуть
boiling point – точка кипіння
accurate – точний
melting point – точка плавлення
scale – шкала

Exercise 8. Read the text and retell it.

Work of a Laboratory Assistant

If a person consults a doctor, he must undergo different tests: blood analyses, urinalyses, biochemistry studies, stool ova or larvae of parasities test, bacteriological studies, histological studies, etc.

All these tests are performed by a laboratory assistant.

The laboratory assistant must remember that the bacteria with which he is working can produce a disease. So he must be very careful when he works with cultures, slides and all the material that may be in contact with living microorganisms. That's why he must remember the following rules:

1. Microscope slides and cover slips must be put into jars with disinfectant solution.
2. Don't moisten labels with the tongue.
3. Don't eat, drink or smoke in the laboratory.
4. Heat inoculating needles in the flame until red hot for sterilization. Do it before and after use.
5. Keep test tubes with cultures in test tube racks.

The laboratory is equipped with different apparatuses and instruments. There are microscopes, analytical balances, distillators for obtaining distilled water as the running water contains various impurities, burners to heat solutions and thermometers.

The apparatuses necessary for carrying out analyses are clamped to ring stands. When working in the laboratory, a laboratory assistant should put on a white gown and thoroughly wash his hands in running water before work and after it.

A laboratory assistant must write down all the work carried out in the laboratory into the laboratory report book. All the observations during experiments must be written down into this book in the following form:

1. Title of the experiment and the date.
2. The object of the experiment.
3. Description of the methods used.
4. The names and description of organisms.
5. The results.
6. The conclusion of the results.

Exercise 9. Answer the following questions.

1. What are the aims of the clinical laboratory?
2. What are the duties of a laboratory assistant?
3. What is the laboratory equipped with?
4. What can you say about the report book?

Exercise 10. Name the rules, which must be followed by a laboratory assistant.

Exercise 11. Choose one of the dialogs below. Act it out with your fellow student.

Pain in the Leg

D: Next, please.
P: Good morning, doctor.
D: Good morning, sit down, please.
P: Thank you.
D: What's your name?
P: My name is...
D: How old are you?
P: I'm...
D: Where do you live?
P: I live in...
D: What is your occupation?
P: I am...
D: What's wrong with your leg?
P: I fell down on the skating rink and hurt my right leg badly.
D: Take your shoe off, I'll examine your foot.
P: My foot isn't broken, I have no swelling on it. But, you see, it is dark blue.
D: Yes, it's a bad bruise. You must apply a warm compress on your foot and stay in bed for two or three days.
P: Can I walk and do something about the house?
D: No, of course not. You must take care of your leg. Stay in bed.
P: Will you give me a certificate?
D: Yes, see you on Monday. Good-bye.
P: Thanks. Good-bye.

Your Arm Is out of Joint

P: Good morning, doctor!
D: Good morning. Sit down, please.
P: My name is...
D: What is your age?
P: I am...
D: Where do you live?
P: I live in...
D: What is your occupation?
P: I am a driver at a brick factory.
D: What's happened?
P: I have a bad pain in my left arm. Look at it!
D: I shall examine you. Put your arm on the table. Let me see... Do you feel pain here?
P: No.
D: Here?
P: No, no, a little higher.
D: Here? It may be out of joint.

P: The severe pain's in this place.
D: Your arm must be X-rayed as soon as possible.
P: Do you think it's a fracture?
D: No, I'll tell you after your arm is examined. Let's hope for the best. Here is the paper.
P: What's this?
D: A referral to the X-ray department.
P: May I go?
D: Yes, see you soon.
P: Thanks, doctor.

Leg Fracture

D: Next, please!
P: Good morning, doctor.
D: Good morning, sit down, please. What's your name?
P: My full name is…
D: Your age?
P: …
D: Address?
P: …
D: What's your occupation?
P: …
D: What's wrong with you?
P: My left leg is broken!
D: Put your trousers down. I'll examine the leg.
P: I can't move it.
D: Lay it here, help yourself with the arms. I'll help you.
P: I have a very bad pain here.
D: Here? (Presses.)
P: Ah! The pain becomes more severe, when you press the place.
D: Yes, it may be a fracture, a closed fracture. I must see X-rays of the fracture, and only after that I'll be able to put your leg in plaster cast.
P: Shall I ever go on my leg?
D: Yes, of course, in some four or five weeks. You must stay in your bed during this period.
P: Shall I be transported to the X-ray department?
D: Yes, of course.
P: Thank you.

A Dog Bit Me

P: Oh doctor! Help me, help! (Runs into the doctor's office.)
D: Please calm down. Take a sit. What's your name?
P: My name is…
D: How old are you?
P: I'm….
D: Are you married?

P: Yes, I have a husband and two children.
D: Where do you live?
P: I live in...
D: What's you profession?
P: I am a ... at a ...
D: Show me your wound.
P: Here it is. A dog bit me.
D: Let me see... It is deep and dirty. When did it happen?
P: It happened an hour ago.
D: Does it hurt you?
P: Yes, I have a bad pain in my arm.
D: Wait a minute. The nurse will make you an injection.
P: Will you put stitches in my wound?
D: Be calm. Don't worry. Everything will be all right. You will not feel any pain. Put your hand here.
P: I'm afraid. Oh! Ah! (The doctor processes the wound.)
D: That's right. It is ready.
P: Thank you, doctor. What must I do now?
D: Now you have to go to the dressing room, where the nurse will make you an injection.
P: Thanks, doctor. Good-bye.

II. Grammar Exercises

Exercise 1. Put in articles where necessary.

1. On ... 10th of August my brother was operated on for ... appendicitis. ... postoperative course of ... disease was uneventful and on ... 14th postoperative day he was discharged from ... hospital. 2. During ... operation ... 500 ml of ... antibiotics were introduced into ... abdominal cavity and ... patient was transfused ... preserved blood. 3. Before ... operation ... patient Smirnov was given intratracheal anesthesia. 4. When I recovered my consciousness, I felt ... unbearable pain in ... lower part of ... stomach. 5. In ...course of ... operation ... abdominal cavity was cleansed from ... food mass and ... turbid exudates. 6. ... Surgeon Belov and his assistants were getting ready for ... operation in ... scrub room. 7. ... muscular tension is ... symptom of ... bad pain in ... stomach. 8. ... presence of ... free gas in ... abdominal cavity under ... cupula of ... diaphragm suggest ... pathologic process. 9. ... scalpel, ... pincers and ... clamps are ... most necessary surgical instruments.

Exercise 2. Name the tense and voice of the verbs and translate the sentences.

1. These scientists have taken the lead in the solution of this problem. 2. They are studying many questions of organ and tissue grafting. 3. Research is being conducted on grafting of the vessels, skin, bones, etc. 4. Neurosurgery, one of the youngest branches of medicine, has greatly advanced in scientific investigations. 5. Over 24,000 major operations have been performed at this institute. 6. Neurosurgical operations are performed with practically no loss of blood.

Exercise 3. Name the parts of speech of the following words. Mind the suffixes and prefixes.

- pain, painful, painless
- depend, dependant, dependence, independent
- child, children, childhood
- differ, difference, different, differently
- mother, motherhood, motherless, motherly
- frequent, frequently, frequency
- brother, brotherhood, brotherly
- effect, effective, effectiveness, aftereffect

Exercise 4. The suffixes *-dom, -ness* convey abstract meaning of nouns derived from adjectives. Form nouns adding the suffixes *-dom, -ness*, translate the words.

Free, king, kind, happy, ill, black, dark, fit, ready, weak, sick.

Exercise 5. Prefixes *re-, dis-, mis-*.

re- вказує на повторну дію:

to write – писати	to rewrite – переписати
to read – читати	to reread – перечитати

dis- вказує на протилежне значення:

to like – любити	to dislike – не любити
order – порядок	disorder – безлад

mis- із значенням "неправильно":

to inform – інформувати	to misinform – неправильно інформувати
to understand – зрозуміти	to misunderstand – неправильно зрозуміти

Make up words and translate them:

dis-: like, appear, appearance, continue, charge;
mis-: take, inform, lead, lay, place, print, rule;
re-: act, action, agent, collect, form, turn, member.

Exercise 6. Make up questions and answer them according to the model.

Model: *thermometer – to take temperature*
What is a thermometer used for?
A thermometer is used for taking temperature.

Burner – to heat solutions; distillator – to distil water or other liquids; vessel – to keep substances; pipette – to transfer liquids.

Exercise 7. Translate into Ukrainian.

To rebuild the bridge; to reread the text; to reconstruct some houses; to rewrite the task; to retell the story; to disagree with information; to divide into groups; to disappear in the darkness; to disapprove the decision; to mislead some men; to mishear the sentence; to misunderstand the translation.

Exercise 8. Put the sentences into interrogative and negative forms, make necessary changes.

1. Someone is waiting for you.
2. There is something interesting in the paper.
3. Something can be done to help you.
4. Somebody knocked at the door.

Exercise 9. Fill in the blanks with the necessary indefinite pronouns and adverbs.

1. Can ... help me to make a dressing?
2. I'll be very glad if you invite ... else to our meeting.
3. ... of us could answer this question.
4. ... must be done to save the child's life.
5. If you don't find ... at home, wait for me till seven o'clock in the evening.
6. We got home late and ... went to bed at once.
7. Is ... clear to you or shall I do it?
8. Ask ... else. I know ... about it, so I can't tell you ...

Exercise 10. Translate the sentences into English.

1. Якщо хто-небудь запізниться, ми не будемо чекати. 2. Я тут нічого не бачу. Увімкни світло, тут десь є вимикач. 3. Мені потрібно купити щось на вечерю. 4. Тебе хтось чекає у поліклініці. 5. Вже пізно що-небудь робити. 6. Він нікого не боїться. 7. Хірург десь у відділенні зараз. Хто-небудь є в операційній? 8. Що ще можна зробити, щоб урятувати цього пацієнта ?

III. Independent Work: Red Cross

Exercise 1. Read the text, translate it, answer the questions.

Red Cross

The international movement of Red Cross and Red Crescent appeared due to the initiative of Henry Dunant.

In 1863 in Jeneve representatives from 16 countries adopted 10 resolutions defining the tasks and methods of the work of Comittees assisting the wounded. It was the beginning of the world-wide movement of the Red Cross. The emblem of the movement is the Red Cross, or the Red Crescent in the Islamic world, on the white background. Its basic principles are: humanity, impartiality, unity, neutrality, independence, voluntariness, and universality.

Nowadays this organization exists in 150 countries all over the world. It has many various tasks:

– caring for the wounded during wars;
– assisting people with physical or mental disability;
– visiting the imprisoned in jails;
– supporting victims of earthquakes;
– reunion of families;

– deference of people on occupied territories;
– training personnel in hygiene and first aid;
– organization of donors' help.
The Red Cross is aimed to help all those suffering without any discrimination.

Exercise 2. Answer the questions.
1) Is the Red Cross an international organization?
2) Are you a member of the Red Cross organization?
3) What is your contribution into the activity of the local Red Cross organization?

LESSON THIRTY-ONE

I	**Speaking**	Teeth
II	**Grammar**	1. Ступені порівняння прислівників (§84). 2. Порівняльні конструкції ***as...as, not so ...as*** (§85)
	Suffixes	(n.) -ment, -ship
III	**Independent Work**	What Happens to a Hamburger (Part 1)

I. Speaking: Teeth

Exercise 1. Phonetic reading: read the words, pay attention to the pronunciation.
Special, laboratory, ventilate, group, analysis, cylinder, pipette, accurate, synthetic, natural, centimeter, cubic, experiment, apparatus, instrument, thermometer, alcohol, limit, reagent, paraffin, temperature, solution.

Exercise 2. Read and learn the new words.

tooth (pl. teeth) – зуб
crown – коронка (зуба)
neck – шийка (зуба)
gums – ясна
root – корінь (зуба)
enamel – емаль
dentine – дентин
pulp – пульпа
root canal – канал кореня зуба
bite – кусати
chew, masticate – жувати
teething – прорізування (зубів)
incisor – різець
cuspid, canine tooth, eye-tooth – ікло
molar – молярний, кутній зуб
wisdom tooth – зуб мудрості
digestion – травлення
jaw – щелепа
set – ряд зубів
covering – покриття

Exercise 3. Learn the following word combinations by heart.
bony organ – кістковий орган
protective covering – захисне покриття
outer and inner tissue – зовнішня і внутрішня тканина
feeding and growing – живлення і ріст

temporary teeth – молочні зуби
permanent teeth – постійні зуби
adult person – доросла людина
see a dentist – консультуватися в зубного лікаря

Exercise 4. Say in English.

Верхня щелепа, нижня щелепа, молочні зуби, постійні зуби, кутній, різець, ікло, пульпа, верхнє покриття – це емаль, не кусай горіхи зубами, корінь зуба, різна форма коронок, дві зміни зубів, зуб мудрості.

Exercise 5. Put in the necessary prepositions.

1. The teeth are ... the upper and lower jaws. 2. ... the time the child is two he has twenty teeth. 3. The man has two sets ... teeth. 4. The teeth are very important bony organs ... our digestion. 5. The teeth are divided ... four groups.

(of, into, for, by, in)

Exercise 6. Read the text and retell it.

Teeth

Teeth are very important bony organs for our digestion. By means of them we bite and masticate food.

A tooth consists of three parts: the root, the neck and the crown. The physical support of each tooth is the alveolar bone. The tooth has a hard outer covering which surrounds the central pulp cavity. This protective covering consists of a very firm hard substance, enamel. The inner tissue of the tooth is dentine. It is a softer and less resistant material than the enamel. When the enamel is broken, the dentine soon suffers.

There are blood vessels and nerves in our teeth by means of which the feeding and growing of them take place.

Depending on the form and function our teeth are divided into four groups. They are incisors, cuspids, bicuspids and molars.

The teeth have various forms of the crown. They may be one-root, two-root and three-root teeth.

During our life we have two sets of teeth. The first teething begins at 6 months and lasts till the age of two and a half years. Little children have 20 temporary teeth. These teeth are not strong and their life time is only several years.

The second teething begins at 6 years and is over by 24. An adult person has 32 permanent teeth. The clinical formula of teeth is as follows: 2 incisors, 1 cuspid, 2 bicuspids and 3 molars.

Exercise 7. Answer the questions.

1. What do we do by means of our teeth? 2. What parts does a tooth consist of? 3. What is the physical support of each tooth? 4. What does the protective covering consist of? 5. What is the inner tissue of the tooth? 6. What function do blood vessels and nerves fulfill in our teeth?

Exercise 8. Read the text about mouth hygiene.

You must keep your mouth, gums and teeth in healthy condition. Brush your gums and teeth every morning and rinse your mouth cavity after every meal. Don't use metal things to clean your teeth, because it'll ruin the teeth enamel. Examine your teeth twice a year. Use food which you must chew and newer crack nuts with teeth.

Notes:

brush – щітка; чистити
meal – їжа (прийом їжі)
food – їжа (продукти харчування)
twice – двічі
crack – розколювати, кусати, розкушувати

Exercise 9. Ask your friend if:

– he has healthy teeth;
– he brushes his teeth and gums only in the morning;
– he uses tooth paste for brushing;
– he often goes to the dentist.

Exercise 10. Read and act out the dialogs.

1

Tom: I have a bad toothache.
Nick: I'd have the aching tooth taken out if it were mine.
Tom: If it were yours, I would too!

2

Mother: We shall go to the dentist with you today, Tom.
Tom: Let's go next week, Mummy. There is nothing the matter with my teeth.
Mother: Never put off till tomorrow what you can do today!
Tom: I don't like to go to dentists. I'm afraid of them.

3

Dentist: Tom, can you open your mouth as wide as your eyes?

4

Tom: Hey, what's the matter with you?
Nick: I've got toothache.
Tom: Why don't you go to the dentist then?
Nick: I'm afraid to have teeth out, it hurts!

Exercise 11. Speaking situations.

1. You are a dental nurse. You visit schoolchildren at school. Tell them about the importance of having healthy teeth and how to keep them healthy for a long time.

2. Tell your group about teeth: the number of sets, teeth shape, groups, structure (use the text "Teeth").

3. Tell your fellow students about your last visit to the dentist.

4. You are in an English-speaking country. Suddenly your tooth starts to ache. What will you do? What will you say?

II. Grammar Exercises

Exercise 1. Put the verbs in the correct form. Translate the sentences.

1. Last year we (to study) inorganic chemistry and biology. 2. They (to graduate) from the institute in five years. 3. Students (to learn) theoretical subjects with great interest. 4. At the end of the second year they (to have) practice at the hospital where they got acquainted with the work of nurses. 5. I usually (to prepare) my homework in the reading hall of the library. 6. We (to take) our examination in the foreign language during the summer session.

Exercise 2. Translate the following words with the suffixes *-ment, -ship* using the dictionary.

Friendship, development, leadership, assessment, partnership, movement, requirement, relationship, authorship, management, championship, measurement.

Exercise 3. Translate and form degrees of comparison of the adverbs.

a) Близько, рано, пізно, мало, скоро, повільно.

b) Добре, погано, рідко, гарно, зручно.

Exercise 4. Name the adjectives or adverbs in the positive degree.

Earliest, worse, most, best, largest, shorter, busier, less, better, least, nicer, longest, hottest, later, worst, quicker, slowest.

Exercise 5. Put the words in brackets in the correct degree of comparison.

1. Petrov is the (good) student in the group. 2. The (long) examination session is in summer. 3. The street our college is situated in is (beautiful) in our town. 4. My friend got a (high) mark in anatomy examination than me. 5. Our first-year students study (bad) than senior students. 6. Pharmacognosy is as (difficult) as botany. 7. Microbiology is not so (easy) as you say. 8. It is necessary to work (much) to become a good nurse.

Exercise 6. Translate the sentences into English.

1. Говоріть, будь ласка, голосніше, я вас погано чую. 2. Ти написав контрольну гірше за всіх. 3. Вона зможе краще вчитися, якщо більше часу приділятиме практиці. 4. Завтра ми встанемо раніше, щоб прийти до зубного лікаря вчасно. 5. Мене запитали, яка професія мені подобається найбільшу і чому. 6. Львів такий же великий, як і Одеса? 7. Сьогодні погода така ж гарна, як і вчора. 8. Ця кімната не така зручна, як кабінет дантиста.

III. Independent Work: What Happens to a Hamburger

Exercise 1. Read the first part of the text and translate it, write down new words in your vocabulary.

What Happens to a Hamburger

(Part I)

I like to eat. I like bread and pears and celery. I like carrots, and chicken, and potatoes, and hamburgers. I like orange juice, and milk, and tomato juice. What do you like? Good food

makes you strong and healthy. It gives you energy and helps you grow. Your body uses food in different ways. It uses some kinds of food to make strong bones and hard teeth. It turns other food into solid muscles. It uses some of the food you eat to keep you warm.

Before your body can do these things, it had to change the food. Solid foods like hamburgers and potatoes have to be changed into liquids. Liquids like milk and orange juice have to be changed, too.

When you change the food you eat, you are digesting it. Put two lumps of sugar in an empty glass. Take a wooden spoon and pound the lumps with the handle. Pound them until they are broken up into powder. Now pour some water in the glass and stir. Keep stirring until the sugar powder has disappeared. Take a sip of the water. Can you taste the sugar? The sugar has disappeared, but it's still there. It has broken up into millions of tiny pieces. Your eye cannot see them, but your tongue can taste them.

When you digest your food, you break it up into millions of very tiny pieces. You start to do this as you take a bite to eat. Digestion begins in your mouth when you chew. You break up the food with your teeth.

Something else helps to break up the food in your mouth. It is a fluid. Some people call it spit. Its correct name is saliva.

Whenever you take a bite of food, saliva pours into your mouth. You say your mouth is watering. Saliva comes from small glands in your cheeks and under your tongue.

Sometimes saliva pours into your mouth even before you take a bite. The smell of food will start it. Take a good sniff of a box of chocolates. Sniff a jar of pickles. What other kinds of food make your mouth water?

After you have chewed your food, you swallow it. Your epiglottis closes. It is a door that keeps food from going into your lungs. Your throat squeezes together when you swallow. It pushes the food down into your esophagus. Another name for esophagus is gullet. Your gullet is a tube that leads from the back of your mouth to your stomach. There are muscles in your gullet that squeeze together. They push food into your stomach.

(To be continued.)

Notes:

celery – селера
solid – міцний
muscle – мускул
liquid – рідина
to digest – перетравлювати
lump – шматок
to pound – товкти; бити; калатати
powder – порошок
to pour – наливати
to stir – розмішувати
sip – ковток
to taste – пробувати на смак
tiny – крихітний
fluid – рідина
spit – слина
your mouth is watering – у тебе слинка тече
gland – залоза
sniff – вдихання носом
jar – банка
pickles – соління
to swallow – ковтати
epiglottis – надгортанник

Exercise 2. Make a plan of this part of the text.

Exercise 3. Ask questions based on each point of your plan.

Exercise 4. Answer the questions.
– What happens with food in your mouth?
– Where does food go from your mouth?

Lesson Thirty-Two

I	**Speaking**	At the Dentist's. Dental Instruments
II	**Grammar**	1. Іменникові та дієслівні безособові речення (§86). 2. Слова-замінники (§87)
	Suffixes	(adj.) -ous, -ish
III	**Independent Work**	What Happens to a Hamburger (Part II)

I. Speaking: At the Dentist's. Dental Instruments

Exercise 1. Phonetic reading: read the following words, pay attention to pronunciation.

Sterilization, refrigerator, galenical, internal, external, injection, disinfectant, ampule, glucose, camphor, intramuscular, intravenous, personnel, control, manufacture, dose, official, company, metabolism, commend, patient, capsule, tablet, signature, amulet, talisman.

Exercise 2. Learn the following words.

dentist – дантист, зубний лікар
toothache – зубний біль
dental nurse – стоматологічна медсестра
decayed – зруйнований
filling – пломба
to fill – пломбувати
to extract – видаляти (зуб)
dental instruments – інструменти для лікування зубів
mirror – дзеркало
tweezers – пінцет
probe – зонд
drill – бур
spittoon – плювальниця
saliva ejector – відсмоктувач слини
dental forceps – зуболікувальні щипці
hurt – боліти; турбувати

Exercise 3. Learn the following word combinations by heart.

to be afraid of smth – боятися чогось
to put in a filling – запломбувати зуб
your tooth is working loose – ваш зуб хитається
to give smb an injection – робити ін'єкцію
to spit out – сплюнути
to put arsenic – поставити миш'як
temporary filling – тимчасова пломба
permanent filling – постійна пломба
decayed tooth – зруйнований зуб
infected tooth – хворий зуб
tooth is far gone – зуб дуже зруйнований
aching pain – сильний біль

Exercise 4. Find Ukrainian equivalents of the words in the left column.

toothache	полоскати
to fill	пломбувати
to extract	щипці
to rinse	постійні зуби
to spit out	тимчасові зуби
jaw	бур; свердло
permanent teeth	щелепа
temporary teeth	зубний біль
forceps	дзеркало
drill	зруйнований
probe	зонд
mirror	видалити
decayed	сплюнути

Exercise 5. Translate into English.

У мене болить зуб, відкрийте рот, у вас зруйнований зуб, він дуже зруйнований, я запломбую ваш зуб, я поставлю тимчасову пломбу, постійна пломба, цей зуб хитається, видалити зуб, не турбуйтесь, не бійтесь, я зроблю вам ін'єкцію, цей зуб непокоїть мене.

Exercise 6. Complete the sentences filling in the words below.

1. I have a bad … . 2. He … to go to the dentist. 3. She has a … in this tooth. 4. The doctor put … in my tooth. 5. She extracted my tooth … .

(*painlessly, be afraid, a temporary filling, pain, toothache*)

Exercise 7. Act out the dialogs.

a) You are a doctor:

Dentist: Що з вами трапилось?
Patient: I have a bad toothache.
Dentist: Сідайте, будь ласка. Відкрийте рот.
Patient: I have a pain in this tooth.
Dentist: Сьогодні я поставлю вам лише тимчасову пломбу. Приходьте через три дні.

b) You are an interpreter:

D: What's wrong with you, my dear?
P: У мене знову болить цей зуб.
D: Open your mouth, please. Does this tooth hurt you?
P: Так, цей. Я не можу спати вже дві ночі.
D: This tooth is far gone. I must extract it.
P: Ох, лікарю, я дуже боюся.
D: Don't worry, I'll give you an injection, you won't feel any pain.

Exercise 8. Read the dialog.

Stomatologist: What do you complain of? Are you in pain?
Patient: Yes, I have a toothache.

S: Let me have a look at your infected tooth. Open your mouth. What tooth troubles you?

P: In the upper jaw on the right.

S: What kind of pain is there in your tooth?

P: I have a terrible toothache.

S: When did this ache first appear?

P: It appeared two days ago.

S: When does it ache more frequently?

P: Of course, at night.

S: Do you feel this ache from cold or hot water?

P: I feel it from cold water.

S: There is a cavity here but this tooth is not far gone. It is possible to treat it. I have to clean this cavity and put arsenic in this tooth.

P: Oh, doctor. I can't stand the drill.

S: It's necessary to do it. I'll treat your infected tooth. Sit calmly, please, and open your mouth wider. Do you feel any ache now?

P: Yes, doctor, I do feel.

S: I have cleaned the cavity and put arsenic. If the tooth is quite all right and you feel no ache tomorrow, I'll put a temporary filling and then a permanent one. Now let me examine your other teeth. Most of your teeth are quite all right. But one is very bad. It is far gone. It's necessary to extract it. You must go to the surgical room to do it.

Exercise 9. Do the following exercises.

a) Read the questions used by a stomatologist at the beginning of a reception:

1. What do you complain of?
2. What tooth troubles you?
3. When did the ache first appear?

b) Ask some questions on the following sentences:

1. He complains of his toothache. (What … of?)
2. His infected tooth troubled him last night. (What tooth ...?)
3. His toothache first appeared yesterday. (When ...?)

c) Make a short dialog using the phrases:

На що ви скаржитесь? Який зуб непокоїть вас? На що скаржиться ваш друг? Коли він уперше відчув біль? У мене болить зуб. На нижній щелепі, справа. У нього теж болить зуб. Учора вночі.

Exercise 10. a) Read stomatologist's questions about the kind of pain.

1.What kind of pain is there in your tooth? 2. Do you feel this ache from cold or hot water? 3. Is your ache more frequent in the daytime or at night?

b) Fill in the gaps with the necessary words and word combinations.

1. Did you feel … from cold or … water? 2. Was your ache more … during the day … or at …? 3. What kind of pain is … in your …?

c) Make up patient's answers using the given words and word combinations.

1. Hot water, from, feel, I, my ache. 2. At night, frequent, more, was, my toothache. 3. An aching pain, there is, in my tooth. 4. Appeared, it, ago, some, days.

Exercise 11. a) Read stomatologist's conclusions.

1. This tooth is all right. It is unnecessary to treat it. 2. That tooth is not far gone. It is possible to treat it and put a filling. It is necessary to clean this cavity. 3. That tooth is far gone (decayed). It's necessary to extract it.

b) Fill in the gaps with the necessary words.

1. This tooth ... not ... gone. It ... possible to ... it. 2. That tooth ... unnecessary to ... 3. That tooth ... too bad. It's ... to extract it. 4. These teeth ... all right. They are unnecessary to ... .

c) Translate the following sentences.

1. Ці зуби не дуже зруйновані. Їх можна лікувати. 2. Зараз треба почистити цей зуб і поставити тимчасову пломбу. 3. Цей зуб дуже зруйнований. Його необхідно видалити. Лікувати його неможливо. 4. Ці зуби хороші. Вони не потребують лікування.

Exercise 12. a) Read how a stomatologist comments his actions.

1. I'll treat your infected tooth. 2. I'll put a temporary (permanent) filling. 3. I have cleaned the cavity. 4. I have put arsenic in this tooth. 5. I have to clean this tooth.

b) Put the verbs in brackets into the correct form.

1. Tomorrow I (to put) a temporary filling in this tooth. 2. Today I (to clean) this tooth and (to put) arsenic. 3. Yesterday my assistant (to clean) your teeth. 4. We (to treat) your teeth next week. 5. Every day my assistant (to help) me.

Exercise 13. Communication situations.

I. You are a stomatologist and receive your patients. Talk to one of them keeping the following consistency.

a) 1. His first name, surname. 2. His age. 3. His profession. 4. What persons his family consists of?

b) 1. What he complains of. 2. What tooth troubles him. 3. What kind of pain he has. 4. When the aching pain first appeared. 5. When this ache is more acute. 6. If this ache appears from hot or cold water. 7. When the temporary filling was put.

II. You are examining your patient's oral cavity. Ask the patient to perform the following.

1. To open his mouth. 2. To show his aching (infected) tooth. 3. To show his other teeth.

III. You are treating an aching tooth.

a) Tell your patient that it is necessary to:

1. Clean the cavity of the tooth. 2. Put arsenic in this tooth. 3. Put in a temporary filling. 4. Put in a permanent filling.

b) Ask your patient:

1. To open his mouth wider. 2. To sit calmly. 3. To water his mouth. 4. To spit out. 5. To close his mouth.

Exercise 14. Read the text and translate it.

Dental Calculus

Dental calculus must be removed, otherwise the teeth quickly get spoiled. Tartar deepens the periodontal pocket where food particles accumulate and the mucus of microbe-saturated

dental deposit is trapped. One milligram of dental deposit from uncleaned teeth contains about 8 million different microorganisms. They include pathological ones that can cause gingivitis – inflammation of the gingival tissue. The gums begin to bleed and bad breath appears.

Tartar cannot be removed with needles, pins or other pointed objects, because the enamel is thus ruined, the gum is injured and the wound gets infected.

After the dental calculus is removed by a dentist, hygiene should be scrupulously observed, because tooth care and tartar formation are directly related: neglected teeth are often affected. The mouth must be rinsed after each meal. Eating green vegetables and fruit is beneficial "exercising" for teeth. Thorough chewing of the food helps to clean the oral cavity, improve gingival blood supply and strengthen the gums.

II. Grammar Exercises

Exercise 1. Group the words according to the parts of speech, mind suffixes; translate them.

English, prepared, orally, prescription, manufactured, prescribed, indicated, polish, indication, intravenously, usually, injection, impure, chemist, unprotected, administered, tradition, information, pharmacist, selected, independent, nonnarcotic, translation, dangerous, variously, feverish.

Exercise 2. Group the words according to their roots and translate them into Ukrainian.

Produce, effect, medicinal, manufacture, prescribe, dose, independent, production, effective, medicine, productive, manufactured, dependent, prescription, productivity, medical, effectively, prescribed, dosed, depend.

Exercise 3. Find the predicative and name its tense and voice.

1. The centigrade scale is universally used in scientific work. 2. The weighing room of the chemical laboratory is equipped with a set of balances. 3. Reagents for experiments will be supplied in various boxes and bottles. 4. Synthetic and natural substances are easily dissolved in alcohol. 5. His lectures on physical chemistry were listened to with great interest. 6. Mendeleev's Periodic Table was much spoken about in the second half of the nineteenth century. 7. Students are paid scolarship once a month. 8. The lecture was followed by an interesting discussion.

Exercise 4. Make the following sentences interrogative and negative.

1. It's always cold in January.
2. It was simple to translate this paper.
3. It was warm yesterday.
4. It'll be interesting for you to work at a hospital.
5. It'll be easy to find his brother.
6. It's difficult for him to operate five times a week.
7. It rains in autumn.
8. It rained all day long yesterday.
9. It's raining now.

10. It was raining at two o'clock yesterday.
11. It'll be raining very often soon.
12. It's going to rain.

Exercise 5. Change the underlined words with corresponding substitutions where it's possible.

1. This English text is too easy for me. Please give me a more difficult text.
2. My sister speaks English better than I speak it.
3. I don't like these pictures. They are too dark. I saw better pictures in a shop.
4. I think this operation will be easier than the last operation.
5. His work is more important than your work.
6. This case is less interesting than the case we discussed yesterday.

Exercise 6. Translate into English.

1. Зараз іще дуже рано обговорювати це питання. 2. Зима. Досить холодно. 3. Узимку важко вставати рано, тому що вранці ще темно. 4. Моя сестра знає німецьку й англійську, тому їй легко вивчати французьку. 5. Вам важко йти? Давайте візьмемо таксі. 6. Дощ уже йде? — Ні, але скоро піде. 7. Сьогодні вранці ще йшов сніг, а зараз іде дощ. 8. І не дивно, що мій брат так швидко одужав, — він дотримувався інструкцій лікаря.

III. Independent Work: What Happens to a Hamburger

What Happens to a Hamburger

(Part II)

Your stomach is a tube like your gullet. But there is a difference. Your stomach can stretch like a balloon. When you eat, your stomach stretches to hold the food. After you swallow your meal, your stomach closes at each end. The food cannot get out. The muscles begin to squeeze. The food is mashed and stirred together. Your stomach has fluids in it like the saliva in your mouth. They are called digestive fluids. They pour in from tiny glands in the sides of the stomach. The digestive fluids help to break the food up into smaller and smaller pieces.

Food stays in your stomach for several hours. Some kinds of food stay only about two hours. Other kinds stay longer. The food stays until all the lumps have been broken up. It is like a thick soup now. It is made of millions and millions of tiny pieces.

But digestion has just begun. The tiny pieces must be made even smaller. This happens in the intestines.

There are two intestines in your body – the small intestine and the large intestine. They are really one single long tube.

This tube is coiled up inside you like a pile of heavy rope. It is about twenty-one feet long.

Most of the tube is narrow and is called the small intestine. The last four or five feet of the tube are much bigger around. This part is called the large intestine.

The soupy food is squeezed into the small intestine from the stomach. Digestive fluids from the liver and pancreas are mixed with the food in the small intestine. These fluids break

the food up into very tiny pieces called molecules. Molecules are so small you cannot see them without a special microscope.

The food molecules pass into tiny blood and lymph vessels in the walls of the small intestine. They move into your blood. Then your blood carries them to every part of your body.

The part of the food that is not digested in the small intestine is squeezed into the large intestine. From here, water molecules pass into the bloodstream.

Your body cannot use all of the food you eat. The food it cannot use is stored in the large intestine. You get rid of the unused food when you go to the toilet.

In the morning you may eat scrambled eggs or cereal. You may drink orange juice or hot chocolate. In a few hours your body has digested the food. Then your blood begins to carry the tiny food molecules to your muscles to make them stronger, to your bones to make them harder, to every part of your body to give you energy and help you grow.

Notes:

to squeeze [skwi:z] стискатися
esophagus [i:'sɒfəgəs] стравохід (syn. gullet)
to stretch [stretʧ] розтягуватись
to mash [mæʃ] розминати
to coil up [kɔil] згортатися
pile [pail] купа
rope [rəʊp] мотузка
to store [stɔ:] зберігати
unused [ʌn'ju:zd] невикористаний
scrambled eggs ['skræmbld] яєчня-бовтанка
cereal ['siəriəl] (амер.) каша

Exercise 1. Write down all new words in your vocabulary.

Exercise 2. Make up questions based on the text.

Exercise 3. Describe the process of digestion.

LESSON THIRTY-THREE

I	**Speaking**	Medicines and Their Forms
II	**Grammar**	1. Дієслово у Present Perfect Continuous (§88). 2. Подвійні ступені порівняння (§89). 3. Винятки з правил про утворення ступенів порівняння
III	**Independent Work**	D.I. Mendeleev

I. Speaking: Medicines and Their Forms

Exercise 1. Phonetic reading: read the words of Latin or Greek origin; pay attention to their pronunciation; translate them.

History ['histəri], historical [his'tɒrikl], pharmacognosy [ˌfɑ:mə'kɒgnəzi], initiative [i'niʃiətiv], museum [mju:'ziəm], pharmacy ['fɑ:məsi], pharmaceutical [ˌfɑ:mə'sju:tikl], chemistry ['kemistri], chemical ['kemikl], chemist ['kemist], physics ['fiziks], physical ['fizikl], medicine ['medsin], medical ['medikl], microbiology [ˌmaikrəʊbai'ɒləʤi], lecture

[ˈlekʧə], pharmacology [ˌfɑ:məˈkɒlədʒi], toxicology [ˌtɒksiˈkɒlədʒi], laboratory [ləˈbɒrət(ə)ri], subject [ˈsʌbdʒikt], anatomy [əˈnætəmi], temperature [ˈtempriʧə], professor [prəˈfesə], institute [ˈinstitju:t], biology [baiˈɒlədʒi], substance [ˈsʌbstəns], organic [ɔ:ˈgænik], biological [ˌbaiəˈlɒdʒikl], academician [əˌkædəˈmiʃn], organize [ˈɔ:gənaiz], organization [ˌɔ:gənaiˈzeiʃn], technological [ˌteknəˈlɒdʒikl], technology [tekˈnɒlədʒi].

Exercise 2. Read and learn the following words.

powder [ˈpaʊdə] порошок
tablet [ˈtæblit] таблетка
dose [dəʊs] доза
dosage [ˈdəʊsiʤ] дозування
pill [pil] пілюля, пігулка
ointment [ˈɔintment] мазь
suppository [səˈpɒzitri] свічка
globule [ˈgləʊbjʊl] пілюля; крупинка
ampule [ˈæmpju:l] ампула
solution [səˈlu:ʃn] розчин
tincture [ˈtinkʧə] настійка
infusion [inˈfju:ʒn] настій
mixture [ˈmiksʧə] суміш
decoction [diˈkɒkʃn] відвар
drops [drɒps] краплі
medicine [ˈmedsin] ліки, медикамент
drug [drʌg] ліки, лікарський препарат; наркотик
medication [ˌmediˈkeiʃn] лікарський засіб
remedy [ˈremidi] засіб; ліки
poison [ˈpɔizn] отрута
signature [ˈsigniʧə] підпис; сігнатура
at the chemist's [ˈkemists] в аптеці

Exercise 3. Learn the following word combinations by heart.

a single dose – разова доза, на один прийом
a total dose – загальна доза
dosed drugs – дозовані ліки
drug administration – призначення/застосування ліків
drug action – дія ліків
overdosage of medicines – передозування ліків
healing ointment – лікувальна мазь
cough mixture – мікстура від кашлю
nasal drops – краплі в ніс
cod liver oil – риб'ячий жир
sleeping draught [drɑ:ft] снодійний засіб
adhesive plaster [ədˈhi:sivˈplɑ:stə] лейкопластир
doctor's prescription – рецепт (призначення) лікаря
teaspoonful (tablespoonful) – чайна (столова) ложка

Exercise 4. Complete the sentences with the words given below.

1. He often uses ... 2. She gave her son ... 3. I take these ... and ... three times a day. 4. She applies ... on his back. 5. The nurse makes ... 6. She has a weak heart and she's got ... at the chemist's.

(mustard plaster, injections, vitamins, cod liver oil, heart drops, tablets and powders)

Exercise 5. Say it in English.

Приймай ці порошки з молоком; ви повинні мати лейкопластир, бинт і розчин йоду вдома; я приймаю ці таблетки тричі на день; випий цю мікстуру ввечері; поклади мазь на рану, вона загоїть її; настої, відвари і настоянки; розчин глюкози в ампулах; передозування ліків – це отрута.

Exercise 6. Match the words; remember their Latin form.

ampule	порошок
pill	таблетка
suppository	мазь
decoction	свічка
infusion	крупинка
tincture	ампула
solution	настоянка
tablet	розчин
powder	настій
ointment	суміш
mixture	відвар
globule	краплі
drops	отрута
poison	ліки

Exercise 7. Read the text and retell it.

At the Chemist's

When you are ill, you consult a doctor. He prescribes you treatment and writes out a prescription. **To have all the prescriptions made up**[1] you have to go to the chemist's.

There are two departments in the chemist's: the department of medicines **right away**[2] and the department where drugs have to be ordered or the prescription department.

At the chemist's shop you can buy medicines of all kinds: tablets, powders, pills, solutions, tinctures, suppositories, ointments, cough mixtures, sleeping draught, nasal drops, cod liver oil, syringes, ampules with different solutions, vitamins, different medicines for external and internal use.

You can also get hot-water bottles, medicine droppers, bandages, bottles of iodine, ice bags, sponges, tooth pastes and toothbrushers, soap, mustard plasters and adhesive plasters and many other things which are quite necessary for medical care and nursing.

Notes:

[1] to have all prescriptions made up – отримати ліки, які призначив лікар

[2] right away – відразу, негайно

Exercise 8. Make up lists of three forms of medicines: solid, soft and liquid; use a dictionary; remember Latin names.

Exercise 9. Make up sentences using the following word combinations.

– to take a powder for ...
– to take a tablet three times a day
– to take a pill after (during, before) meal
– to put an ointment on ...
– to keep suppositories in a cool place
– to wash hands before using globules

– to keep ampules in a dark place
– to read doctor's instructions before giving a solution
– to shake a bottle with a mixture before use
– to take an infusion
– to give a decoction four times a day before meal
– to keep drops in a dark place
– to take twenty drops of a tincture
– to take a teaspoonful on an empty stomach
– to take a tablespoonful of ...
– to give a prescription
– to prescribe medicine (treatment)

Exercise 10. Read and act out the dialog.

Father: Doctor, when I came home, I found my little son asleep. At first that seemed normal, but when I entered the bathroom there was a bottle of my wife's sedative on the floor. I'm afraid the child took some of it.

Doctor: Do you know what kind of **sedative**[1] it was?

Father: No, doctor. I only know it was one of sedatives. Here it is.

Doctor: Well, it is better to do stomach **washing**[2]. Nurse, have everything ready for stomach washing.

Notes:

[1] sedative – заспокійливий засіб

[2] washing – промивання

Exercise 11. Communicative situations.

1. Describe the chemist's where you usually buy medicines.
2. Make up a dialog between a customer (покупець) and a chemist.
3. Give instructions for administration of any drugs.
4. You are not feeling quite well. You go to the chemist's and ask the chemist to give you some tablets.

II. Grammar Exercises

Exercise 1. Name the parts of speech of the following words, translate them without the dictionary.

accelerate – accelerator – acceleration
combine – combination
medicine – medical – medication
grade – gradual – gradually
prescribe – prescription
effect – effective – effectiveness

Exercise 2. Give degrees of comparison of the following adjectives and adverbs.

Handsome, nice, wonderful, sad, green, white, difficult, good, slow, bad, grey, small, little, black, useful, delicate, careful, thin, large, well, quickly.

Exercise 3. Give antonyms of the following words and word combinations.

The best, late, the strongest, older, the most difficult, taller, the widest, more unexpressive, the unhappiest, heavier, the best-known, nearer, the most comfortable, worse.

Exercise 4. Translate into English.

1. До мене приїхав у гості дядько. Це один із найдальших родичів з маминого боку. 2. Він ходить до бібліотеки дуже часто, частіше, ніж ти думаєш. 3. Чим швидше ти зробиш цю вправу, тим краще. 4. Їхати поїздом найзручніше, але це найповільніший вид транспорту. 5. Це найкращі ліки від болю в горлі.

Exercise 5. Find sentences in the Present Perfect Continuous Tenses.

1. Let's go to this chemist's. 2. I have been preparing my home task since he came here. 3. A hot-water bag is the last thing you need. 4. The nurse has been making injections for two hours. 5. She usually buys these heart drops. 6. He hasn't been prescribing the tablets so long, has he?

Exercise 6. Make the sentences interrogative and negative.

1. We have been choosing the best drugs since 10 o'clock. 2. My sister has been working in this chemist's for three years. 3. They have been talking about new nasal drops for an hour already. 4. We have been studying grammar rules for several years. 5. She has been boiling this decoction for two hours already.

Exercise 7. Complete the following sentences.

1. I have been boiling water with sugar ... 2. She has been doing exercises ... 3. We have been buying necessary medicine ... 4. My younger sister has been having her breakfast ... 5. I have been translating the instruction of these suppositories ... .

Exercise 8. Translate into English.

1. Лікар приймає хворих уже дві години.
2. Мій друг лежить у ліжку вже кілька днів. У нього висока температура.
3. Він приймає ці ліки від головного болю кілька місяців.
4. Моя бабуся готує трав'яні чаї. Мабуть, вона варить трави з самого дитинства.
5. Коли ви почали читати цей довідник? Як довго ви його читаєте?

III. Independent Work: D.I. Mendeleev

Exercise 1. Read the text.

Outstanding Russian Chemist D.I. Mendeleev

The second half of the 19th century was a period of rapid growth of chemistry. Among those who contributed to its further development was Dmitriy Mendeleev, the discoverer of the Periodic Law of the Elements.

Today the Periodic Law is studied by millions of secondary school children and by

students at higher education establishments of natural sciences and engineering. It is studied by philosophers, historians and teachers. The Law serves as a basis for thousands of researches. The Periodic Law crossed national boundaries and has become the property of all nations, just like the works of Newton, Copernicus, Lomonosov, Darwin, Pavlov, Lobachevsky and Einstein.

Dmitry Mendeleev expressed the essence of his Law as follows: "The properties of the elements and, consequently, the properties of the simple and complex bodies formed by them are periodic functions of their atomic weights". When atomic weight increases, the chemical elements periodically and at certain intervals show similar properties. After deep analysis of literature and experimental data on the properties of elements, Mendeleev arranged all the elements in a table consisting of vertical groups and horizontal periods. In this table all the data on the properties of the elements and their compounds are collected and arranged into a system.

Before Mendeleev, several chemists tried to systematize the elements. Among them were German, English and French scientists. But they couldn't do that.

It was only after gallium, scandium and germanium were discovered in France, Sweden and Germany and after the properties of a number of elements predicted by Mendeleev were confirmed, and finally after a debate lasting for several years in journals that Mendeleev was recognized as the author of the Periodic Law.

In a few years Mendeleev was elected an honorary member of the American, English, Rome, Berlin, Belgian, Danish, Cracow and other Academies of Sciences; a member of the Royal Societies of London and Edinburgh and an honorary doctor of Cambridge, Oxford and other universities. Altogether 150 scientific and educational institutions in various countries elected him an honorary member. The Academy of Sciences and the Mendeleev Society award the Mendeleev Prize and the Mendeleev Gold Medal for outstanding research work in chemistry.

Exercise 2. Make up a vocabulary of new words, write them down in your vocabularies.

Exercise 3. Make up a plan of the text.

Exercise 4. What is the main idea of the Periodic Law of the Elements?

Exercise 5. Tell your group about Dmitriy Mendeleev.

LESSON THIRTY-FOUR

I	**Speaking**	Chemical Elements. Properties of Substances
II	**Grammar**	1. Дієслова у Past Perfect Continuous (§90). 2. Складний додаток після дієслів ***to want, to expect***. Вираз ***should/would like to*** (§91)
III	**Independent Work**	Chemical Elements of Living Matter

I. Speaking: Chemical Elements. Properties of Substances

Exercise 1. Test yourself: do you remember these words? Read, pay attention to their translation.

Change: change of color; chemical changes; physical changes. We can change the color of metals.

Produce: the factory produces various materials; production of materials; this medicine was produced in 1929.

Consider: they considered themselves very important; they consider him a famous scientist; we must consider his youth; she is considered a very clever girl.

Rain: It rains today; when it rains, I usually stay at home; there was a heavy rain last night.

Establish: our college was established in 1928; there are many higher educational establishments in our city; it is established that the substance dissolves slowly.

Leaf (pl. leaves): Leaves of trees are green in summer; the last leaf falls to the ground; leaves fall in autumn.

Exercise 2. Read the following words of Latin or Greek origin. Pay attention to their spelling and pronunciation.

Periodic [piəri'ɒdik], hydrogen ['haidrədʒən], carbon ['kɑ:bən], nitrogen ['naitrədʒən], iodine ['aiədi:n], concentration [ˌkɒnsənt'reiʃn], ion [aiən], oxygen ['ɒksidʒən], phosphorus ['fɒsfərəs], chlorine ['klɒri:n], potassium [pə'tæsjem], calcium ['kælsiəm], human ['hju:mən], total ['təʊtl], evolution [ˌi:və'luʃən], constituent [kən'stitjʊənt], sodium ['səʊdjəm], protein ['prəʊti:n], bicarbonate [bai'kɑ:bənit], ammonium [ə'məʊnjem], phosphate ['fɒsfeit], sulphate ['sʌlfeit], diet ['daiət], dioxide [dai'ɒksaid], metal ['metl], molecular [məʊ'lekjʊlə], molecule ['mɒlikju:l], organic [ɔ:'gænik], lithium ['liθiəm], magnesium [mæg'ni:zjəm], bromine ['brəʊmi:n], liquid ['likwid], component [kəm'pəʊnənt], mixture ['mikstʃə], practical ['præktikəl], chromatography [ˌkrɒmə'tɒgrəfi], caustic soda ['kɔ:stik'səʊdə], sulphur ['sʌlfə].

Exercise 3. Read and learn the following words:

a) names of chemical elements or their combinations:

lead [led] свинець
diamond ['daiəmənd] алмаз; діамант
copper ['kɒpə] мідь
iron [aiən] залізо
fluorine ['flʊəri:n] фтор
fluoride ['flʊəraid] фторид
gold ['gəʊld] золото
silver ['silvə] срібло

b) names of substances:

sugar [ˈʃʊgə] цукор
sand [sænd] пісок
dust [dʌst] пил
solid [ˈsɒlid] тверда речовина
bone – кістка
tissue – тканина

c) names of physical properties:

sense [sens] відчуття; відчувати
taste [teist] смак
odor [ˈəʊdə] запах
break [breik] ламати
freeze [fri:z] замерзати
deform – деформувати
density [ˈdensiti] питома вага
soft – м'який
light – легкий
transparent [træns'pæərənt] прозорий
rapid – швидкий
affect – впливати
separate – відділяти
sample [ˈsæmpl] зразок; проба
detect – відкривати, знаходити, виявити

Exercise 4. Fill in the blanks with the verbs *affect, occur, separate, remove, detect.*

1. Oxygen and nitrogen widely ... in nature. 2. High temperature and pressure ... sometimes the composition of a compound. 3. It is necessary to ... impurities before the beginning of the experiment. 4. Water can be ... by means of distillation. 5. Chlorine is a greenish yellow gas which is not difficult ... by its odor.

Exercise 5. Answer the questions.

1. Is fluorine a gas? 2. Does lead deform under the action of high temperatures? 3. Does diamond deform under the action of high temperatures? 4. Does the human body contain inorganic substances? 5. Is oxygen present in the human body? 6. Does water constitute 45 to 75 % of the total weight of the human body? 7. Is calcium contained in bones? 8. Are there important inorganic constituents in the human body in addition to water? 9. Is carbon the most common element of living matter? 10. Do most of inorganic elements occur in living matter? 11. Is chlorine a greenish yellow gas? 12. Does sodium conduct electricity? 13. Is sodium a very reactive substance? 14. Is the river water a mixture of substances? 15. Is distilled water a pure substance?

Exercise 6. Read the sentences, name the tense and voice of the verbs.

1. Water freezes at the temperature of 0°C. 2. It is considered that life developed in the water of the Earth. 3. One half of the body weight is due to carbon. 4. Physical changes do not mean a change in the composition of a substance. 5. Some elements easily conduct electricity. 6. Many drugs affect living cells and are considered a strong poison. 7. Tea and coffee are characterized by different taste and odor. 8. Water is a colorless, odorless and transparent liquid with a boiling point of 100°C. 9. It is difficult to separate and detect constituents of drugs.

Exercise 7. Name the chemical elements in English.

Fe, Cu, O, Na, K, HCl, S, H_2SO_4, Cl, C, Ca, F, Pl, N, I, H_2O.

Exercise 8. Read the text and translate it.

Symbols in chemistry stand for the elements. For example, H, O, N, Cl, K, S stand for the elements hydrogen, oxygen, nitrogen, chlorine, potassium, sodium respectively. The chemical symbol stands only for one atom of the element. The atom is the smallest particle of the element

that can enter into chemical combinations. Atoms can combine and form molecules. For example, two atoms of hydrogen will form a molecule of hydrogen.

When different atoms combine as in the case of water (H_2O) or sulphuric acid (H_2SO_4), the formulas say what atoms and how many of them are present. For example, H_2SO_4 molecules consist of two hydrogen atoms, one sulphur atom and four oxygen atoms.

Exercise 9. Match the nouns to the verbs.

solidify	detection
suspend	characteristics
characterize	suspension
locate	separation
deform	occurrence
take	deformation
consider	identification
identify	intake
establish	consideration
occur	establishment
separate	location
detect	solid

Exercise 10. Read the description of some chemical elements. What elements are spoken about? Use their names instead of blanks.

a) ... occurs naturally both free and combined in the form of sulphates of calcium, barium, magnesium, and sulphides of zink, iron, copper, and mercury. One of the most abundant minerals containing ... is iron pyrites. In volcanic regions, for example, in Italy, North America, ... is found in free state associated with native sulphate and carbonate. ... occurs in group VI of the Periodic Classification, which includes oxygen, sulphur, selenium, tellurium, together with the metals of the A subgroup. ... and oxygen are in many ways similar.

b) Of the three elements – iron, cobalt, and nickel – which are included in group VII of the Periodic Classification, ... finds important uses in medicine. ... is not generally met in the free state but its combinations are widely distributed. ... forms two series of salts. Solutions of ... salts are usually very pale green.

c) ... is a colorless liquid having a characteristic alcoholic odor. The boiling point is 66°C. It mixes in all proportions with water and with ethyl alcohol and burns with a pale blue flame, forming water and carbon dioxide. Chemically it is very reactive. ... is neutral to litmus, but reacts with concentrated acids. With acetic acid it gives methyl acetate. It reacts readily with phosphorus trior pentachloride with the formation of methyl chloride.

Exercise 11. Complete the sentences using the following word combinations.

1. Sugar and salt have ... . 2. Breaking, freezing, melting, boiling and deforming of a substance are considered .... 3. The reaction of sodium with chlorine is a typical .... 4. Filtration can be used to separate the iron powder from the ... . 5. Most of nitrogen, sulphur and iodine and heavy metals are present or combined with ... 6. Life is dependent upon great amounts of ... . 7. Toxic substances can be classified into several categories according to ... .

(sulfur solution, chemical reaction, organic molecules, many different elements, effects on the body, different tastes, physical changes)

Exercise 12. Communicative situations.

1. Tell English tourists about Dmitriy Mendeleev.
2. Tell about the Periodic Classification of the Chemical Elements.
3. Characterize some of the chemical elements according to the plan:
   1) Physical properties of the chemical elements (odor, taste, color).
   2) Physical and chemical changes.
   3) Properties of some chemical elements.
   4) Chemical elements of living matter and their amount.
   5) Water, its composition.
   6) Purification of substances.
   7) Methods of purification.

II. Grammar Exercises

Exercise 1. Read this paragraph, translate it. Find verbs in the Past Perfect Continuous Tense.

Mr. Dennis Fowler died last Friday evening in the Highfield Hospital at the age of 58. Mr. Fowler suffered a heart attack at his home three weeks ago after he had been cooking a meal for some guests. According to friends he had been working very hard at his mobile telephone business, which had been losing money.

Exercise 2. Put the verbs in brackets in the Past Perfect Continuous Tense as in the model:

***Model**: A: I had a terrible backache last week.*
B: Oh, dear. What ... you (do)? — What had you been doing?

A.: I (dig) in the garden. It was in the afternoon on Sunday.

B.: I (not do) it long when I felt pain in my back. It was still aching the next day. When I finally got to see the doctor, I (wait) over an hour. He was late. He (deal) with an emergency. But he was able to help me. It's much better now.

Exercise 3. Add a sentence in the Past Perfect Continuous Tense to explain how accidents happened. Use the words in brackets.

***Model**: Some children started a house fire.*
They'd been playing with matches.

1. A man fell off a ladder. *(to clean a window)*
2. A girl drowned in the lake. *(to walk on the ice)*
3. A young woman was hit by a car. *(to hitch-hike)*
4. Two boys were killed by a train. *(to play on the railway line)*
5. A woman fell down the stairs in the middle of the night. *(to walk in her sleep)*
6. A man died of an electric shock. *(use a faulty electric drill)*

Exercise 4. Put in the correct form of the verbs as in the model.

***Model**: Steve could hear shouts from the flat next door.*
his neighbours (to argue) – His neighbours were arguing.

1. Lucy went into the living room. It was empty but the television was still warm. Someone (to watch) it.

2. I (to play) tennis, so I had to shower. I was annoyed because I (not win) a single game.

3. The walkers finally arrived at their destination. They (to walk) all day, and they needed a rest. They (to walk) thirty miles.

4. When I saw Ben last week, he said he (to stop) smoking. But when I saw him two days later, he (to smoke) a cigarette. He took the cigarette from his mouth and looked rather ashamed.

5. Harry found a note from Graham in Celia's coat. That's how Harry found out they (to have) an affair. In fact they (to see) each other for months. Graham's wife (to know) about it all the time.

Notes to Exercises 1–4:

emergency [iˈmɜ:dʒənsi] аварія; непередбачений випадок
hitch-hike [ˈhitʃhaik] подорожувати автостопом
railway line – залізнична лінія
faulty [ˈfɔ:lti] пошкоджений; несправний
drill – дриль
ladder [ˈlædə] драбина
drown [draun] тонути; потопати
hit – ударити
argue [ˈa:gju:] сперечатися
annoyed [əˈnɔid] роздратований; невдоволений
destination [ˌdestiˈneiʃn] місце призначення
ashamed [əˈʃeimd] присоромлений

Exercise 5. Name the parts of speech of the following words, translate them.

Basic, mechanism, obesity, regulating, especial, especially, concentration, immunoreactive, generally, causal, purify, healthy, relationship, genetic.

Exercise 6. Make up sentences; use expressions translating the right column.

		вони провітрили палату.
I want		він закінчив огляд хворих.
We didn't want		їх виписали з лікарні.
She expects	щоб	все було зроблено вчасно.
He wouldn't like		медсестра дала таблетку від головного болю.
I'd like		вона зміряла мені температуру.
		ми обговорили це питання.
		нас переривали.

III. Independent Work: Chemical Elements of Living Matter

Exercise 1. Read the text and answer the question: *What substances are spoken about in this text?*

Chemical Elements of Living Matter

Living matter contains about one third of the elements of Mendeleev's Periodic Table. Only hydrogen, carbon, nitrogen and iodine are found in higher concentration in the human

body than in the Earth. Six other elements are found in roughly the same proportions: oxygen, phosphorus, sulphur, chlorine, potassium and calcium.

Certain organisms may accumulate considerable amounts of elements that do not normally occur in the human body.

Besides hydrogen, oxygen is the element present in the human body in the greatest amount constituting about 65 % of the total (by weight) amount.

The most amount of oxygen is combined with hydrogen as water. It is generally recognized that **the primeval life forms**[1] developed in the waters of the Earth and the evolution of animals progressed much in the sea.

The heritage of our remote origins is still contained within us – the most abundant compound constituting the human body is water which constitutes 45 % to 75 % by weight. The exact amount depends principally on age, sex and build; relatively, infants have more than adults, men more than women. There may also be considerable differences between healthy and ill people and the water content of the body may be affected by drugs.

The next most common element is carbon to which about one half of the body weight of tissues is due. The unique nature of living matter is due to its organic constituents, that is, compounds, based on a carbon chain.

There are important inorganic constituents of the body, in addition to water. Sodium, potassium, chlorine are present as the ions, and so are part of calcium, magnesium, iodine and bromine. The total body sodium in a young adult is about 58 **mmol/kg**[2] (1.3 g/k). The normal recommended intake of NaCl is 1 g per kg of water. Most western European and American diets contain 6–8 g of NaCl per day which, in a temporate climate, is much greater than required. The total body potassium in a young adult man is about 50 mmol/kg (1.9 g/k). It is somewhat less in women and decreases slightly with advanced age. An adult man was about 16.7 mmol/kg (400 mg/kg) of magnesium in his body, about half of which is present in bones. The concentration of magnesium in cells is about 7.5 mmol/1, about 1/3 of this is **protein-bound**[3].

Other important ions occurring in living matter, besides those formed from organic acids and bases, are bicarbonate, ammonium, phosphate and sulphate. The bony skeleton and the teeth contain **lithium fluoride**[4] as well. Additional important inorganic compounds include carbon dioxide and oxygen. Most of nitrogen, sulphur and iodine and the heavy metals are present in organic molecules. About one tenth of phosphorus is combined with organic compounds.

Notes:

[1]primeval life forms – початкові форми життя

[2]mmol/kg – концентрація речовин у розчині, що відповідає одній тисячній грам-молекули в 1 л розчину чи 1 кг маси

[3]protein-bound – зв'язаний з білком

[4]lithium fluoride – фтористий літій, фторид літію

Exercise 2. Read the sentences and name the tense and voice of the verbs; translate the sentences into Ukrainian.

1. The primeval life forms developed in the waters of the Earth. 2. The evolution of animals progressed greatly in the sea. 3. The exact amount of water in the human body depends on a person's age, sex and build. 4. Carbon constitutes about one half of the body weight. 5. The

amount of potassium decreases slightly with advanced age. 6. The water content of the body is affected by drugs. 7. Heavy metals are present in organic molecules.

Exercise 3. Read the sentences. Put the verbs in brackets in the correct form.

1. Hydrogen, carbon, nitrogen and iodine (to find) in higher concentrations in the human body than in the Earth. 2. Oxygen in the living matter (to constitute) 65 % of the total amount. 3. Primeval life forms (to develop) in the waters of the Earth. 4. The most amount of oxygen (to combine) with hydrogen as water. 5. The total body potassium (to decrease) slightly with advanced age. 7. The bony skeleton and the teeth (to contain) lithium fluoride as well.

Exercise 4. Answer the following questions using the text.

1. What amount of chemical elements does living matter contain? 2. What elements are recognized as the most abundant in nature and human body? 3. What elements are found in the human body in higher concentrations than in the Earth's crust? 4. Is it right to say that primeval life forms developed in water? 5. Why does water constitute most part of the human body? 6. What does the exact amount of water in an adult and an infant depend on? 7. Is there any difference in water content in healthy and ill people? 8. What is the unique nature of living matter due to? 9. When does the total body potassium decrease? 10. What is the recommended dose of sodium chloride intake daily? 11. What chemical elements do bones and teeth contain? 12. What amount of phosphorus is combined with organic compounds? 13. What parts of the human body contain nitrogen, sulphur, iodine?

LESSON THIRTY-FIVE

I	**Speaking**	At the Chemist's
II	**Grammar**	1. Дієслово у Future Perfect та Future Perfect Continuous (§92). 2. Скорочені ствердкувальні і заперечні речення типу ***So shall I, Neither (nor) did he*** (§93)
III	**Independent Work**	Aspirin

I. Speaking: At the Chemist's

Exercise 1. Phonetic reading: practice the pronunciation of the following words. Try to translate them without the dictionary.

Prescription [pris'kripʃn], chemist ['kemist], label ['leibl], poisonous ['pɔiznəs], to administer [əd'ministə], dose [dəʊs], dosage ['dəʊsidʒ], tonics ['tɒniks], intravenous [ˌintrə'vi:nəs], intramuscular [ˌintrə'mʌskjʊlə], subcutaneous [ˌsʌbkju'teiniəs], sedatives ['sedətivz], laxatives ['læksətivz], bromide ['brəʊmaid], cardiac ['kɑ:diæk], iodine ['aiədi:n], tranquillizer ['træŋkwiˌlaizə], stimulant ['stimjʊlənt], hormone ['hɔ:məʊn], diuretic [ˌdaijʊə'retik], narcotic [nɑ:'kɒtik], antibiotic [ˌæntibai'ɒtik], depressant [di'presənt], antihypertensive [ˌænti'haipɛ:'tensiv], compatibility [kəmˌpætə'biliti], orally ['ɔ:rəli].

Exercise 2. Learn the following words and word combinations by heart. See the transcription of the words in Exercise 1.

Label – етикетка; labels of three colors (white, yellow, blue); to stick a label on a bottle; the dose of the drug is indicated on the label.

To administer – призначати; to administer some medicines; to administer some drug orally (для внутрішнього вживання); a doctor administers proper treatment; direction for administration of a drug.

Dose – доза; dosage – дозування; the dose is indicated on the label; overdosage of a drug may cause allergic reaction – передозування ліків може викликати алергічну реакцію.

Vitamin – вітамін; vitamins for internal use, for intravenous injections, for intramuscular injections.

drugs for cough – ліки від кашлю
cardiac medicine – серцеві ліки
tonic – тонізуючий (зміцнювальний) засіб
sedative – заспокійливий (снодійний) засіб
tranquillizer – заспокійливий засіб, транквілізатор
stimulant – збуджуючий засіб
diuretic – сечогінний засіб
depressant – заспокійливий засіб
antihypertensive – засіб, що знижує тиск (гіпотензивний)
to be in charge of – бути відповідальним за
manager – керівник, директор, завідувач
compatibility – сумісність
ingredient – складова частина
constant – постійний
average – середній
drug cabinet – шафа для зберігання ліків
strong effective drug – сильнодіючі ліки
medicines right away – готові лікарські препарати
% – per cent [pə′sent] – відсоток, процент
ml, milliliter – мілілітр
mgm, milligram – міліграм

Exercise 3. Read the text and translate it.

At the Chemist's

Chemists' shops are specialized shops where medicines are sold. Chemists' shops are usually situated on the ground floor. They have a hall for visitors, two departments for selling drugs, and proper working rooms.

The department for reception of prescriptions and delivery of drugs is called a prescription department. The other one is called a chemist's department. In the prescription department medicines are sold or made up according to prescriptions. In the chemist's department you can buy medicines without prescriptions. In this department different things for medical care and medicinal plants are bought.

The working rooms of a chemist's include rooms for washing, drying and sterilization of glassware, an analytical laboratory, a room for storing medicines, a room for dispensing them and some others.

At the chemist's all medicines are kept in drug cabinets, on open shelves and in the refrigerator. Poisonous drugs are kept in a drug cabinet with the letter **A**. Strong effective drugs are kept in a drug cabinet having the letter **B**.

The drugs prepared at the chemist's for immediate use should be kept in the refrigerator. Powders, galenical preparations and medicines produced at pharmaceutical plants are usually kept on shelves protected from light at a constant temperature, not higher than room temperature.

Every small bottle or box has a label with the name of the medicine. There are labels of four colors for the drugs prepared at the chemist's: labels of green color indicate medicines for internal use; blue labels indicate drugs used for injections. Drugs for external application have labels of yellow color. Drugs used for treatment of eye diseases have labels of pink color.

The single dose and the total dosage are indicated on the label or signature. The directions for drug administration are very important for sick people as well as for those who take care for them.

In the chemist's department medicines are kept according to the therapeutic effect: drugs for cough, cardiac medicines, drugs for headache. Disinfectants, herbs and things for medical care such as hot-water bottles, medicine droppers, cups, thermometers, etc. are kept separately.

In the prescription department one can see drugs of all kinds, boxes and parcels for different powders, ampules of glucose and camphor used for internal use; tonics and sedatives administered orally.

The personnel of an average chemist's consists of a manager of the chemist's, a dispensing pharmacist who takes prescriptions and delivers drugs, a chemist controlling prescriptions, that is, physical, physico-chemical and pharmacological compatibility of the ingredients of compounds prescribed by physicians. The personnel includes also a chemist-analyst who controls effectiveness of the drug prepared at the chemist's as well as that of manufactured drugs. There is also a pharmacist who is in charge of the supply of necessary medicines.

Exercise 4. Test yourself: can you translate these topical words and word combinations?

Prescription, chemist's, to have a prescription made up, chemist's department, prescription department, drug, drug cabinet, label, to stick smth on smth, to indicate administration, chemist, remedy, poisonous, overdosage, untoward, powder, ampule, intravenous, intramuscular, tube, to heal, ointment, to rub in, irritation, pill, sedative, tonic, cod liver oil, sleeping draught, laxative, to administer, indigestion, dropper, to mark, effective, to sponge, to rinse, to take a tablespoonful of.

Exercise 5. Answer the questions based on the text.

1. What floor are the chemist's shops usually situated on? 2. How many departments are there in every chemist's shop? 3. What things can you buy in the chemist's department? 4. What is mainly sold in the prescription department? 5. How many rooms does a chemist's consist of? 6. Where are different drugs kept at the chemist's? 7. What drugs should be kept in the refrigerator? 8. At what temperature should drugs be kept in the refrigerator? 9. What is the color of labels on

bottles with drugs for external use? 10. Where are the dosage and administration indicated? 11. Can we buy things for medical care at the chemist's? 12. What kinds of drugs are there in the prescription department? 13. What can you say about the personnel of the chemist's? 14. What does a manager of a chemist's do? 15. What does a dispensing pharmacist do? 16. What does a controller do? 17. What does a chemist-analyst do? 18. What does a pharmacist of supply do?

Exercise 6. Fill in the blanks with the modal verbs *can, may, should, must.*

1. You ... be careful when you take medicines. 2. I ... order the prescription at our chemist's. 3. You ... keep the mixture in a cool place. 4. How many times a day ... I take the medicine? 5. This drug ... be kept in the refrigerator. 6. You ... buy all the necessary drugs at the chemist's department. 7. All the drugs ... have a label with the name of the drugs and directions for administration.

Exercise 7. Put the verbs in brackets in the appropriate form.

1. The prescription *(to prepare – Past Indefinite Passive)* in two hours. 2. The prescription *(to contain – Present Indefinite Active)* the name of the drug, the name of the patient, the name of the physician and other information. 3. Today all prescriptions *(to write – Present Indefinite Passive)* in English. 4. That chemical name *(to be – Past Indefinite)* difficult to use and remember. 5. At the chemist's there *(to be – Present Indefinite)* a special room for preparation of medicines. 6. Powders, galenical preparations and medicines *(can – Past Indefinite)* be produced at pharmaceutical plants. 7. A dispensing pharmacist *(to take – Past Indefinite Active)* prescriptions.

Exercise 8. Answer the questions; begin your answer with the words:

I think (that) ...
I suppose (that) ...
I know (that) ...

1. What drugs should be kept in the refrigerator? 2. Where can you buy things for medical care? 3. How should galenical preparations be kept? 4. Where are single dose and total dosage indicated? 5. Are poisonous drugs kept according to special rules?

Exercise 9. Read the short dialog and act it out.

At the Chemist's

– Will you make up this prescription, please?
– Just a minute... Here you are. One tablespoon before meals three times a day.
– Thank you.
– As for these tablets, you can get them without prescription in the other department.

Exercise 10. Translate into Ukrainian.

1. Drugs used for treatment of eye diseases have a pink color. 2. Directions for administration of a drug may be very important for patients. 3. Drugs will be ready in two hours. 4. A chemist-analyst has to control the effectiveness of drugs. 5. Overdosage may cause untoward reactions. 6. Generic names should be used as the language for prescriptions. 7. Each drug has its own dose specification.

Exercise 11. Prepare a report about the chemist's shop according to the plan.

1. Departments of an average chemist's.
2. Working rooms of the chemist's.
3. Personnel of the chemist's.
4. General description of drugs, groups of drugs, their labels and dosage forms and doses.

II. Grammar Exercises

Exercise 1. Name the parts of speech of the following words.

Treatment; toxic, toxicology, toxicosis, toxicogenic, intoxication, intoxicate, toxicity; associated, association; particularly; available, availability; progressive; mainly; commonly; obtainable; selective; regional; reaction; subtropical; antimalarial; peripheral; chronic.

Exercise 2. Learn the word *rate* and its meanings.

rate (n)	1) швидкість, темп, ритм, інтенсивність
	2) ступінь, коефіцієнт, індекс, рівень
	3) потужність, інтенсивність
	4) частота
	5) доза, норма, кількість, виробництво
	6) ціна, оцінка
rate (v)	1) цінити, оцінювати, вимірювати
	2) вважати, розраховувати, розглядати
birth rate	– рівень народжуваності
death rate	– рівень смертності
dose rate	– інтенсивність/сила дози
heart rate	– частота серцевих скорочень
metabolic rate	– швидкість/рівень метаболізму
morbidity rate	– розповсюдження хвороби

Translate the sentences with *rate*:

1. It is difficult to separate rates for alcohol and drug use.
2. The rates of this disease vary by area.
3. Heart rate was monitored continuously and blood pressure was recorded every 5 minutes.
4. We also observed a high rate of remission.
5. His metabolic rate is rather normal.

Exercise 3. Translate the pairs of antonyms into Ukrainian.

A modern drug – an outdated drug, a single dose – a total dose, receive – deliver, reception – delivery, depressant – stimulant, healthy – sick (ill), healthy people – patients.

Exercise 4. Translate the sentences in the Future Perfect Tense.

1. I'll have finished my work by the time you come. 2. The work will have been done by 5 o'clock. 3. Will you have taken all your exams by the end of June? 4. She will have made all

injections by the doctor's order. 5. I'll have rung him up before I begin my lecture. 6. I'll have had a talk with you before I have done this work.

Exercise 5. Find sentences in the Future Perfect Continuous Tense.

1. When I entered the ward, the doctor was examining my uncle. 2. We will have been asked for the anatomy test when you come. 3. The students will have been discussing future internship for a long time when the director returns. 4. He likes to speak English. 5. We will visit him at hospital tomorrow.

Exercise 6. Translate the sentences into English, use the Future Perfect or Future Perfect Continuous Tense.

1. Лікар вже огляне всіх своїх пацієнтів до 12 години. 2. Лікар оглядатиме своїх пацієнтів кілька годин, перш ніж піде в операційну. 3. Ми й 10 хвилин не чекатимемо викладача, який прийде читати лекцію. 4. Він завершить операцію до огляду хворих. 5. Ми перекладатимемо цю інструкцію ліків довго: вона дуже велика.

Exercise 7. Add short answers to the sentences as in the model.

Model: *1) "I like skating." – "So do I."*

2) "I can't do this injection." – "Neither can he."

1. We saw this tree in the distance. (Вони також.)
2. I got an important task today. (Він також.)
3. He wasn't late for the lesson. (Вони також.)
4. I'm sure you'll pass the exams. (Моя подруга також.)
5. I have never seen him before. (Мій батько також.)
6. I enjoyed the lecture very much. (Мої друзі також.)

Exercise 8. Complete the sentences with *"я (ми, ви, він, вони) також"* in English, use the Model of Exercise 7.

1. I am dying of hunger … .
2. We are very thankful to you … .
3. My brother can't drive … .
4. My father always gives me good advice … .
5. I am not satisfied with your mark … .
6. We didn't speak English well… .

Exercise 9. Put the verbs in the correct form (indefinite active or passive) and translate the sentences.

1. After some years of studies graduates of the medical college *(to work)* at different hospitals departments. 2. He *(to find)* that many students were deficient in scientific knowledge. 3. Great attention in his lectures *(to give)* to organic chemistry. 4. The Fahrenheit thermometric scale and some new methods of study *(to introduce)* by Dutch chemist Boerhaave. 5. Pharmacy *(to define)* as the science of drugs. 6. The civilization of the past *(to contribute)* to our present knowledge by the collection of drugs and drug preparations.

III. Independent Work: Aspirin

Exercise 1. Read and translate the text.

Ordinary Aspirin Is Truly a Wonder Drug

Aspirin is the most popular drug in the world today. Many people take aspirin when they have a headache. It is effective in relieving other pains too.

Americans swallow 15,000 tons of aspirin, one of the safest and the most effective drugs invented by man, every year. Its bad effects are relatively mild, and, besides, it is cheap.

For millions of people, suffering from arthritis, it is the only thing that works. Aspirin, in short, is truly the 20th century wonder drug. It is also the second largest suicide drug and it is the leading cause of poisoning among children. Its side effects, although relatively mild, are largely recognized among users.

Although aspirin was first sold by a German company in 1899, it has been around much longer than that. Hippocrates, in ancient Greece, understood the medical value of the leaves and tree bark which today are known to contain salicylates, the chemical in aspirin. During the 19th century, there was a great deal of experimentation in Europe with this chemical, and it led to the introduction of aspirin. By 1915, aspirin tablets were available in the United States.

A small quantity of aspirin (two five-grain tablets) relieves pain and inflammation. It also reduces fever by interfering with some of the body's reactions. Specifically, aspirin seems to slow down the formation of the acids involved in the pain and the complex chemical reactions that cause fever. The chemistry of these acids is not fully understood, but the slowing effect of aspirin is well known.

Aspirin is very irritating to the stomach lining and many aspirin takers complain about upset stomaches. There is a right way and a wrong way to take aspirin. The best way is to chew the tablets before swallowing them with water, but few people can stand the bitter taste. Some people suggest crushing the tablets in milk or orange juice and drinking that.

Exercise 2. Read each statement. Write "T" after true statements and "F" after false statements.

1. Aspirin is one of the safest drugs invented by man.
2. This text states that aspirin is a pain reliever that works for arthritis and headaches.
3. Aspirin is the leading cause of poisoning among children.
4. The side effects of aspirin are quite serious.
5. The chemical in aspirin has been used for less than 100 years.
6. Ancient Greeks understood the value of salicylates.
7. Aspirin interferes with some of the body's reactions.
8. Aspirin speeds up the formation of acids that cause pain.
9. Scientists do not completely understand how aspirin works.
10. You should swallow aspirin tablets whole.

Exercise 3. Choose the best possible answers and complete the sentences with them.

1. This text discusses:
   a) only the good things about aspirin.

b) only the bad things about the aspirin.
c) both good and bad things about aspirin.

2. The side effects of aspirin are:
   a) serious.
   b) mild.
   c) none.
3. The information in the article shows that:
   a) aspirin can be dangerous.
   b) aspirin is always safe.
   c) aspirin is both safe and dangerous.
4. Aspirin tablets were available in the United States in:
   a)1950.
   b)1915.
   c)1899.
5. Salicylates are the:
   a) leaves and tree bark.
   b) chemical in aspirin.
   c) aspirin tablets.
6. Aspirin can cause:
   a) an upset stomach.
   b) pain and inflammation.
   c) formation of the acids involved in a fever.
7. Aspirin seems to (A) the reactions that (B) fever. (Choose one word from each group and put both letters on the line: A _____ B.)

a) speed up	a) cause
b) slow down	b) stop
c) stop	c) understand

8. The best way to take aspirin is to:
   a) swallow tablets.
   b) crush tablets.
   c) chew tablets.
9. The author of this text seems to be:
   a) more in favor of aspirin.
   b) more against the use of aspirin.
   c) not interested in aspirin.
10. A good title for this text would be:
    a) Aspirin: The Most Popular Medicine in the World
    b) Why I Take Aspirin
    c) The Side Effects of Aspirin
    d) The History of Aspirin

LESSON THIRTY-SIXLESSON THIRTY-SIX

I	**Speaking**	Obstetrics and Gynecology
II	**Grammar**	Місце прислівників у реченні (§94)
III	**Independent Work**	Childbirth

I. Speaking: Obstetrics and Gynecology

Exercise 1. Practise the pronunciation of the following words.

Unreliable, threaten, wheel, vague, warning, premature, guess, sweatbox, whispering, gynecology, pause, nightmare.

Exercise 2. Learn the following words and word combinations.

fetus ['fi:təs] плід
gynecology [ˌgaini'kɒlədʒi] гінекологія
ovum (pl. ova) – яйцеклітина
pelvis ['pelvis] таз
period ['piəriəd] менструація
to miss a period (syn. to be overdue) – мати затримку менструації
pregnancy – вагітність
pregnant – вагітна
signs of pregnancy – ознаки вагітності
ectopic, or extrauterine pregnancy – позаматкова вагітність
reproduction – відтворення; розмноження
vagina [və'dʒainə] піхва
birth [bɜ:θ] народження
childbirth – пологи
to give birth to a child – народити дитину
(child)birth pains – перейми
a woman in childbirth – породілля
deliver [di'livə] народжувати
delivery (syn. labor ['leibə]) – пологи
obstetrician [ˌɒbsti'triʃn] акушер
obstetrics [əb'stetriks] (syn. midwifery) – акушерство
midwife – акушерка
onset ['ɒnset] початок (хвороби, пологів)
premature [prəmə'tjuə] передчасний; недоношена дитина
term [tɜ:m] термін, строк, певний період
a full-term baby – доношена дитина
newborn – новонароджений
stillborn – мертвонароджений
afterbirth – послід, плацента
cesarian section [si'zɛəriən'sekʃn] кесарів розтин
birth activity – пологова діяльність
conception – запліднення
fertility [fɜ:'tiləti] здатність до відтворення потомства
infertility – безпліддя
gestation [dʒə'steiʃn] період вагітності
gestosis [dʒə'stəʊzis] (syn. toxemia) токсикоз вагітних; гестоз
maternity [mə'tɜ:niti] материнство
maternity home – пологовий будинок
maternity leave – декретна відпустка
miscarriage [mis'kæridʒ] викидень
to curette – вишкрібати кюреткою
uterus ['ju:tərəs] (syn. womb [wu:m]) матка
umbilical [ʌm'bilikəl] пупковий
umbilical cord – пуповина
to induce abortion – викликати викидень
to perform abortion – робити аборт

Exercise 3. Pay attention that obstetricians can work at:

– a female (antenatal) department (жіноча консультація);
– a maternity home/hospital;

– a feldsher-midwife station (ФАП);
– prophylactic centers of large facilities (factories, plants, etc.).

Exercise 4. Read the necessary obstetrical terminology and translate it with a dictionary.

1. The fetal position is the correlation of separate parts of the fetus (the head, the trunk and the limbs).
2. The fetal position is also the relation of the fetal axis to the vertical axis of the uterus.
3. And it is also the position of the fetal back towards the sides of the uterus.
4. The fetal axis is the conventional line that goes from the back of the head to the coccyx.
5. The fetal presentation is the position of the fetus towards the plane of the pelvic entry.
6. The presenting part of the fetus is that part of it, which lies nearer to the small pelvic entry.
7. At a female department a midwife must be able to measure the sizes of the abdomen and the pelvis; to determine the term of pregnancy.
8. At a maternity home a midwife prepares the woman in childbirth to birth activity, manages the delivery, and provides all hygiene of the woman after labor.

Notes:
fetal position – положення плода в матці
fetal presentation – передлежання плода
presenting part of the fetus – передлегла частина плода
fetal axis ['æksis] вісь плода

Exercise 5. Make up sentences using the word combinations:
- the work of a midwife
- to give birth to a child
- a woman in labor
- at the maternity home
- to measure the sizes of the pelvis and abdomen
- to determine the term of pregnancy

Exercise 6. Read and translate the text using a dictionary.

a) During my midwifery practice in the 4th year I was called to a woman in labor. It was going to be my first case of delivery and I was very nervous. The door was opened by a thin girl of about five who took me upstairs to the room where the expectant mother was lying. I hoped to find a midwife there, the cool, experienced midwife that usually controlled all the students, but there was nobody. I was alone with my patient. I felt like an actor who forgot the words and found that the prompter (суфлер) had gone out for a drink.

"Now, Mother," I said cheerfully. "How many children do you have?" – "Five, Doctor," she answered.

Well, that was something. At least one of us knew a bit about childbirth. I wondered what to do.

b) "I think it's coming, Doctor!" she cried out between birth pains. I grasped her hand. "You'll be all right in a minute," I said as confidently (впевнено) as possible. "Leave it to me."

I turned into the corner and looked as if I was waiting for the time to interfere. Out of my pocket I drew a small but valuable book in a red cover "The Student's Friend in Obstetrical Difficulties" by Sir Percy Cudlip. He was an old obstetrician and had no illusions about what students would find difficult. It started with "The Normal Delivery". The text was written in short numbered paragraphs, like a cookery book. I looked at the first page. "Sterility," it said. "The student must try to achieve sterile surroundings for the delivery and scrub up himself as for a surgical operation. If there are no sterile towels, newspapers may be used as they are often bacteria free."

c) Newspapers, that was it! There was a pile of them in the corner, and I scattered them over the floor and the bed. This was a common practice in the district and if Mr. Percy Cudlip knew how many babies were born yearly on the "Daily Herald", he would be most surprised. I put a bowl with hot water on the table, took some soap and brush from the bag and started scrubbing.

"Oh, Doctor, Doctor!" cried the mother. "Calm down!" I said quietly. I went on scrubbing. The mother moaned. A cat which had not been removed, jumped in the middle of the newspapers and started tearing them with its claws (кігті).

d) Suddenly I became aware of a new note in the mother's cries – a higher weak noise. I dropped the soap and pulled down the blanket.

The baby was washed and put into a drawer (ящик) of a wardrobe that for a year was to be his cot. The mother was delighted and said she had never had such a comfortable delivery.

"Do you do a lot of babies, Doctor?" she asked. "Hundreds," I said. "Every day." "I'll call him after you, Doctor. I always call them after the doctor or the nurse."

I was very proud of the child. It was my first baby, born through my own skill and care. I had already forgotten that my single manoever in helping the delivery was pulling back the blanket.

(From *Doctor in the House* by R. Gordon)

Exercise 7. Give English words meaning the following.

1) A field of medicine that studies physiological and pathological processes associated with pregnancy, delivery and postnatal period;
2) a specialist that helps women during childbirth;
3) a woman that is having her baby;
4) a baby that is born before term;
5) a process of uniting a spermatozoon with an egg;
6) a baby that has just been born;
7) a chamber where premature babies are kept.

Exercise 8. Retell the text according to the plan.

a) Gordon appears in the house of a woman in labor.
b) Gordon reads the textbook.
c) His preparations for the delivery.
d) The happy end.

Exercise 9. Say whether these statemens are true or false.

1. Premature babies are always stillborn.
2. In the 19th century most women gave birth to their children in maternity homes.
3. Abortions are harmless for a woman's health.
4. Nausea, vomiting, loss of appetite are characteristic sings of early pregnancy.
5. In all cases when a woman misses her period, she must be considered pregnant.
6. Vaginal bleeding during early pregnancy is a true sign of a miscarriage.
7. If a woman is not able to conceive normally, artificial conception can help her.

II. Grammar Exercises

Exercise 1. Form verbs from the following words with the help of the given prefixes and suffixes. Translate them into Ukrainian.

en-: rich, large, circle, joy
-fy: simple, test, pure
-ize: critic, real, summary, analysis
-en: short, strength, wide, light, weak

Exercise 2. Complete the following sentences.

1. I wish … . 2. She looks as if … . 3. If I were you, … . 4. It is important that … . 5. I suggest that … . 6. If I were a president, … . 7. Had I more spare time, I … .

Exercise 3. Translate the sentences into English. Pay attention to the place of the adverbs in them.

1. Іноді речовина може бути твердою чи м'якою. 2. Стан речовини зазвичай залежить від температури. 3. Вода рідко зустрічається в природі у чистому вигляді. 4. Кілька років тому вчені ще не знали всіх властивостей цього хімічного елемента. 5. Ця речовина щойно вступила в реакцію з повітрям. 6. Зазвичай ця сіль білого кольору. 7. Він зараз у лабораторії зі студентами. 8. Зараз ми поговоримо про стан речовин, а потім про їхні властивості.

Exercise 4. Put in articles where required.

1. Here is … prescription for … vitamin B. 2. I'll put you on … sick leave till … end of … week. 3. … other day we carried out … experiment on … animals during our practical studies. 4. … chemist's shop in … Kyiv Street is … largest in … city. 5. Not to confuse different remedies … label must be stuck on … bottle or … box containing drugs. 6. … name of … medicine and … direction for its administration are usually written on … label. 7. … last week my brother caught … cold. We called in … district doctor. When … doctor examined my brother, he prescribed my brother … home treatment, … scalding foot bath and … medicine for … headache and cough. 8. Here are … ampules of … glucose you need for … intravenous injections. 9. I made … appointment with … district doctor for 12 o'clock. When … doctor examined me, he wrote out … prescription for … medicine. I ordered it, … chemist gave me … bottle of mixture and said that I had to keep it in …cool place.

Exercise 5. Translate into English.

У сучасній медицині проблемам акушерства та гінекології приділяється велика увага. Вивчаються питання ведення пологів, профілактики асфіксії плода. Учені запроваджують у практику (to introduce into practice) міри профілактики та лікування безпліддя, токсикозів вагітності, акушерського травматизму, кровотеч та інших ускладнень вагітності та пологів. Ведуться дослідження щодо знеболювання пологів. Спеціалісти вивчають методи діагностики різних хвороб.

III. Independent Work: Childbirth

Exercise 1. Read the text and translate it:

Scarlett looked at Prissy. For a moment her mind refused to accept the truth, but when realization came finally to her that Prissy knew no more about midwifery than she did, anger went over her like a flame.

At that moment the moaning from the second floor ceased and Melanie's voice, weak and trembling, called, "Scarlett, is it you? Please, come! Please!"

For a moment Scarlett stood still, listening to the low moaning which had begun again. She tried to think of all the things Mammy[1] and Ellen had done for her when her son was born, but the merciful blurring of the childbirth pains obscured almost everything in mist[2]. She did recall a few things and she spoke to Prissy rapidly, authority in her voice.

"Make a fire in the stove and keep hot water boiling in the kettle. Bring all the towels you can find. And give me the scissors. Don't come telling me you can't find them. Bring them and bring them quick. Now hurry."

She jerked[3] Prissy to her feet and sent her to the kitchen. Then she started up the stairs. It was going to be difficult telling Melanie that she and Prissy were to deliver her baby.

She wished she had paid more attention to the whispered conversations of matrons on the subjects of childbirth. If only she had! If only she had been more interested in such matters she would know whether Melanie was taking a long time or not[4]. She had a vague memory of one of Aunt Pitty's stories of her friend who was in labor for two days and died without having the baby. Suppose, Melanie should go on like this for two days! But Melanie was so delicate. She wouldn't stand two days of this pain. She will die soon if the baby doesn't hurry.

... It was all over. Melanie was not dead, and the new born boy, who made noises like a little kitten, was receiving his first bath at Prissy's hands. Melanie was asleep. How could she sleep after the nightmare of screaming pain and ignorant midwifery that hurt more than it helped? Why wasn't she dead? Scarlett knew that she herself would have died under such handling. But when it was over, Melanie had even whispered so weakly that she had to bend over her to hear, "Thank you".

Notes:

[1]Mammy – матінка; няня-негритянка

[2]the merciful blurring of the childbirth pains obscured almost everything in mist – все розпливалося як у тумані, милосердно стерте із пам'яті муками пологових перейм

[3]to jerk – різко штовхати

[4]she would know whether Melanie was taking a long time or not – їй було б зрозуміліше зараз, затягнулись у Мелані пологи чи ні

Exercise 2. Find English equivalents in the text.

Пологові болі, приймати пологи, протягом двох днів, витримати біль, пронизливий біль, догляд за, акушерство.

Exercise 3. Translate the typical questions an obstetrician asks her patients.

1. At what age did you have your first period?
2. How long is your period?
3. Are discharges excessive (moderate)?
4. Do you have pains during your period?
5. Are these attacks accompanied by giddiness, nausea, vomiting, urinary frequency increase, breathlessness, loss of consciousness, high temperature?
6. Have you had any gynecological disorders?

LESSON THIRTY-SEVEN

I	**Speaking**	Computers in Our Life
II	**Grammar**	Revision

I. Speaking

Exercise 1. Read and learn the words and word combinations.

hardware – апаратне забезпечення
monitor – монітор
keyboard – клавіатура
printer – принтер
connection – зв'язок; з'єднання, сполучення
software – програмне забезпечення
run on the computer – запускати на комп'ютері
word processing programs – текстовий редактор
graphics program – графічний редактор
spreadsheets program – бухгалтерська програма
desktop publishing program – видавнича програма
key in, type in – друкувати
save information – зберігати інформацію
retrieve information – отримувати інформацію
database management program – програма управління базами даних
personal computer – персональний комп'ютер
local network – локальна мережа
IBM compatible – сумісний з обладнанням фірми IBM
vendor – продавець
hard disk – жорсткий диск

Exercise 2. Read the text and translate it.

Computers in Our Life

Everybody knows that computers can facilitate our everyday duties, work or study. But are you computer literate? Do you know the essential concepts in informatics? Can you work with a computer? These notes will help you to get some information about computers.

Computer hardware consists of a computer, a monitor, a keyboard, a printer, and their connections. The software contains the various programs you run on your computer. The most common programs used in business are those for word processing (writing letters, faxes, documents, contracts), spread sheets (for budgets and financial analysis), database management programs (for keeping names and addresses of customers), accounting (for bookkeeping), graphics programs (for drawing charts), communications programs (for electronic mail, Internet), desktop publishing programs (for producing manuals, catalogs); the operator keys in (types in) the information which can be saved and retrieved at a later date.

Most businesses nowadays use personal computers (or PCs), which are often linked together in a local network. This is a big change from the days when time had to be rented on mainframe computer. Nowadays these are only used by very large businesses, universities, or government departments.

The two most popular types of computers currently are those of IBM and Apple (the Macintosh). It was IBM who set the standard for the PC which others later imitated. That is why, in order to be able to use the widest range of software, a computer has to be IBM compatible.

The most successful software company now is Microsoft with its Windows programs for different years. Microsoft has done a good job of making Windows of each year compatible with software developed for previous versions of Windows, and with MS-DOS.

Prices for what is now considered the minimum standard for a new PC are hundreds of dollars more than they were just a couple of years ago.

PC makers have simply been selling desktop systems based on the Intel 486 processor. Nearly all new systems are now sold with an Intel Pentium processor. Laptop vendors are also carrying mostly Pentium systems. It is true that those newer models have a faster processor, more memory, a larger hard disk drive and a faster CD-ROM drive than previous models.

Exercise 3. Translate the sentences into Ukrainian.

1. New electronic technology is potentially the greatest educational innovation since the invention of the printing press. 2. The computer can project your actions in a special program for 50 year into the future and show the consequences. 3. Computers have two big problems to overcome: the high cost of the equipment and the opposition of some teachers. 4. Now small, self-contained microcomputers priced as low as 600 USD perform all the tasks needed by most. 5. Do computers actually help students learn better than traditional methods? 6.What software do you use while working with computer? 7. Have you saved the new information? Do you remember the file name?

Exercise 4. Make up sentences with the words and word combinations.

– hardware, software
– to connect, connection, connecting, connector
– to key in, to type in, a key, a typist
– to save (life, time, information, money)
– to retrieve (information, mistake, fortune), retrieval, retrievable

Exercise 5. What would you say if you took part in these conversations? Act them out.

A: Our firm bought 4 computers recently. But I don't know whether they will help us in our work. What do you think about it?

B: I suppose that … .

A: I know that computers are necessary for quick processing of information. But we have no modern software on our computers. Do you think it will influence the quality of our work?

B: I think … .

A: We have word processing, spreadsheets, database management, graphics, desktop publishing programs. But actually I can't understand why we need them.

B: I can help you … .

A: I can't save information on my computer. Could you explain how to do it?

B: Yes, with pleasure … .

A: Will you help me to print the information I've just saved as the file "march.doc"? What tools shall I use for it?

B: You should, first of all, … .

Exercise 6. Act as an interpreter in the conversation:

Mr. Rubin: Наша компанія планує забезпечити свій головний офіс 10 комп'ютерами. Я б хотів знати, яке апаратне та програмне забезпечення Ви б порекомендували нам використати?

Interpreter: … .

Mrs. Douglas: I would recommend you to use the newest software of Microsoft International, especially their last project for Windows. It's a reliable program with huge possibilities and modern tools. You can achieve good results with this software, I'm sure.

Interpreter: … .

Mr. Rubin: А як щодо апаратного забезпечення?

Interpreter: … .

Mrs. Douglas: I suppose Apple would be the best and the prices are competitive. They provide the clients with monitors, keyboards, printers and all the connections, and also they give 6-month guarantee for their goods.

Interpreter: … .

Mr. Rubin: Я знаю, що зараз багато програм, які допомагають вести бухгалтерію. Для чого конкретно може бути пристосована така програма?

Interpreter: … .

Mrs. Douglas: You can use such a program for budgets and financial analysis, for every day work of your Financial Department, for connection with your bank, etc.

Exercise 7. Conversation topics.

1. Computers in our everyday life: advantages and disadvantages.
2. Do you use a computer in your studies at college?
3. Is it necessary for a contemporary person to know how the computer works and how to use it?
4. In what cases is it more efficient to use a computer than to do the job without using it?
5. Can computers substitute teachers in school studies?
6. What possibilities will open to you while using computers?

II. Grammar Exercises

Exercise 1. Name the parts of speech of the following words, pay attention to their suffixes.
type – typical – typically
synthesis – synthetic – synthetically – synthesize
extract – extraction – extractive
form – formation – formal – formally
civilize – civil – civilization
herb – herbarium – herbaceous
preventive – prevention – prevent
identity – identification – identify – identical
select – selection – selective – selectively
effect – effective – effectively
prepare – preparation – preparative

Exercise 2. Read the following word combinations and translate them.
Technique of compounding drugs, preventive medicine, to collect herbs, collection of herbs, to identify plants, to select plants, to prepare complex substances, primitive man, old man, civilized person, in a simple way, a modified form, the twentieth century, contribute to chemistry, synthesis of enzymes, scientific observation, a drug action, biochemical analysis.

Exercise 3. Translate into Ukrainian. Mind the compound prepositions.
1. As to starch it was then recognized that it gave glucose when heated with dilute sulphuric acid. 2. In the most advanced countries the standard of nutrition of the population has improved due to carbon chemistry during the past fifty years. 3. According to the results of the investigation of the World Health Organization diseases and death from malnutrition in the developing countries are numerous. 4. Depending on the bases of the functional group carbon compounds are divided into several classes. 5. Many carbon compounds play a vital role due to their effect on the processes in the human body.

Exercise 4. Answer the following questions.
1. When do you usually go to your district polyclinic? 2. When does your district doctor see his patients? 3. What are the reception hours of your district doctor? 4. What does the registering clerk fill in? 5. What helps a doctor to make a proper diagnosis? 6. Where are patients X-rayed? 7. What may an X-ray examination of the chest reveal? 8. What did your X-ray examination reveal? 9. What does a doctor write in a patient's card? 10. What diseases did you suffer in your childhood? 11. Why must a patient follow the prescribed treatment? 12. When were you running a high temperature? 13. What do you do when you are running a high temperature? 14. Where must you keep the thermometer while taking your temperature? 15. When do you like to be out in the open air? 16. What do you do if you have a bad headache? 17. How long must you stay in bed if you are ill with influenza? 18. What helps to keep the fever down? 19. What were you ill with last year? 20. What does a doctor prescribe you if you have a sore throat? 21. When do you put a hot water bottle on your abdomen (feet)? 22. What does a doctor find out when he feels the patient's pulse? 23. When do you have a cold rubdown? 24. Why do you have a cold rubdown? 25. What diseases may cause complications? 26. What complications may influenza cause? 27. Why do doctors palpate a patient's abdomen?

LESSON THIRTY-EIGHT

I	**Control Test**	
II	**Speaking**	Medicinal Plants

I. Control Test

Variant 1

1. What topic unites the following words together? (Translate them.)

Scarlet fever, mumps, measles, influence, contagious, spread of infection, cough, treatment, care and nursing.

2. Match equivalents, name the topic.

surgery	оперувати
surgical	хірургія
operating	голка
operate	халат
operative	ускладнення
needle	хірургічний
gown	операційний
gloves	оперування
stitch	рукавички
reaction	шов

3. Fill in the blanks with the necessary words given in brackets.

1. You must take two ... before each meal. *(tablets, cough mixture, gargle)* 2. If you follow my ... , you will feel better tomorrow. *(physician, disease, instructions)* 3. When you have a toothache, you must consult ... . *(a nurse, a dentist, an oculist)* 4. ... operates on people. *(Therapeutist, Psychiatrist, Surgeon)* 5. The doctor put down everything she found into my mother's ... . *(note, patient's file, prescription)*

4. Use the Present, Past or Future Perfect Active Tenses in the following sentences. Translate them.

1. We often *(to use)* alcohol diluted with water as a solvent. 2. After French, Swedish and German chemists *(discover)* gallium, scandium and germanium, Mendeleev was recognized the author of the Periodic Law. 3. It is clear that the chemical reaction *(to change)* the composition and specific properties of this substance.

5. You've heard the following telephone conversation. Guess answers of the other speaker.

– Hello. This is Serge speaking. Can I speak to Nina?

– ... .

– Why! What's the matter with her?
– … .
– What is her temperature?
– … .
– Have you called in a doctor?
– … .
– What did the doctor say?
– … .
– What a pity! Give her my best wishes, please.
– … .
– I shall call on you the day after tomorrow. Good-bye!

Variant 2

1. What topic unites the following words together? (Translate the words.)
Substance, remedy, medicine, drugs, powder, tablet, tincture, solution, ointment, prescriptions and instructions, overdosage, plants.

2. Match equivalents, name the topic.

pain	поліклініка
toothache	видалити зуб
dentist	почуватись краще
afraid	біль
to hurt	зубний біль
trouble	занепокоєння
polyclinic	зубний лікар
to have a tooth out	боятися
immediately	негайно
to feel better	боліти

3. Fill in the blanks with the words *formed, drugs, number, branch, knowledge.*
1. Each period contributed to the store of … . 2. Chemist's shops increase in … from year to year. 3. The Pharmaceutical Society in Great Britain was newly … in 1841. 4. Pharmacy is defined as the science of … . 5. In Ukraine pharmacy as a … of science started its development in the eighteenth century.

4. Translate the following sentences. Name the form of the verb (its tense and voice).
1. The positive effect was associated with the low temperature. 2. Medicinal herbs were collected during our practice at botanical stations. 3. Drug effects will be described after a number of experiments.

5. Make up a story using the words: *to cough, illness, temperature, home visiting service, examination, to feel, prescription, medicine, to treat, certificate.*

Variant 3

1. What topic unites the following words together? (Translate the words.)

Passport data, pulse, blood pressure, temperature, breathing, strip to the waist, listen to the heart and lungs, catch a cold, running nose.

2. Match equivalents, name the topic.

wheelchair	підкладне судно
air ring	напувальник
syringe	ножиці
scissors	грілка
dropping bottle	крісло-каталка
hot water bottle	міхур для льоду
bedpan	шприц
bandage	банки
cups	пляшечка з дозатором
feeding cup	бинт

3. Fill in the blanks with prepositions where required.

... Tuesday we had our practical studies ... surgery ... the surgical department ... the regional hospital. Patients are admitted ... this hospital ... different parts ... the region. Just ... our practical studies the helicopter landed ... the hospital yard. It turned ... to be an urgent case ... perforated ulcer ... the stomach. The patient was operated ... immediately.

4. Translate the sentences. Name the forms of the verbs (tense and voice).

1. The work at the hospital helps students acquire deep knowledge of nursing. 2. Thousands of future specialists are trained at higher educational establishments. 3. Chemical and physical properties of inorganic substances were thoroughly studied during practical chemistry classes. 4. The industrial revolution of the last century gave birth to new treatment of this disease.

5. Answer the questions:

1. What medical professions do you know?
2. What do these specialists do?
3. What doctor treats you when you are ill?
4. Do you know people who work in medicine? Who are they? What are they?
5. Did you play "a hospital" when you were a child?
6. Do you know pupils who are going to work in medicine? Who are they?
7. Why are medical professions often called the most humanistic?

II. Speaking: Medicinal Plants

Exercise 1. Read the words of Greek and Latin origin. Pay attention to the pronunciation.

Capsule ['kæpsju:l], codeine ['kəʊdi:n], papaverine [pə'peivə,ri:n], active ['æktiv], psychological [saikə'lɒdʒikəl], alkaloid ['ælk(ə)lɔid], practical ['præktikəl], natural ['nætʃrəl],

detective [di'tektiv], continent ['kɒntinənt], fruit [fru:t], microbe ['maikrəʊb], collect [kə'lekt], factor ['fæktə], collection [kə'lekʃn], vegetative ['veʤitətiv], process ['prəʊses], photosynthesis [ˌfəʊtəʊ'sinθisis], period ['piəriəd], constituent [kən'stitjʊənt], produce [prə'dju:s], oxydation [ˌɒksi'deiʃn], activity [ək'tiviti], pharmacological [ˌfɑ:məkə'lɒʤikəl], opium ['əʊpjəm], globular ['glɒbjʊlə], elliptical [i'liptikəl], conical ['kɒnikəl], aromatic [ˌærəʊ'mætik], balsamic [bɔ:l'sæmik], camphorous ['kæmfərəs], sensation [sen'seiʃn], official [ə'fiʃəl], standard ['stændəd], reserpine ['resəpin], valerian [və'liəriən], chromatographic [ˌkrəʊmətə'græfik], separate ['sepəreit], inert [i'nɜ:t], herb [hɜ:b], herbal ['hɜ:bəl], strychnine ['strikni:n], caffeine ['kæfi:n], crystalline ['kristəlain].

Exercise 2. Read and translate the following words and word combinations.

Herbs and plants, to collect in autumn, five continents and seas, detectives of plants, a plant detective, the time of collecting plants, active constituents, the time of flowering, the weight of the drug, taste, color and odor of plants, to depend upon the amount of volatile constituents, to describe plants, to possess no taste, to possess a characteristic odor, to give name to something, to use different tests and methods, the determination of presence of inorganic elements, a chemical analysis for the determination of activity, chromatographic study, inert materials, herb books, to make the acquaintance of many herbalists, published materials, the development of science.

Exercise 3. Group these common root words, name the parts of speech.

Increase, detective, medicine, herbal, constitute, differ, taste, oily, lightness, oil, decrease, herbalist, constituent, different, light, herb, detect, tasteless, official, determine, chromatography, development, mix, weight, officially, chromatographic, weigh, medicinal, science, determination, develop, use, scientific, alkaloidal, treatment, treat, useful, scientist, useless, alkaloid, mixture.

Exercise 4. Learn active words.

a) Parts of a plant:

root [ru:t] корінь
rhizome ['raizəʊm] кореневище
stem [stem] стебло; стовбур
seed [si:d] насіння
inflorescence [ˌinflɒ'resəns] суцвіття
bark [bɑ:k] кора
fruit [fru:t] плід
top [tɒp] верхівка

b) Taste and odor (смак і запах):

distinct [dis'tiŋkt] особливий; виразний, чіткий
spicy ['spaisi] пряний; гострий
bitter ['bitə] гіркий
agreeable [ə'griəbl] приємний
mucilaginous [ˌmju:si'læʤinəs] слизистий, клейкий
astringent [ə'striŋʤənt] в'яжучий
pungent ['pʌnʤənt] гострий, пікантний

c) Form and color (форма й колір):

shape [ʃeip] форма
round ['raʊnd] круглий
oblong ['ɒblɒŋ] продовгуватий, видовжений
elliptic(al) [i'liptik(əl)] еліптичний
broad [brɔ:d] широкий
pale [peil] блідий

d) Growth and gathering (ріст і збір):

pollination [ˌpɒliˈneiʃn] запилення
ripen [ˈraip(ə)n] дозрівати, достигати
moisture [ˈmɔisʧə] волога; вологість
harvest [ˈhɑ:vist] жнива; збирання врожаю
mature [məˈtjʊə] зрілий; стиглий

Exercise 5. Answer the questions using new words.

1. What parts of a plant may have odor? 2. What color is the bark? 3. Do all plants have roots and rhizomes? 4. Does every plant produce seeds? 6. Where are flowers usually situated? 7. What taste of fruit do you like more?

Exercise 6. Complete the sentences.

1. The season when fruits or vegetables are gathered is called … . 2. A full-grown plant is called … 3. The part of a plant which grows under the surface of the earth is called … . 4. A great number of small flowers which grow together is called … 6. To separate things of one class from things of another class means … . 7. A small objet produced by a flowering plant from which another plant may grow is called… .

Exercise 7. Answer the alternative questions.

1. Do you like your food to be very or slightly salty? 2. Do you like bitter apples or sweet ones? 3. Is it possible or not to determine a pungent taste? 4. What season do you like more – autumn when fruits ripen or spring when first flowers appear? 5. Do botanists collect fully matured seeds or unripe ones? 6. Are you acquainted with the technique of gathering herbs or their cultivation? 7. Did you gather plants with roots and rhizomes or the overground part of them? 8. What is more difficult: to maintain a high temperature or a low one during the experiment?

Exercise 8. Read the text, make up a plan to it.

Medicinal Plants

Since time immemorial man has known about the medicinal properties of plants and widely used them for all practical purposes. At present the attention to medicinal plants as natural sources of drugs has greatly increased. Ten thousand plant detectives try to find new plants possessing medicinal properties on five continents and all seas.

Different parts of a plant may be used for medicinal purposes: roots and rhizomes, fruits and seeds, flowers and inflorescences, stems and leaves. All these parts are collected in a certain period of time.

It is well-known that the proper time of harvesting or collecting plants and herbs is during that period when active constituents of the plant are highest in their number and quality. Roots and rhizomes are collected in autumn after the vegetative processes have finished. Bark is collected in spring before these processes begin. Leaves and flowering tops are collected when photosynthesis is most active which is usually about the time of flowering and before the maturing of the fruit and seed. Flowers are collected in the time of pollination. Fruit may be collected either before or after the ripening period. Seeds may be collected when fully matured.

Proper storage and preservation are an important factor in maintaining a high degree of quality of the drug. Thus, too much moisture increases the weight of the drug, decreases the

amount of active constituents. Air and light affect drugs, which are strongly colored, producing changes in constituents of drugs.

All parts of the plant differ as to the shape, taste, color, odor, and pharmacological activity. Thus, the usual shapes for fruits and seeds are globular, elliptical, ovoid, conical, etc. The odor of a drug of plant origin may be either distinct or indistinct, depending upon the amount of volatile constituents the drug possesses. It is described as aromatic, balsamic, spicy, camphorous, etc. When it is difficult to compare the odor with other substances, it is described as characteristic.

According to taste substances may be classified into four groups:

1) those possessing a true taste, such as acid, sweet, alkaline, bitter;

2) those possessing no taste and thus being tasteless;

3) those possessing a characteristic odor which gives name to the so-called "taste". They may be grouped broadly into those which are agreeable or pleasant (aromatic, balsamic, spicy) and disagreeable or unpleasant (alliaceous, camphorous, etc.);

4) those giving certain sensation to the tongue. Such substances may be classified as mucilaginous, oily, astringent, pungent, acrid, nauseous.

The taste, color and odor of drugs are officially standardized with the help of drug description. are of the lightness and strength of the color. Reserpine is described as "a white or pale to slightly yellowish, odorless, crystalline powder". Olive oil is described as "a pale yellow liquid which sometimes has a greenish tint"; rhizome and roots of valerian as "light brown or yellow brown, odor strong and peculiar, taste – spicy, sweetish-bitterish".

Pharmacological activity of certain drugs is established using different tests and methods, such as chemical analysis for the determination of presence of inorganic elements, a chemical analysis for the determination of the official activity, chromatographic study to separate and analyse constituents and inert materials occurring in drugs.

Exercise 9. Read the sentences. Add attributes to the underlined words.

1. Parts of a plant such as roots, rhizomes, fruits, bark, seeds, flowers, leaves, etc. may be used for medicinal purposes. 2. The time of harvesting or collecting plants and herbs is during the period when active constituents of a plant are highest in their number and quality. 3. It is necessary to store and preserve medicinal plants properly in order to maintain the degree of quality of the drug. 4. The presence of moisture decreases the amount of their constituents. 5. It is not difficult to compare odors. 6. Reserpine is described as a powder. 7. Olive oil sometimes has a tint. 8. The activity of certain drugs is established using different tests and methods.

Exercise 10. Complete the sentences.

1. Flowers are collected … . 2. Bark is collected in the spring before … . 3. Roots and rhizomes are collected in autumn after … . 4. Man has known about the medicinal properties of plants since … . 5. Ten thousand plant detectives try to find new plants which … . 6. Fruits may be collected either before or after … . 7. Seeds may be collected when … . 8. Odor is described as characteristic when … .

Exercise 11. Fill in the blanks with the words given below.

1. The odor of a rose is described as … . 2. The usual … for fruits or seeds is globular. 3. The odor of a drug of plant origin depends upon the amount of … constituents. 4. Olive oil is described as a pale yellow … which sometimes has a greenish tint. 5. The psychological … of

opium plant was known to the ancient population of many south-eastern countries. 6. Garlic is used in the treatment of many ... in a pure state or as a compound or mixture. 7. Due to modern laboratories it can be shown how garlic ... microbes.

(liquid, effect, agreeable, shape, affect, disease, volatile)

Exercise 12. Read the sentences, use the verbs in the correct form (indefinite or perfect).

1. In Bulgaria and the Caucasus there is a great number of people who *(to live)* to the age of 100 and are still active. 2. Investigations of scientists on the activity of garlic *(to make)* garlic oil very popular since that time. 3. Experiments on the medicinal properties of plants *(to show)* that some of their constituents are very active against microbes. 4. Last season our botanical station *(to pay)* special attention to the proper storage of herbs. 5. Second-year roots usually *(to contain)* high properties of alkaloids. 6. By 1906 Russian botanist Tswett *(to publish)* a description of the technique for separating pigments of green leaves.

Exercise 13. Discuss the text answering the questions.

1. What facts prove that the attention to medicinal properties of plants has greatly increased at present? 2. How can you define fruits and seeds? Roots and rhizomes? 3. What period do we call "proper time of harvesting"? 4. Are different parts of plants and herbs gathered at different periods? Give some examples. 5. Why is it necessary to gather medicinal plants at proper time? 6. What factors affect the amount and quality of plant constituents? 7. What odor do we call "characteristic"? 9. Into what groups are medicinal herbs divided according to taste? 10. How is pharmacological activity of certain drugs established?

Exercise 14. Tell your pen friend about medicinal plants according to the plan.

1. Medicinal plants as a source of drugs.
2. The attention to medicinal plants has increased in the present period.
3. The use of different parts of plants for medicinal purposes.
4. Proper storage and preservation of medicinal plants.
5. Taste, color and odor and their role in the description of plants.

LESSON THIRTY-NINE

Control Test

1. To have a heart of ___ means to be very kind.
   A. silver
   B. stone
   C. bronze
   D. gold
   E. iron

2. ___ is made of dead and weakened germs.
   A. A drug
   B. A chemical
   C. A medicine
   D. A vaccine
   E. A serum

3. ___is a written order for medicine.
   A. A label
   B. A sick list
   C. A direction
   D. A prescription
   E. An instruction

4. ___like doors, will open with ease.
   A. Wounds
   B. Hospitals
   C. Heart
   D. Hearts
   E. Windows

5. You use ___ when you are nervous.
   A. a laxative
   B. a sedative
   C. an antiseptic
   D. an adhesive
   E. an antibiotic

6. A nurse must ___ her feelings.
   A. speak
   B. control
   C. show
   D. understand
   E. demonstrate

7. A person who has ___ may have a running nose.
   A. a fever
   B. a headache
   C. a flu
   D. a stomachache
   E. a toothache

8. Another name for sickness is ___.
   A. ache
   B. pain
   C. disease
   D. virus
   E. happiness

9. ___ when you feel bad.
   A. Get an injection
   B. Write in your chart
   C. Take your temperature
   D. Drink tea
   E. Have a snack

10. A nurse observes changes in patient's ___.
   A. feelings
   B. condition
   C. look
   D. state
   E. all of the above

11. A doctor ___ patients.
   A. prescribes
   B. examines
   C. works
   D. observes
   E. chooses

12. One can take ___ in case of pain.
   A. a sedative
   B. an antiseptic
   C. a laxative
   D. a syringe
   E. an analgetic

13. A doctor usually gives a patient ___ before surgery.
   A. an anesthesia
   B. a sedative
   C. a laxative
   D. an antibiotic
   E. a tablet

14. ___ disease is a disease you get from another person.
   A. A child
   B. An infectious
   C. A heart
   D. A cardiovascular
   E. A lung

15. A nurse ___ doctor's instructions.
   A. gives
   B. sees

C. carries out
D. begins
E. does

16. ___ is a wonderful organ that works every moment of your life.
A. Pulse
B. The heart
C. Blood
D. Blood pressure
E. The head

17. When a nurse takes your pulse, she ___ note the strength of beating.
A. can
B. is to
C. must
D. will
E. may

18. All child's diseases are caused by ___
A. germs
B. viruses
C. antibodies
D. chemicals
E. bacilli

19. If a person has ___ , he/she may complain of headaches, nosebleedings, heartaches.
A. hypotension
B. anemia
C. hypertension
D. low BP
E. dystonia

20. A nurse takes ___ of people who are sick.
A. medicine
B. condition
C. care
D. walk
E. cups

21. A doctor prescribes ___ to patients.
A. drops
B. drugs
C. injections
D. pills
E. medicine

22. A nurse must be a ___ person.
A. worried
B. surgical
C. good
D. happy
E. sad

23. A doctor examines the patient's body during ___.
A. treatment
B. checkups
C. checking
D. work
E. practice

24. ___ is what you can do to become healthy.
A. Curing
B. Getting treatment
C. Taking medicine
D. Medicine
E. Smoking

25. To be born with a silver spoon in one's ___.
A. heart
B. throat
C. mouth
D. head
E. nose

26. A doctor asks questions about your ___.
A. body
B. mood
C. illness
D. disease
E. health

27. You can ___ a doctor when you are sick.
A. to go to
B. go to

C. to visit
D. visit
E. to come

28. ___ is a signal that you may be sick.
A. A disease
B. A fever
C. A symptom
D. A virus
E. An alarm clock

29. A drug is a___ that changes the way your body works.
A. substance
B. remedy
C. medicine
D. chemical
E. tablet

30. A doctor does ___ on a patient.
A. surgery
B. nursery
C. treatment
D. work
E. experiment

31. While ___ blood pressure you must think of the patient's age.
A. measuring
B. taking
C. checking
D. analyzing
E. giving

32. ___ is a type of medicine to make antibodies.
A. A drug
B. An injection
C. Remedy
D. A vaccine
E. A substance

33. Hypotension is a rather serious ___
A. complication
B. dangerous
C. pain
D. disease
E. thing

34. A doctor ___ treatment to you.
A. prescribes
B. gives
C. consults
D. prescription
E. examines

35. Drugs can be used to ___ your condition.
A. save
B. ease
C. protect
D. improve
E. relieve

36. To see the heart's work you must have an ___.
A. EG
B. electrocardiogram
C. ECC
D. pH
E. X-rays

37. When you take the pulse, you must remember about ___.
A. the head
B. the heart
C. the vibration
D. the rhythm
E. the doctor

38. When you have a running nose, you take___.
A. a mixture
B. an ointment
C. an infusion
D. drops
E. a paper tissue

39. ___ may cause hypotension.
A. Laugh
B. Fatigue

C. Sleep
D. Weather
E. Rain

40. Another name for sickness is ___.
A. ache
B. pain
C. disease
D. virus
E. health

41. A rise in the body temperature is ___.
A. flu
B. fever
C. chickenpox
D. cold
E. worring

42. We get emergency help when we become ill in ___.
A. a ward
B. a community
C. a house
D. a hospital
E. an office

43. People who have a ___ can have chills and body aches.
A. flu
B. cold
C. fever
D. disease
E. work

44. A disease with red spots on the skin is ___.
A. quinsy
B. chickenpox
C. measles
D. rickets
E. flu

45. When you have a ___ throat, you must gargle it.
A. weak
B. sore
C. pain
D. ache
E. red

46. You can ___ your heart by exercising.
A. control
B. strengthen
C. listen
D. care
E. hear

47. To have a running nose means to have ___.
A. a cough
B. a cold in the head
C. a fracture
D. a sunstroke
E. a nosebleed

48. ___ is the body's ability to keep from getting a certain infectious disease.
A. Antibodies
B. Condition
C. An immunity
D. Disease agent
E. Laugh

49. One must take care of personal ___.
A. immunity
B. hygiene
C. body
D. heart
E. computer

50. ___ works due to arteries, veins, capillaries.
A. Blood
B. Blood cells
C. Heart
D. Pressure
E. Vessels

51. Heart diseases mean ___ diseases.
A. heart valve
B. cardiovascular

C. congenital
D. heart muscle
E. infectious

52. After heavy exercises the pulse is ___.
A. faster
B. slower
C. better
D. normal
E. absent

53. ___ can cause side effects.
A. Drugs
B. Medicine
C. Complications
D. Vaccine
E. Overdosage

54. People with scarlet fever have ___.
A. a flushed face
B. a rash
C. red spots
D. spots
E. a smiling face

55. ___ means an injury.
A. An ache
B. A wound
C. A pain
D. A disease
E. An accident

56. Patients can have postoperative ___.
A. condition
B. pain
C. reaction
D. operation
E. work

57. All surgical instruments must be ___.
A. clean
B. sterile
C. dirty
D. antiseptic
E. on the table

58. Rest is important for patients with ___ diseases.
A. child's
B. infectious
C. heart
D. lung
E. renal

59. When the nurse applies ___, she must wear a mask.
A. changes
B. dressings
C. gloves
D. a gown
E. syringes

60. Everyone can ___ an infectious disease.
A. observe
B. see
C. prevent
D. feel
E. watch

LESSON FORTY

Independent Reading

1. Health Service in Ukraine.
2. Doctors and Patients.
3. Medicine and Health Care.
4. Computers Concern You.
5. Hobbies and Leisure Time Occupations.
6. Are You Left-Handed?
7. Vegetarians.

1. Health Service in Ukraine

In Ukraine medical help is available in hospitals, polyclinics, and also in medical centers in such places as factories and schools.

Health service is based on local therapeutists as they are the first to diagnose. Some certain district is appointed to a polyclinic and this district is divided into several areas. Each area is appointed to a certain therapeutist. All the people who live in that area visit their appointed doctor. An average number of people, visiting their doctor every day, is 20–25, but when there is an epidemic of cold, this number is 50–60 people a day. There is some tendency which is nowadays widely discussed, that a person him- or herself can choose the doctor he or she wants to visit. A person can call his local therapeutist so that the doctor will come and see his patient.

A therapeutist examines a patient, assigns some treatment, prescribes some medicines and gives a medical certificate.

In a hospital there is also a therapeutic department, where pneumonia, bronchitis or asthma are treated. There also exists a wide network of ambulance service in Ukraine. It was founded in Kharkiv in 1905.

Nowadays there are a lot of paid clinics where one can get any kind of medical help. Many of them are specialized: dentist offices, eye care centers, etc.

There also exist some medical associations in Ukraine, such as Ukrainian Diabetes Association. About 1 million people in Ukraine suffer from this disease. In this association people can get medical help or medicines free of charge.

2. Doctors and Patients

An ordinary doctor (sometimes called G.P., i.e. general practitioner) is sometimes a physician or a surgeon (i.e. able to perform operations), and quite often he is both physician and surgeon. But if the illness is serious, or the operation a big one, he will advise you to get a specialist. You will go to the specialist or he will come to you, and if you must have an operation, he will advise you to go to a hospital or a nursing home where they will have all the necessary equipment.

If your teeth need attention, stopping, filling, or extracting, or if you need false teeth (dentures), then you go to the dentist.

Common illnesses are: cough, cold, influenzà (flu), sore throat.

Children often get: measles (including "German" measles), mumps, scarlet fever and whooping cough. You can generally know that a child is not well if he/she has a temperature (i.e. it is above the normal 93.4° Fahrenheit).

Older people suffer from indigestion, rheumatism, heart troubles and blood pressure.

Some diseases are infectious or contagious, and great care must be taken by people who have these illnesses so that they don't pass them on to other people.

You may have toothache, stomachache, headache, earache. All these give you pain. Then you may get a bum, a scald, or a wound; you may get blood poisoning, or break a bone.

Some of the commonest things used to prevent or cure illnesses are medicines: pills, powders, ointments, sleeping draughts, injections, bandages, tinctures, disinfectants, antiseptics, tablets, drops and others.

Even in medical clinics you'll sometimes have to wait for some time before you see a doctor.

The advantage of a medical clinic over a regular doctor's office is that you don't have to wait for an appointment. Patients are seen on a first come, first served basis.

Doctors aren't supposed to dispense drugs other than free samples. What your doctor gives you is a prescription for medicine and you'll have to go to a pharmacy, a drug store, or to a chemist's.

Sometimes a pharmacist will call your doctor to confirm the dose or nature of prescription.

In most American cities you can find quick medical care at what are called "walk-in medical clinics". If you're sick and don't have a doctor, such clinics can provide prompt and relatively inexpensive treatment for minor illnesses.

3. Medicine and Health Care

In the final decades of the 20th century, Americans increasingly view good health as something to which they have a right. They believe they have a right to good health because widespread advances in medical research have made it possible to treat many previously "untreatable" diseases. These rising expectations regarding health care in the United States are the result of vastly increased medical knowledge and the belief that in an affluent and democratic society all people should have access to well-trained physicians, fully equipped hospitals and highly sophisticated procedures for the treatment of disease.

Physicians

Self-employed private physicians who charge a fee for each patient visit are the foundation of medical practice in the United States. Most physicians have a contractual relationship with one or more hospitals in the community. They send their patients to this hospital, which usually charges patients according to the number of days they stay and the facilities (operating room tests, medicines) that they use. Some hospitals belong to a city, a state or in the case of veteran's hospitals a federal government agency. Others are operated by religious orders or other non-profit groups. Still others operate for profit.

Some medical doctors are on salary. Salaried physicians may work as hospital staff members, or residents, who often are still in training. They may teach in medical schools, be hired by corporations to care for their workers or work for the federal government's Public Health Service.

Physicians are among the best paid professionals in the United States. In the 1980s, it was not uncommon for medical doctors to earn incomes of more than $ 100,000 a year. Specialists, particularly surgeons, might earn several times that amount. Physicians list many reasons why they deserve to be so well rewarded for their work. One reason is the long and expensive preparation required to become a physician in the United States. Most would-be physicians first attend college for four years, which can cost nearly $ 20,000 annually at one of the best private institutions. Prospective physicians then attend medical school for four years. Tuition alone can be more than $10,000 a year. By the time they have obtained their medical degrees, many young physicians are deeply in debt. They still face three to five years of residency in a hospital, the first year as an intern, an apprentice physician. The hours are long and the pay is relatively low.

Setting up a medical practice is expensive, too. Sometimes several physicians will decide to establish a group practice, so they can share the expense of maintaining an office and buying equipment. These physicians also take care of each other's patients in emergencies.

Medical Costs

Physicians' fees are only one reason for rising health costs in the United States. Medical research has produced many tests to diagnose, or discover patients' illnesses. Physicians usually feel obliged to order enough tests to rule out all likely causes of patient's symptoms. A routine laboratory bill for blood tests can easily be more than $ 100.

Sophisticated new machines have been developed to enable physicians to scan body organs. One technique involves the use of ultrasound to produce images. Others use computers to capture and analyze images produced by X-rays or magnetic fields.

4. Computers Concern You

When Charles Babbage, a professor of mathematics at Cambridge University, invented the first calculating machine in 1812, he could not even imagine the situation we find ourselves in today. Nearly everything we do in the modern world is helped, or even controlled, by computers. Computers are used more and more extensively in the world today for the simple reason that they are far more efficient than human beings. They have much better memories and can store huge amounts of information, and they can do calculations in a fraction of the time taken by a human mathematician. No man alive can do 500,000 sums in one second, but an advanced computer can. In fact, computers can do many of the things we do, but faster and better.

Many people associate computers with the world of science and mathematics, but they are also a great help to scholars in other subjects: in history, literature, medicine and so on. It's now possible for a scholar to find a book or article he needs very quickly, which, when a million or more new books are published each year, is quite an advantage. So computers can help us to deal with the knowledge explosion in many ways.

5. Hobbies and Leisure Time Occupations

From the old English word *hobby* meaning horse, came the modern word *hobbyhorse.* This is a dummy horse attached to a performer who pretended to be riding a horse in a play or a dance. Hobbyhorse has been shortened to hobby to describe any favorite leisure time occupation. This word has become rather common in modern usage.

Leisure time occupations, or hobbies, can be divided into four groups: doing things, making things, collecting things and learning things. Of these four groups, doing things is perhaps the most popular. It includes a wide range of activities, from gardening to sailing and from chess to foreign travel. Some of these hobbies require very little equipment while others require considerably more. There is also a choice between mental and physical activities, indoor and outdoor pursuits, etc.

Leisure time occupations can be more or less active. A real hobby is usually defined as something creative and individual, sometimes even as something obsessive, unusual or eccentric.

Even if one's hobby does not solely consist of the study of particular subjects, a real hobbyist wants to learn more about his chosen subject and its history, so that he can become a real expert at it.

Outdoor Activities or Activities outside the Home

Sports activities: athletics, gymnastics, cycling, swimming, sailing, rowing, canoeing, racing, skiing, mountaineering, climbing.

Playing games: football/soccer, handball, volleyball, tennis, table tennis, basketball, baseball, water polo, golf, badminton, bowling, judo, fencing, boxing and taking part in competitions.

Other activities: gardening, fishing, traveling (e.g. visiting the countryside, the seaside, museums, art exhibitions, historical places), walking, driving a car, car maintenance, singing in a choir, watching outdoor sports, betting on matches or races.

6. Are You Left-Handed?

Life is easier if you're right-handed. You can open a can of tomatoes, use a pair of scissors or write a cheque without problems. People won't think that you're strange, and you'll be one of the 90 % of people who use their right hand more than their left. Many animals are "right-handed" or "left-handed" too; what is interesting about human beings is that many choose to be right-handed. What makes us different?

In earlier times left-handed people were sometimes thought to be bad or even dangerous and were sometimes even killed. Quite recently, children who wanted to use their left hands were taught to use their right instead. The teacher of King George VI of England (1895–1952) tied his left hand behind his back to make him use his right, and it was probably because of this that he had speech problems later in his life. However, modern ideas about how children use their hands are very different. Some doctors now think that the choice is made when babies are still very young. Look at this advice from a modern book for parents.

There is no natural law which states that one hand is superior to the other so it should never bother you if your child is left-handed. You may think that by "encouraging" your child to use his right hand instead of his left one you're doing him a favor for later life so that he'll never have to suffer the minor annoyances of right-handed potato peelers or scissors. You are not.

And, what's more, you could well risk causing psychological side-effects like stuttering as well as reading and writing difficulties by altering what your baby's brain naturally wants to do.

But why is anyone left-handed? Why aren't we all right-handed or perhaps 50 % right-handed and 50 % left? Psychologist Dr. Marian Annett thinks that a long time ago people used both hands equally; what changed things was that human beings learned to speak.

The left hemisphere controls the right-hand side of the body and the right controls the left. Speech became connected to the left hemisphere of the brain; and as speech became more and more important, so the left hemisphere became more and more powerful. As the left hemisphere became more important, so the right-hand side of the body was used more; right-handedness became more common, and the functions of the right hemisphere became weaker. This means that left-handers are often slower to speak and read than right-handers. But left-handed people have advantages too.

According to recent scientific theories, left-handed people have a better chance of becoming great sportsmen. Did you know that majority of tennis, table tennis, fencing and boxing champions are left-handed? Left-handed people's brains work better and more quickly. This characteristic is very important in individual sports and in those like tennis, table tennis, boxing and fencing where players move closer or further away during the game. In these fields, the athletes' reaction times are of fundamental importance and a left-handed person can think quicker than his adversary.

Left-handedness emerges most strikingly in the arts; back in the Renaissance, Leonardo da Vinci, Michelangelo and Hans Holbein were all notable left-handers.

The most famous left-handed person of all times is Leonardo da Vinci. He invented a system of writing which went from right to left which was much more suited to him than the traditional method. There are even famous left-handed people in the world of music like Beethoven and Paganini. Add talented individuals such as Paul Klee, Charlie Chaplin, Lenny Bruce, Greta Garbo, Marilyn Monroe, Marcel Marceau, Jimi Hendrix — and you are bound to conclude that lefties have as strong a set of advantages as handicaps.

7. Vegetarians

The word "vegetarians" was coined about 1840 to mean people who lived without killing for food, either for normal or health reasons, or both. But the practice is much older than that. Greek philosophers recommended vegetarianism and famous people who practised it in the past include Leonardo da Vinci, Tolstoy and Voltaire, Milton, Newton and Bernard Shaw. Surely this proves that mental activity does not depend on flesh foods. What are the arguments that might stop us from eating meat?

Man's body is more like those of fruit-eating animals (such as our "cousins" the apes) that like those of flesh eating animals. For millions of years a man must have lived on fruit, nuts and leaves and so developed a digestive system. Perhaps the more we move away from this diet towards meat-eating, the less likely we are to be healthy. Cancer, tuberculosis and heart diseases are certainly more common in meat-eating communities. Man may have started eating the flesh of animals during the Ice Age when most of vegetation was destroyed.

A diet of vegetables, fruit, grains and nuts together with a few dairy products can give us all the vitamins and minerals we need. By eating meat we are getting the basic food elements secondhand after they have been digested by the animal. It is worth considering how wasteful meat-eaters are with land. A meat-eater needs about three times as much land to support himself and his animals as a vegetarian does. For every 45 kilos of dry food eaten by cattle only 1.8–7.3 kilos come back as food for us, humans – an expensive method of producing food.

PART THREE
HUMAN BODY SYSTEMS
(in Anatomy, Pathology and Pharmacology)

UNIT ONE

I	**Speaking**	Human Body
II	**Grammar**	Revision

I. Speaking: Human Body

After careful study of this unit, you should be able to:
– define the terms of anatomy, physiology, and pathology;
– describe the organization of the body from cells to the whole organism;
– name 10 body systems; give the general function of each;
– define metabolism and other processes;
– differentiate between extracellular and intracellular fluids;
– briefly explain the role of ATP in the body;
– list and define the main directional terms for the body.

Exercise 1. Learn the following words and word combinations.
anabolism [ə'næbə,lizəm] анаболізм
anatomy [ə'nætəmi] анатомія
ATP [eiti:pi:] (adenosine triphosphate [æ'dɛnə,si:n,trai'fɔsfeit]) АТФ (аденозин-трифосфорна кислота)
catabolism [kə'tæbə,lizəm] катаболізм
cell [sel] клітина
homeostasis [,həʊmiəʊ'stəisis] гомеостаз
metabolism [mə'tæbə,lizəm] метаболізм
organ ['ɔ:gən] орган
pathology [pə'θɔlədʒi] патологія
physiology [,fizi'ɔlədʒi] фізіологія

tissue ['tisju:] тканина
muscular ['mʌskjulə] м'язовий
systems ['sistemz] системи (органів):
circulatory [ˌsə:kju:'ləitəri] кровообігу
digestive [di'ʤestiv] травна
respiratory ['respərəˌtɔ:ri] дихальна
integumentary [inˌtəgju:'mentəri] покривна
urinary['jʊərinəri], excretory [eks'kri:təri] сечовидільна
nervous ['nə:vəs] нервова
endocrine ['endəʊkrain] ендокринна
glands [glændz] залози
hormones ['hɔ:məʊnz] гормони
reproductive [ˌri:prə'dʌktiv] відтворювальна, статева

Exercise 2. Read the text.

Everyone is interested in the body and how it works. Anatomy studies the body structure. Physiology is the term for the study of how the body functions. These two sciences are closely related. They form the basis for all medical practice.

Any changes in the structure of the body or its functions are considered a disease and are studied as a science of pathology.

All living things are organized from very simple levels to more complex levels. Living matter begins with simple chemicals. These chemicals are formed into complex substances that make living cells – the basic units of all life. Specialized groups of cells form tissues, and tissues may function together as organs. Organs make up systems of organs, which maintain the body.

There are following systems of organs in the body:

– skeletal system (it supports the body);

– muscular system (it allows the body to move);

– circulatory system with lymphatic system transport nutrients, oxygen and other substances to the body cells and carry away waste materials;

– digestive system (it takes food in and converts it into substances that the body cells can use);

– respiratory system (it takes oxygen in and releases carbon dioxide from the blood);

– integumentary system means the skin and its appendages: hair, nails, sweat and oil glands;

– urinary or excretory system (it eliminates waste products and water);

– nervous system (it receives stimuli and controls responses; memory and reasoning also belong to the nervous system occurring in the brain);

– endocrine system (it produces hormones for regulation of growth, metabolism, reproduction);

– reproductive system is concerned with the production of offsprings.

All the chemical reactions needed to sustain life we call metabolism. Metabolism can be divided into two types of activities: catabolism and anabolism.

Catabolism is the breakdown of complex substances into simpler ones. Anabolism is the building of body materials.

The energy obtained from the breakdown of nutrients is used to form a compound of the cell we call ATP (adenosine triphosphate).

There are many kinds of fluids in the organism. Extracellular fluids carry nutrient substances to and from the cell, bathe the cell, transport substances in and out of the cell. Intracellular fluid is in the cell.

Homeostasis is the steady state of the organism that maintains a state of balance within the body: body temperature, composition of body fluids, heart rate, respiration rate, blood pressure. Homeostasis is maintained by feedback. Any changes in the body balance lead to norm violation, this mechanism is described as negative feedback.

Exercise 3. Text exercises.

1) Translate the text, title it.

2) Write out the underlined words, add them to your vocabulary, translate them.

3) Ask your fellow student about each system of the body and its functions in the organism.

Exercise 4. Find Latin or Greek equivalents of the English words:

body	skeleton	respiration	brain
organ	muscle	lung	gland
system	heart	skin	man
tissue	blood	urine	woman
cell	digestion	nerve	function

Exercise 5. Are the sentences true or false?

1. Anatomy is the study of how the body functions.
2. Pathology is the science of diseases.
3. The smallest unit in the organism is the cell.
4. An organ is the unity of tissues that functions together.
5. Homeostasis is the balance in the organism.
6. Intracellular fluid carries nutrients to the cells.

Exercise 6. Answer the following questions:

1. What are three studies of the human body?
2. What is the cell? Tissue? Organ? System? (Give the definitions.)
3. Can you name 10 systems of organs? What are they?
4. What is metabolism?
5. What is the difference between anabolism and catabolism?
6. What is ATP?
7. Can you give an example of homeostasis? How does homeostasis maintain?
8. What do we mean by "negative feedback"?

II. Grammar Exercises

Exercise 1. Write affirmative or negative sentences. Use *am/am not; is/isn't; are/aren't.*

1) *(Paris/the capital of France)* *Paris is the capital of France.*
2) *(I/interested in football)* *I'm not interested in football.*
3) (I/hungry) I.....
4) (it/warm today) It.....
5) (Rome/in Spain) Rome.....
6) (I/afraid of dogs) I.....
7) (my hands/cold) My.....
8) (Canada/a very big country) .....
9) (the Amazon/in Africa) .....
10) (diamonds/cheap) .....
11) (motor-racing/a dangerous sport) .....
12) (cats/big animals) .....

Exercise 2. Open the brackets and put the personal pronouns in the appropriate form.

1. This medicine will give *(they)* an instant relief. 2. The doctor prescribed *(he)* a proper treatment. 3. Do you know *(we)* district doctor? – Yes, I know *(she)*. We got acquainted with *(she)* when I was on duty at the in-patient department. 4. This medical examination will take *(I)* some hours. The doctors will have to examine *(I)* thoroughly. 5. A young doctor asked *(he)* to strip to the waist and listened to *(he)* heart and lungs. 6. You must be out in the open air as much as possible: fresh air is useful for *(you)*.

Exercise 3. Add sentences using the appropriate modal verbs or their equivalents (see the Model).

Model: *It was late, we (to go) home. – As it was late, we had to go home.*

1. As my friend is ill, I *(to go and see)* her. 2. We didn't add nitric acid as the reagent *(to affect)* the results. 3. My friend works at a research institute and soon *(to conduct)* his investigations in biological chemistry. 4. It is cold today, you *(to put on)* your winter clothes. 5. Last summer when we had practice at the botanical station we *(to collect)* different parts of medicinal plants. 6. You *(to describe)* chemical properties of these compounds.

Exercise 4. Give antonyms of these words and word combinations.

To graduate from college, to come into the room, ill, to fall ill with, easy, to be in a good condition, his hands and face were dry, his pulse was slow, to continue the process, slight pain, light food, to excite, to feel rotten, to be indoors all day long, an out-patient department, slow relief, it makes the pain stronger, to put on a gown.

Exercise 5. Change the following sentences from the active voice into the passive voice.

1. She is rubbing in a healing ointment to relieve pain and skin irritation. 2. The nurse was giving a patient an injection of camphor at 8 p.m. yesterday. 3. The students are taking notes

of the lecture now. 4. The chemist was marking bottles of poisonous drugs. 5. The doctor is taking the patient's blood pressure now. 6. The therapeutists were questioning their patients thoroughly. 7. The doctors are treating me at our out-patient department. 8. My mother was having a scalding foot bath at 10 p.m. 9. Doctor X. is seeing patients in Room 17. 10. Our district doctor was making calls when I came to the polyclinic. 11. We are ordering drugs for intravenous injections at this chemist's. 12. Those patients were following a strict diet. 13. She is making the daily round of the district now. 14. The chemist is giving me a bottle of mixture. 15. The overdosage of this drug was causing an untoward reaction. 16. The doctor is checking the patient's eyesight.

Exercise 6. Make up dialogs on the following topics using the given words and word combinations.

1) A doctor is questioning a patient about his health:

trouble, to complain of, to suffer from, occupation, address, age, to feel pain in.

2) A nurse is carrying out doctor's prescriptions:

to give an injection of, to take smb's temperature, to apply a mustard plaster to, to cup, to put a hot water bottle on smb's feet.

3) A doctor is examining a patient at home:

to put on a gown, to wash hands, to strip to the waist, to apply a stethoscope to, to listen to the heart, to palpate the abdomen, to feel smb's pulse.

UNIT TWO

I	**Speaking**	Chemistry, Matter and Life
II	**Grammar**	Revision

I. Speaking: Chemistry, Matter and Life

After careful study of this unit you should be able to:

- *describe the structure of an atom;*
- *differentiate between atoms and molecules;*
- *define the atomic number of an atom;*
- *differentiate between elements and compounds;*
- *explain why water is so important to the body;*
- *define mixture, name three types of mixtures;*
- *define acid, base, and salt;*
- *give characteristics of organic compounds;*
- *define enzyme.*

Exercise 1. Learn the following words and word combinations.

acid ['æsid] кислота
atom ['ætəm] атом

base [beis] основа, луг
carbohydrate [ˌkɑ:bəʊˈhaidreit] вуглевод
compound [ˈkɔmpaʊnd] складний; суміш; сполучення, сполука
electron [iˈlektrɔn] електрон
element [ˈelimənt] елемент
enzyme [ˈenzaim] фермент
ion [aiən] іон
lipid [ˈlipid] ліпід
mixture [ˈmikstʃə] суміш; мікстура
molecule [ˈmɒlikju:l] молекула
neutron [ˈnju:trɒn] нейтрон
organic [ɔ:ˈgænik] органічний
pH [ˈpi:ˈeitʃ] водневий показник
protein [ˈprəʊti:n] білок
proton [ˈprəʊtɒn] протон
solute [sɒˈlju:t] розчин; розчинена речовина
solution [səˈlu:ʃ(ə)n] розчин
solvent [ˈsɒlvənt] розчинник
suspension [səsˈpenʃn] суспензія
matter [ˈmætə] речовина; матерія
absorption [æbˈsɔ:pʃ(ə)n] абсорбція, всмоктування, вбирання
excretion [iksˈkri:ʃ(ə)n] виділення

Exercise 2. Read the text.

Chemistry, Matter, and Life

Chemistry is the science that deals with the composition of matter. Knowledge of chemistry and chemical changes helps us to understand the normal and abnormal functioning of the body and its parts. The main processes are based on chemical principles. Chemistry is important in microbiology and pharmacology. Atoms, molecules, elements, compounds, and mixtures are fundamental units of matter.

Atoms are the basic units of matter that make up various elements on the Earth. Everything about us, everything we can see and touch, is made of atoms – the food we eat, the atmosphere, water in rivers, seas and oceans.

Each atom has a definite structure. At the center of an atom there is a nucleus with positively charged protons and noncharged neutrons. Outside the nucleus in orbitals there are negatively charged electrons (Fig. 2–1).

Atoms are fundamental units that make up the chemical elements from which all matter is made. The entire universe is made up of about 105 elements. Elements can be identified by their names, symbols, or their atomic numbers.

The atomic number is equal to the number of protons that are presenting the nucleus (the number of protons is equal to the number of electrons).

Look at the Table:

Common Chemical Elements Found in the Human Body

Name	Symbol	Atomic Number
Hydrogen	H	1
Carbon	C	6
Nitrogen	N	7
Oxygen	O	8
Sodium	Na	11
Phosphorus	P	15
Sulfur	S	16
Chlorine	Cl	17
Potassium	K	19
Iron	Fe	26

When, on the basis of electron structure, two or more atoms unite, a molecule is formed. For example, a molecule of water contains 1 atom of oxygen and 2 atoms of hydrogen (Fig. 2–2).

Substances that contain molecules formed by the union of two or more different atoms are called compounds. These combinations may be simple and very complex.

Water is the most necessary compound in the body. No plant or animal, including human, can live very long without water.

It is very important to all physiologic processes in body tissues. Water carries substances to and from the cells and makes possible the essential processes of absorption, exchange, secretion and excretion. Why it is so important:

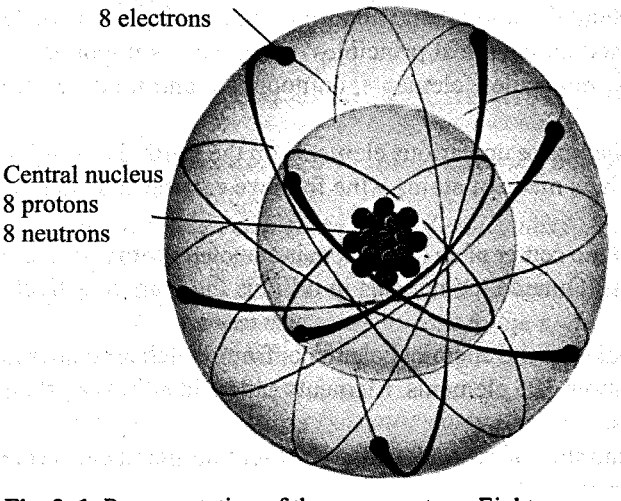


Fig. 2–1. Representation of the oxygen atom. Eight protons and eight neutrons are tightly bound in the central nucleus, around which eight electrons revolve

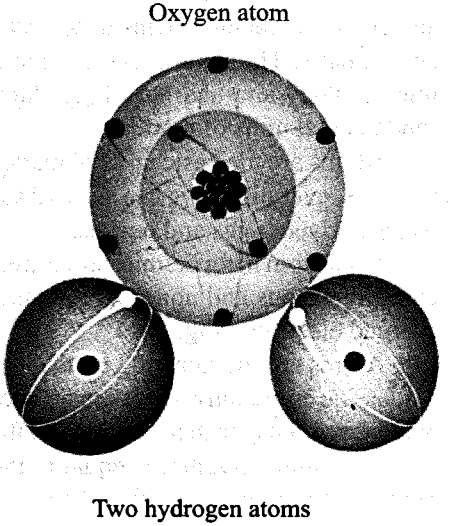


Fig. 2–2. Molecule of water

– it is the universal solvent (it dissolves minerals, nutrients and gases);

– it is a stable liquid (it doesn't freeze until the temperature falls to 0°C and doesn't boil until the temperature rises to 100°C);

– it participates in chemical reactions that occur in the cells.

Not all elements or compounds combine chemically when brought together. The air we breathe consists of gases: nitrogen, oxygen, carbon dioxide, and their proportions in the air may vary. The blood plasma also consists of various components. Such combinations are called mixtures – blends of two or more substances.

Solution is substance (solute) remains evenly distributed in a solvent (e.g. salt in water, glucose in water).

Suspension is a dispersion of fine solid or liquid particles in a fluid, the particles being supported by buoyancy (e.g. red blood cells in plasma, milk of magnesia, india ink). Colloidal suspension forms when the particles do not dissolve but remain suspended (e.g. cytoplasm, blood plasma).

An acid is a chemical substance capable of donating a hydrogen ion (H^+) to another substance. A common example is HCl (hydrochloric acid, found in the stomach juices:

$$HCl \rightarrow H^+ + Cl^-.$$

A base is a chemical substance usually containing a hydroxide ion (OH^-) that can accept a hydrogen ion:

$$NaOH \rightarrow Na^+ + OH.$$

A reaction between an acid and a base produces salt:

$$HCl + NaOH \rightarrow NaCl + H_2O.$$

Acids, bases and salts are chemical compounds. In the body there are also organic compounds: carbon, hydrogen, and oxygen containing. The main types of them are carbohydrates, fats and proteins.

Carbohydrates are the simple sugars called monosaccharides [ˌmɒnəʊˈsækəˌraidz]. Examples of carbohydrates in the body are the glucose that circulates in the blood as a food for the cell and a storage form of glucose called glycogen [ˈglaikəʊdʒən].

Fats, or lipids, are also a store of energy in the body. They provide insulation and protection for the body organs. All proteins contain carbon, hydrogen, oxygen and nitrogen, they may also have sulfur and phosphorus. Proteins are composed of building blocks called amino [əˈmainəʊ] acids. About twenty different amino acids are found in the body. An important group of proteins is enzymes. Enzymes function as catalysts in hundreds of reactions that occur in metabolism. A catalyst is a substance that speeds up the rate of a reaction but is not changed or used up in that reaction. Examples of them are: amylase, lipase, oxidase.

Exercise 3. Title each passage of the text making a plan of it.

Exercise 4. Find English equivalents of the Latin words, give Ukrainian translation.

atomus, i, f	compositus, a, um
structura, ae, f	mixtura, ae, f
celula, ae, f	oxygenium, ae, f
solutio, onis, f	hydrogenium, i, n
sulfur, uris, n	phosphorus, i, m
simplex, icis	saccharum, i, n

Exercise 5. Look at Figure 2–1 and describe the atom of oxygen.

Exercise 6. Translate into English.

1. Протони – це позитивно заряджені частки.
2. Нейтрони – це нейтральні частки ядра.
3. Електрони – це негативно заряджені частки на енергетичних рівнях навколо ядра.
4. Сполуки – це поєднання різних атомів.
5. Мікстура – це суміш кількох речовин.

Exercise 7. Answer the following questions.

1. What science is chemistry?
2. What are atoms and what is known of their structure?
3. What chemical elements do you know?
4. Why is water so important to life?
5. What is the difference between a mixture and a compound?
6. You dissolve a teaspoon of sugar in a cup of tea. Which is a solute? A solvent?
7. What are organic compounds and what elements are found in all of them?
8. What type of organic compounds are enzymes?
9. What are proteins? Fats? Carbohydrates?

Exercise 8. Complete the sentences.

Atoms		blends of 2 or more substances.
Molecules		combinations of different atoms.
Elements	are	basic units of matter.
Compounds		combinations of 2 or more atoms.
Mixtures		substances that cannot be changed into something else.
Acid		a chemical substance capable of donating a hydrogen ion (H^+).
Base		a chemical substance resulting from a
	is	reaction between an acid and a base.
Salt		a chemical substance containing a hydroxide ion (OH^-).
Enzyme		an organic catalyst.

II. Grammar Exercises

Exercise 1. Name the form of the verb in passive voice. Translate the sentences.

1. The patient was treated by a well-known doctor.
2. The temperature is taken regularly.
3. Both children were cured of a dangerous disease.
4. The skin is washed by a surgeon with a soap and running water.
5. An enema will be given in the morning.
6. Operations are being performed by this surgeon.

7. A deep cut was made by the operator.
8. The drug was being taken by the patient when he came in.

Exercise 2. Put the verbs in the correct form. Translate the sentences.

1. The skeleton and teeth of the human body *(містити)* ions which *(утворювати)* from organic acids and bases and compounds of fluorine.
2. About one tenth of phosphorus *(сполучати)* with organic compounds.
3. Climate, temperature and intake of drugs *(впливати)* the amount of water in the body.
4. Chronic poisoning *(відбуватись)* when the dose is sufficient to cause moderate symptoms.
5. Methyl alcohol *(змішувати)* in all proportions with water.
6. Iron, cobalt and nickel which *(входити до складу)* Group VIII of the Periodic Classification *(знаходити)* wide use in medicine.
7. When different atoms *(сполучати)*, the formulas *(показувати)* what atoms and how many of them are present.
8. Melting and boiling *(розглядати)* as physical changes.
9. More than 20 amino acids *(виділяти)* from protein mass during our last experiment.
10. All the vessels *(промити)* carefully and *(сушити)*.
11. The change in density *(спостерігати)* at the end of the test.

Exercise 3. Translate the sentences into Ukrainian, explain the use of the word *it*.

1. Sodium, a silver-colored metal, is very soft. It is also known to be a very reactive substance.
2. The river or lake water is a mixture of substances, some dissolved in it, others suspended in it.
3. It is generally recognized that the primeval life forms developed in the waters of the Earth.
4. It is necessary to store the buffer solution in a dark place.
5. It was commonly believed that milk contained an acid.
6. To demonstrate coagulation he diluted milk with water, brought it to the boiling point, to portions of the solution he added various mineral acids.
7. It is recommended to close glass bottles with glass caps.

Exercise 4. Replace all the nouns with personal pronouns.

1. The patient will be looked after by the ward nurse.
2. The wounded was operated upon by the surgeon.
3. The work of a nurse was much spoken about by the students.
4. The younger children are being taken care of by the elder sister.
5. The articles were read by many students.

Exercise 5. Make up sentences using the following word expressions.

as a result of	у результаті
as a rule	як правило
after all	а втім; зрештою; кінець кінцем
because of	дякуючи; у результаті

except for — за винятком
in other cases — в іншому випадку

Exercise 6. Answer the questions using the expression *it takes...*
1. How long does it take you to go to your medical college?
2. How long does it take to translate a text?
3. How long does it take to perform appendectomy?
4. How long did it take to cure the child from measles?
5. How long does it take to make a blood analysis?

UNIT THREE

I	**Speaking**	Cells and Their Functions
II	**Grammar**	Revision

I. Speaking: Cells and Their Functions

After careful study of this unit you should be able to:
– *describe the function of the cytoplasm and its composition;*
– *name the main organelles in the cell;*
– *give location and function of DNA in the cell;*
– *give location and function of RNA in the cell;*
– *explain how the cell makes proteins;*
– *describe the steps in cell division;*
– *define cancer;*
– *list several risk factors in cancer.*

Exercise 1. Learn the following words and word combinations:
active transport – активне переміщення
cancer ['kænsə] рак
cell membrane – клітинна оболонка
centriole ['sentri,əʊl] центріоля
chromosome ['krəʊmə,səʊm] хромосома
cytoplasm ['saitəplæzm] цитоплазма
diffusion [di'fju:ʒn] дифузія
DNA (deoxyribonucleic acid [di:,ɒksiraibənjʊ'kleiik'eisid]) – ДНК (дезоксирибонуклеїнова кислота)
isotonic [aisə'tɒnik] ізотонічний
micrometer [mai'krɒmitə] мікрометр
mitochondrion [,maitəʊ'kɒndriən] мітохондрія
mitosis [mai'təʊsis] мітоз

mutation [mju:ˈteiʃn] мутація
nucleus [ˈnju:kliəs] ядро
organelle [ˌɔ:gəˈnel] органела
osmosis [ɒzˈməusis] осмоз
phagocytosis [ˌfægəsaiˈtəusis] фагоцитоз
ribosome [ˈraibəsəum] рибосома
RNA (ribonucleic acid [raibənjuˈkleiikˈeisid]) – РНК (рибонуклеїнова кислота)
lysosome [ˈlaisəˌsəum] лізосома
Golgi [ˈgɒldʒi] **apparatus** – апарат Гольджі

Exercise 2. Look at Fig. 3–1.

The cell is the basic unit of life. It is the simplest structure that shows all the characteristics of life: growth, metabolism, reproduction, responsiveness and homeostasis. The cell is invisible to the naked eye. The scientific study of cells began with the invention by Anton van Leeuwenhock of microscope some 350 years ago. Today this single-lens microscope has been replaced by the modern electronic microscope.

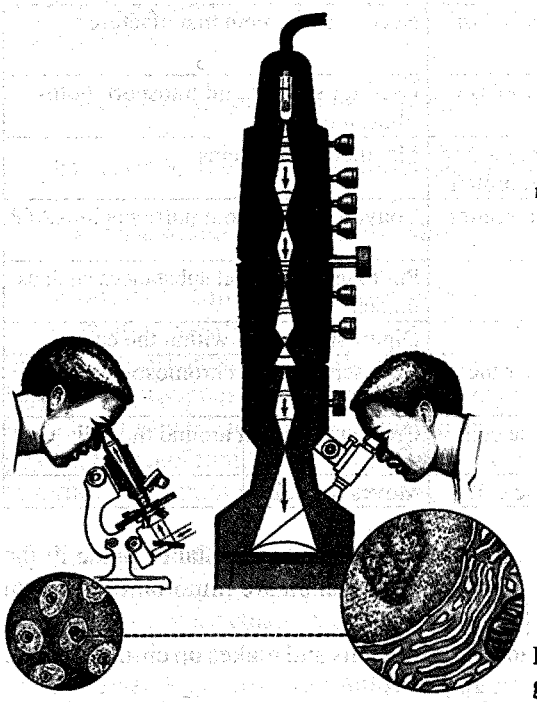


Fig. 3–1. A simplified comparison of an optical (compound) microscope and an electronic microscope

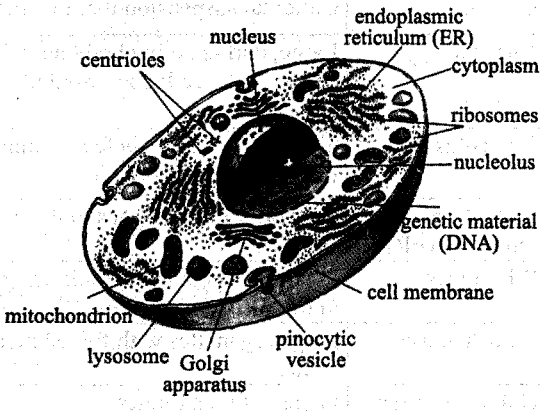


Fig. 3–2. Diagram of a typical cell showing the main organelles

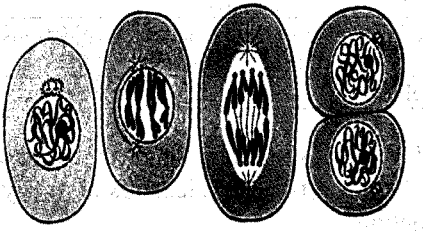


Fig. 3–3. Mitosis. Two centrioles migrate, the genetic material of the nucleus coifs into threadlike chromosomes, and two daughter cells form within the cell membrane. (The cell shown is for illustration only. It is not a human cell, which has 46 chromosomes)

Exercise 3. Read the text and translate it.

Cells and Their Functions

Look at the cell (Fig. 3–2). The outer covering of the cell is the cell membrane. It is very important in regulating what can enter and leave the cell. The main substance that fills the cell and holds the cell contents is the cytoplasm. This is a colloidal suspension of water, food, minerals, enzymes and other specialized materials.

The cell contents include organelles. All the organelles and their functions in the cell are demonstrated in Table 3–1.

Table 3–1. Cell Structure

Name	Description	Function
Cell membrane	Outer layer of the cell; composed mainly of lipids and proteins	Limits the cell; regulates what enters and leaves the cell
Cytoplasm	Colloidal suspension that fills the cell	Holds cell contents
Nucleus	Large, dark-staining body near the center of the cell; composed of DNA and proteins	Contains the chromosomes with the genes (the hereditary material that directs all cell activities)
Nucleolus	Small body in the nucleus; composed of RNA, DNA, and proteins	Needed for protein manufacture
Endoplasmic reticulum (ER)	Network of membranes in the cytoplasm	Used for storage and transport; holds ribosomes
Ribosomes	Small bodies in the cytoplasm or attached to the ER; composed of RNA and protein	Manufacture proteins
Mitochondria	Large organelles with folded membranes inside	Convert energy from nutrients into ATP
Golgi apparatus	Layers of membranes	Put together special substances such as mucus
Lysosomes	Small sacs of digestive enzymes	Digest substances within the cell
Centrioles	Rod-shaped bodies (usually 2) near the nucleus	Help separate the chromosomes in cell division
Cilia	Short, hairlike projections from the cell	Create movement around the cell
Flagellum	Long, whiplike extension from the cell	Moves the cell

Protein plays a very important part in the organism and its production takes place in the cell. There are two nucleic acids in the cytoplasm and nucleus, which are important in protein production:

- deoxyribonucleic acid or DNA is mostly found in the nucleus and makes up chromosomes. DNA is double stranded;
- ribonucleic acid or RNA is single stranded, it is located in the cytoplasm.

Cell reproduction occurs by the dividing process called mitosis. In this process each original parent cell divides to form two identical daughter cells.

Various physical processes take place in the cell:

1) diffusion – molecules move from an area of higher concentration to an area of lower concentration;

2) osmosis – diffusion of water through the semipermeable membrane;

3) filtration – movement of materials through the cell membrane under mechanical force;

4) active transport – movement of molecules from an area of lower concentration to an area of higher concentration;

5) phagocytosis – engulfing of large particules by the cell membrane;

6) pinocytosis – intake of droplets of fluid; the word *pinocytosis* means "cell drinking".

Each of these processes is necessary for the functioning of the cells.

Cells develop different forms, these forms of the same kind congregate to form one of the basic tissues. These tissues, in turn, become specialized organs. So, every cell and formation of cells has its purpose.

But sometimes in the DNA or genetic material a mutation or change occurs. If such a cell doesn't die naturally or get destroyed by the immune system, it may begin to multiply out of control and spread to other tissues, producing cancer. Cancer cells form tumors, which interfere with normal functions, crowding out normal cells and robbing them of nutrients.

Because cancer may take a long period to develop, it is often difficult to identify its causes. Certain factors increase the changes of developing the disease and are considered risk factors.

Risk factors include heredity, carcinogens or chemicals (in food, environment, drugs), ionising radiation (X-rays, ultraviolet rays), physical irritation (intake of hot food), diet (high in fats), viruses.

Exercise 4. Look at Table 3–1, name the components of the cell, describe all of them.

Exercise 5. Translate the functions of each organelle of the cell (from Table 3–1).

Exercise 6.Tell about cell division. Use Figure 3–3.

Exercise 7. Find English equivalents in the text.

Основна одиниця життя, обмін речовин, невидимий для неозброєного ока, однолінзовий мікроскоп, ДНК, РНК, підтримує елементи клітини в цитоплазмі, мінерали і ферменти, утворення білка, процес поділу клітин – мітоз, фізичні процеси, рух матеріалів через клітинну мембрану, поглинання великих часток, клітина п'є, клітина розвиває різні форми, має свої цілі, руйнується імунною системою, переходить на інші органи, утворює пухлини, тривалий період розвитку, фактори ризику.

Exercise 8. Give definitions of the words.

Mutation, cell, cytoplasm, organelles, DNA, RNA, diffusion, osmosis, filtration, phagocytosis, pinocytosis, risk factors.

Exercise 9. Answer the following questions.

1. Why is the study of cells so important in the study of the body?
2. Can you list organelles found in the cell? What are their functions?
3. What is the difference between DNA and RNA with respect to location in the cell?

4. How does the process of cell division take place? What is its name?
5. What is mutation?
6. What are six risk factors associated with cancer?
7. What do we call the science that studies all about cells?

II. Grammar Exercises

Exercise 1. Put in articles where necessary.

1. ... practical studies in ... physiology included ... experiments on ... animals. 2. ... patient Smirnov had to follow ... light diet to avoid ... blood pressure changes. 3. This patient complained of ... sore throat when ... Doctor Sedov was examining him in ... Consulting Room 11. 4. Last night I was excited and couldn't sleep because I suffered from ... bad pain in ... back. 5. ... antiseptic mouth wash, which he had prescribed me, relieved ... pain. 6. In ... some medical journals I could find ... interesting articles dealing with ... new ways of ... treatment of pneumonia. 7. On ... physical exertion ... patient, ill with ... angina pectoris, complained of ... sharp pain in ... substernal area. 8. When I got ... medical certificate, it stated that I had ... good eyesight. 9. My younger sister had ... sore throat, and she couldn't even swallow ... tablets prescribed by ... our district doctor. 10. You must gargle ... throat five times a day to relieve... pain.

Exercise 2. Make the following sentences interrogative and negative.

1. In his childhood he often had a bad earache. 2. My fellow student had a sore throat two days ago. 3. My friend had a good time yesterday. 4. My mother often has a headache. 5. My friends and I usually have dinner at our Institute canteen. 6. I have a cold rubdown in the evening. 7. My sister had a bad headache the other day.

Exercise 3. Finish the following sentences according to the model.

Model: *If I stick a label, then the label is stuck by me.*

If a nurse sponges a patient's skin, then the patient's skin ...; if a poisonous remedy causes death, then death ...; if this healing ointment relieves skin irritation, then skin irritation ...; if a child takes cod liver oil, then cod liver oil ...; if a surgeon rinses his hands, then the hands ...; if a doctor administers a healing ointment, then the healing ointment ...; if a patient takes sedatives, then the sedatives ...; if a doctor prescribes sleeping draughts, then the sleeping draughts ...; if he rubbed in a healing ointment to relieve pain, then the healing ointment ...; if that drug caused a skin irritation, then the skin irritation ...; if I bought a medicine dropper at the chemist's department, then the medicine dropper ...; if he handed in a prescription for the cough mixture, then the prescription for the cough mixture... .

Exercise 4. Give full negative answers to the following questions.

1. Has the standard of population nutrition in the developing countries increased considerably and stopped to be a problem? 2. Have the efforts of chemists been especially large in the protein field? 3. Has the addition of perfumes masked the natural odor of the plant constituents? 4. Had the mixture preserved its properties by the end of the experiment? 5. Had you made the

experiment before the professor came? 6. Will they have produced a new carbon compound by next year? 7. Have you detected any changes in the chemical structure of the drug?

Exercise 5. Translate the sentences, pay attention to the pronoun *one*.

1. One never knows what to do in such cases. 2. One can see various apparatuses in the laboratory. 3. One should be careful when working with reagents. 4. One is always glad to see you. 5. If one wants a thing done, one had best do it oneself. 6. One can say that the temperature has also a positive effect on solubility.

Exercise 6. Act as an interpreter:

Surgeon: What's wrong with your arm, Mr. Brown?

Браун: Спускаючись східцями, я послизнувся і впав на праву руку. Піднімаючись, я відчув біль у руці. Боюся, що я її зламав.

Surgeon: You should've been careful. Now, let me examine your hand. Does it hurt here?

Браун: Так, дуже.

Surgeon: I think we'd better have it X-rayed. Miss Miles will take you to the X-ray room.

Some minutes later

Miss Miles: Here are the pictures, Doctor.

Surgeon: *(to Mr. Brown)* Be seated, please. *(After examining the pictures)* Unfortunately, it is a fracture. You will have to stay in the hospital for a couple of days.

Браун: Дуже шкода. Це означає, що я не зможу продовжити поїздку країною зі своєю туристичною групою.

Surgeon: I'm afraid so.

UNIT FOUR

I	**Speaking**	Tissues, Glands and Membranes
II	**Independent Work**	Diseases

I. Speaking: Tissues, Glands and Membranes

After careful study of this unit you should be able to:

- name four main groups of tissues and give the location and general characteristics of each;

- describe the difference between exocrine and endocrine glands;

- name four types of membranes;

- explain the difference between benign and malignant tumors.

Exercise 1. Learn the following words:

adipose ['ædipəʊs] жировий

areolar [ə'rɪələ] ареолярний

benign [bi'nain] доброякісний

cartilage ['kɑ:tilidʒ] хрящ
collagen ['kɒlədʒen] колаген
cardiac ['kɑ:diæk] серцевий
endocrine ['endə,krain] ендокринний
epithelium [,epi'θi:liəm] епітелій
exocrine ['eksəʊ,krain] екзокринний
fascia ['fæʃiə] фасція
fiber ['faibə] волокно
histology [his'tɒlədʒi] гістологія
involuntary [in'vɒləntəri] мимовільний
joint [dʒɔint] суглоб
malignant [mæ'lignənt] злоякісний
membrane ['membrein] мембрана; оболонка
metastasis [me'tæstəsis] метастаз
mucosa [mju:'kəʊsə] слизова оболонка
myelin ['maiilin] мієлін
neoplasm ['niəʊ,plæzəm] неоплазма; новоутворення; пухлина
neurilemma [,njʊəri'lemə] невролема
neuroglia [njʊ'rɒgliə] нейроглія
neuron ['njʊərɒn] нейрон
osseus ['ɒsiəs] кістковий
serosa [si'rəʊsə] серозна оболонка
sweat [swet] піт
voluntary ['vɒləntəri] довільний
visceral ['visərəl] що стосується нутрощів

Exercise 2. Read the text and translate it.

Tissues, Glands and Membranes

Tissues are groups of cells similar in structure, specialized for the performance of specific tasks. The science that studies all about tissues is called histology.

In the human body there are four groups of tissues: epithelial, connective, nerve and muscle.

Epithelium forms a protective covering of the body and all the organs, it lines the cavities. The epithelial tissue is classified according to the shape of cells. The cells may be:

- squamous ['skweiməs] – flat and irregular;
- cuboidal [kjʊ'bɔidəl] – cubic;
- columnar [kə'lʌmnə] – long and narrow (Fig. 4–1).

They may be arranged in a single layer (simple) and in many layers (stratified).

The cells of some kinds of epithelium produce mucus – a clear, sticky fluid, digestive juices, sweat, etc.

The epithelial tissue also forms glands. A gland is a group of cells specialized to produce a substance that is sent out to other parts of our body.

There are two categories of glands: exocrine and endocrine. Exocrine glands have ducts or tubes to carry the secretion from the gland to another organ, to a body cavity, or to the outside.

Endocrine glands depend on the bloodstream. Their secretion, called hormones, is carried through the lymph or blood to other organs and they have specific effects on other tissues.

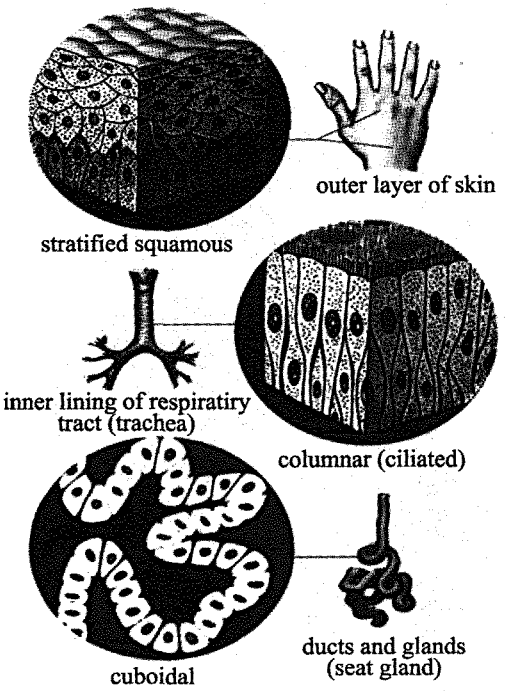


Fig. 4–1. Three types of epithelium

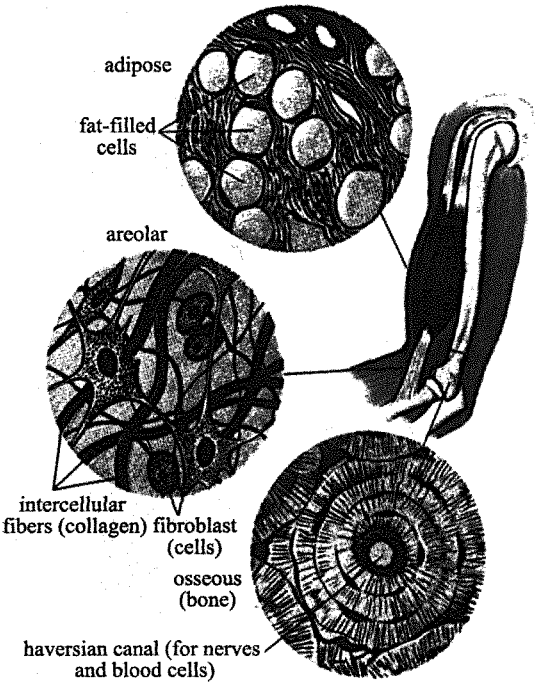


Fig. 4–2. Connective tissue

Connective tissue supports, binds and forms the framework of the body. Connective tissue may be classified simply according to its degree of hardness:

1) soft – adipose tissue and fibrous connective tissue;

2) hard – cartilage and bone;

3) liquid – blood and lymph (Fig. 4–2).

The adipose tissue stores up fat for the body as reserve food, serves as heat regulator. The fibrous tissue consists of collagen and elastic fibers between cells. It may be areolar or dense (fascia, ligament, tendors, capsules). Cartilages are found at the ends of bones, nose, outer ear, trachea, etc. Bones contain calcium salts. The tissue from which bones are made is called the osseus tissue. The nerve tissue is the building material for the central nervous system: our brain and spinal cord and peripheral nervous system. The simplest unit of the nerve cell is neuron (Fig. 4–3).

The muscle tissue is designed to produce movement with the help of contractions. Muscle tissue cells are called muscle fibers.

Usually they are classified as follows (Fig. 4–4):

1) skeletal – a voluntary muscle that moves the skeleton;

2) cardiac – forms the heart;

3) smooth – involuntary, forms visceral organs.

Membranes are thin sheets of tissue. There are four types of membranes:

– mucous membranes line tubes and spaces that open to the outside (respiratory, digestive, reproductive tracts);

– serous membranes line body cavities (parietal layer) and cover internal organs (visceral layer);

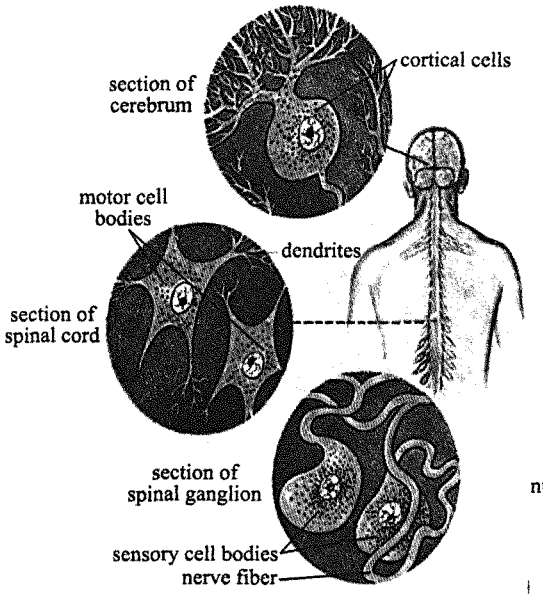


Fig. 4–3. Nerve tissue

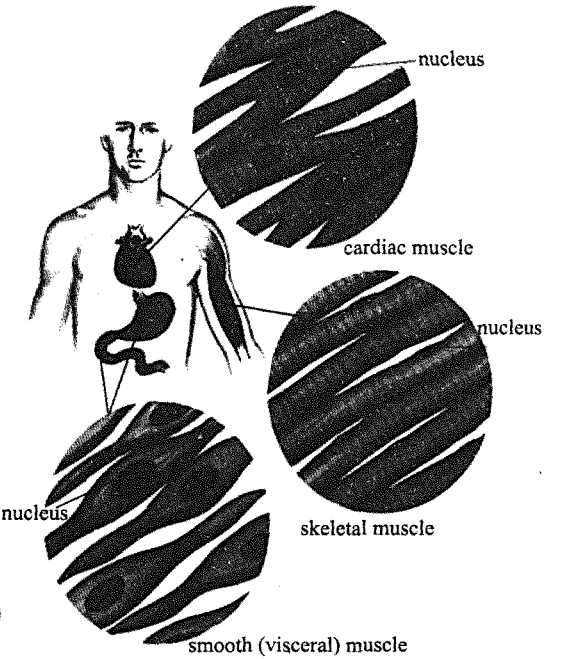


Fig. 4–4. Muscle tissue

– cutaneous membrane is the skin;

– synovial membranes line the joint cavities, they secrete a fluid that reduces friction between the ends of bones, it permits free movement of joints.

You already know that normal tissue growth may be broken by an upstart formation of cells. This is a tumor, or neoplasm. If a tumor is confined to a local area and doesn't spread, it is called a benign tumor. If the tumor spreads to the neighboring tissues or distant parts of the body, it is called a malignant tumor, or cancer.

The process of tumor spread is called metastasis. Here is a list of some benign and malignant tumors (the root *oma* means tumor): papilloma, adenoma, lipoma, osteoma, myoma, angioma, chondroma, carcinoma, sarcoma, lymphoma, glioma.

Exercise 3. Find Latin and Greek equivalents of the English words.

English	Latin	Greek
tumor	articulatio	chondro-
cartilage	tumour	-oma
joint	cartilago	arhthro-
heart	textus	hydro-
sweat	cor	myo-
tissue	musculus	cardio-
muscle	sudor	histo-
cell	nervus	neuro-
nerve	cellula	cyto-

Exercise 4. Give definitions of the following words.

Tissue, connective tissue, epithelium, membrane, tumor, benign tumor, malignant tumor, gland.

Exercise 5. Explain the meaning of the following words (in Ukrainian).

Myoma, lipoma, osteoma, chondroma, adenoma, fibroma.

Exercise 6. Name four main groups of tissues, give examples of their location. (Use Fig. 4–1, 4–2, 4–3, 4–4).

Exercise 7. Describe the differences between exocrine and endocrine glands. Give some examples of each.

Exercise 8. Make up a plan of the text.

Exercise 9. Are the sentences true or false?

1. Tissues are groups of cells specialized for certain task. 2. There are ten groups of tissues. 3. Exocrine glands produce hormones. 4. The connective tissue can be hard, soft and liquid. 5. Neuron is a blood cell. 6. Membranes are thin sheet of cells. 7. Tumor growth can be controlled. 8. Benign tumors are localized.

Exercise 10. Answer the following questions.

1. What shapes of cells are found in the epithelial tissue?
2. What kind of fibers are found in the connective tissue?
3. What is the main purpose of the nerve tissue?
4. What kinds of muscle tissue do you know? Give examples.
5. What is the difference between voluntary and involuntary muscles?
6. What are the two types of the epithelial membrane?
7. What is a tumor? Cancer?
8. What is the difference between benign and malignant tumors?

II. Independent Work: Diseases

Exercise 1. Read the text and translate it.

Study of Diseases

Disease is an abnormal state in which part or all the body doesn't function as usual. There are marked variations in the extent of disease and in its effect on the person. Disease can have a number of direct causes, such as disease-producing organisms (bacteria, viruses, parasitic worms, or helminthes); malnutrition (lack of vitamins, minerals, proteins); physical and chemical agents (heat or cold, injuries, fractures; poisonous substances, certain detergents); birth defects, degenerations and tumors.

There are also indirect, or predisposing causes. The examples of them are age, sex, heredity, living conditions and habits, occupation, physical exposure, preexisting illness, psychogenic influences.

The modern approach to the study of disease emphasizes the close relationship of the pathologic and physiological aspects and the need to understand the fundamentals of each in treating any body disorder. This is the medical science called pathophysiology.

The study of the cause of any disease or the theory of its origin, is called etiology.

Disease can be acute, chronic or subacute. Acute is severe but doesn't last long. Chronic lasts for a long time. Subacute is between them, it's neither severe but lasts for a long period.

A communicable disease is one that can pass from one person to another. Epidemic is a disease of many people in a given region at the same time. Endemic is a disease of fewer people but it is characteristic of a particular region.

Pandemic is a disease of a country, continent or the whole world.

In order to treat the patient every doctor must make a diagnosis. So he must know symptoms and signs of the disease. Although nurses do not diagnose, they play a very important role in observing closely for signs, encouraging patients to talk about themselves and their symptoms, and then reporting the doctor this information.

If the doctor knows about the disease, he prescribes the treatment.

In recent years, physicians, nurses, and other health care workers have taken on increasing responsibilities for prevention of diseases.

Exercise 2. Make up a plan of the text.

Exercise 3. Answer the questions.

1. What is disease?
2. What kind of diseases do you know?
3. What causes diseases?
4. What does pathophysiology study?
5. What disease do we call communicable?
6. What is epidemic? Endemic? Pandemic?
7. What is the role of nurses in looking after patients?
8. What do medical workers do to prevent diseases?

UNIT FIVE

I	**Speaking**	Skeleton
II	**Grammar**	Infinitive (§95)
III	**Independent Work**	Spinal Curves

I. Speaking: Skeleton

After careful study of this unit you should be able to:

- list the bones of the axial skeleton;

- list the bones of the appendicular skeleton;

- *name all the vertebrae;*
- *describe three abnormal curves of the spine.*

Exercise 1. Read and learn the following words, remember their Latin or Greek equivalents.

English	Latin/Greek	Ukrainian
bone [bəʊn]	os, ossa/osteo-	кістка
osteology	osteologia	остеологія
skull	cranium	череп
skeleton	skeleton	скелет
joint [ʤɔint]	articulatio/arthro-	суглоб
ligament	ligamentum/desmo-	зв'язка
cartilage [ˈkɑ:tiliʤ]	cartilago/chondro-	хрящ
axial skeleton [ˈæksiəl]	skeleton axiale	осьовий скелет
frontal	os frontale	лобова (кістка)
parietal [pəˈraiitl]	os parietale	тім'яна (кістка)
temporal [ˈtempərəl]	os temporale	скронева (кістка)
ethmoid [ˈeθmɔid]	os ethmoidale	решітчаста (кістка)
sphenoid [ˈsfi:nɔid]	os sphenoidale	клиноподібна (кістка)
occipital [ɒkˈsipi:tl]	os occipitale	потилична (кістка)
facial [ˈfeiʃəl]	ossa facialia	лицьові (кістки)
lower jaw [ʤɔ:], mandible [ˈmændibl]	mandibula	нижня щелепа
upper jaw, maxilla [mækˈsilə]	maxilla	верхня щелепа
zygomatic [ˌzaigəʊˈmætik]	os zygomaticum	вилична (кістка)
nasal [ˈneizəl]	os nasale	носова (кістка)
lacrimal [ˈləkriməl]	lacrimalis	сльозовий (слізний)
vomer [ˈvəʊmə]	vomer	леміш
inferior nasal concha [ˈkɒŋkə]	concha nasalis inferior	нижня носова раковина
vertebral column	columna vertebralis	хребтовий стовп
bones of the thoracic cage [θɔ:ˈræsikˈkeiʤ]	ossa thoracis	кістки грудної клітки
cervical [ˈsɜ:vikəl] vertebra	vertebra cervicis	шийний хребець
thoracic	thoracalis	грудний
lumbar [ˈlʌmbə]	lumbalis	поперековий
sacral [ˈseikrəl]	sacralis	крижовий
coccyx [ˈkɒksiks]	coccyx	куприк
breastbone [ˈbrestbəʊn]	sternum	грудина
rib	costa	ребро
pelvic girdle [ˈgɜ:dl]	cingulum pelvicum	пояс нижньої кінцівки (тазовий пояс)
hip bone	os coxae	кульшова (тазова) кістка
ilium [ˈiliəm]	os ilii	клубова кістка
ischium [ˈiskiəm]	os ischii	сідничa кістка

English	Latin/Greek	Ukrainian
pubic bone	os pubis	лобкова кістка
pelvis	pelvis	таз
thigh bone [θai], femur ['fi:mə]	femur	стегнова кістка
knee cap	patella	надколінок, надколінна чашечка
tibia ['tibiə]	tibia	велика гомілкова кістка
fibula ['fibjʊlə]	fibula	мала гомілкова кістка
tarsal bones	ossa tarsi	заплеснові кістки
metatarsal bones of the digits	metatarsalia ossa digitorum	плеснові кістки пальців
scapula ['skæpjʊlə]	scapula	лопатка
clavicle ['klævikl]	clavicula	ключиця
humerus ['hju:mərəs]	humerus	плечова кістка
shoulder girdle	cingulum pectorale	плечовий пояс
radius ['reidiəs]	radius	променева кістка
ulna ['ʌlnə]	ulna	ліктьова кістка
carpal bones	ossa carpi	зап'ясткові кістки
metacarpus bones	ossa metacarpi	кістки п'ястка
bones of the fingers	ossa digitorum	фаланги пальців

Exercise 2. Read the texts A and B. Try to understand them without using a dictionary.

Text A. ***Skeleton***

The skeleton is composed of bones. In the adult the skeleton has over 200 bones.

The bones of the skull consist of cranial and facial parts. There are 26 bones in the skull.

The bones of the trunk are the spinal column or the spine and the chest (ribs and breastbone). The spine consists of the cervical, thoracic, lumbar and sacral vertebrae and the coccyx.

The vertebra is a small bone, which is formed by the body and the arch. All the vertebrae compose the spinal column or the spine. There are 32 or 34 vertebrae in the spine of the adult. In the spinal column there are seven cervical vertebrae, twelve thoracic vertebrae, five lumbar, five sacral vertebrae and from one to five vertebrae which form the coccyx. The cervical part of the spine is formed by seven cervical vertebrae. Twelve thoracic vertebrae have large bodies. The lumbar vertebrae are the largest vertebrae in the spinal column. They have oval bodies.

The chest (thorax) is composed of 12 thoracic vertebrae, the breastbone and 12 pairs of ribs. The breastbone is a long bone in the middle of the chest. It is composed of three main parts. The basic part of the chest is formed by the ribs. On each side of the chest seven ribs are connected with the breastbone by cartilages. The cartilages of three other ribs are connected with each other and with the seventh rib. But the cartilages of these ribs are not connected with the breastbone. The eleventh and twelfth ribs are not connected with the breastbone either (також). They are not connected with other ribs, they are free. Each rib is composed of a head, a neck and a body.

The lower extremity consists of the thigh, leg and foot. It is connected with the trunk by the pelvis. The upper extremity is formed by the arm, forearm and hand. It is connected with the trunk by the shoulder girdle.

The bones of the skeleton are connected together by the joints or by the cartilages and ligaments. The bones consist of organic and inorganic substances.

Text B. *Skull*

The main part of the head and face is called the skull. The skull is composed of twenty-six bones. These bones form two basic parts of the skull, they are facial and cranial parts.

The bones of the skull are connected together so firmly (міцно) that is very difficult to separate them.

The bones of the skull form one large cavity and some smaller cavities. The large cavity is called the cranial cavity. The brain is in the cranial cavity. One of the smaller cavities is the oral cavity and the other is the cavity of the nose. The other two cavities are the orbits. The eyeballs are in the orbits.

Exercise 3. Ask your friend to name all the bones of the skull (use Fig. 5–1).

Exercise 4. Look at Fig. 5–2 and describe the human skeleton.

Exercise 5. In the Fig. 5–3 you can see the vertebral column. How many parts does the vertebral column have? Name all of them. How many vertebrae does each of them have?

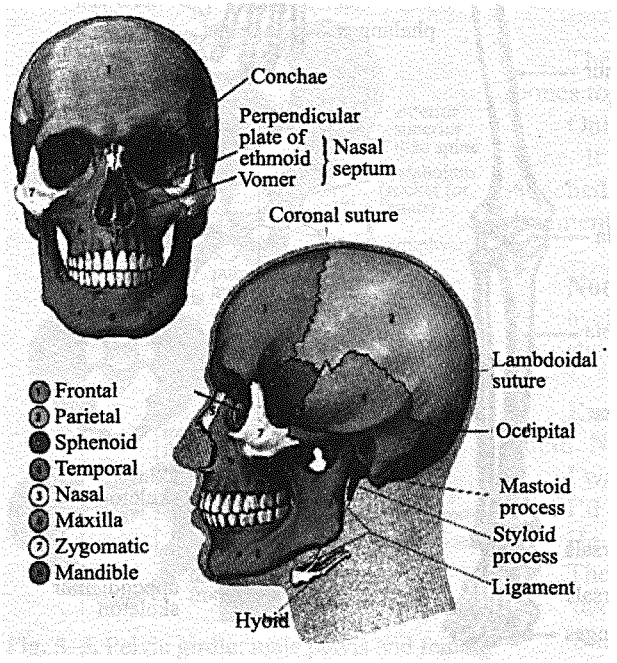


Fig. 5–1. The skull

Exercise 6. Look at the pelvic girdle in Fig. 5–4. Name all its bones and their location.

Exercise 7. Describe the differences between the male pelvis and the female pelvis (use Fig. 5–5).

II. Grammar Exercises

Exercise 1. Write out sentences with the infinitive, name its forms.

The skeleton is the framework of the human body. It serves to support the body and protect its internal organs.

Two hundred and six bones compose the skeleton, about half of which are to compose the hands and the feet.

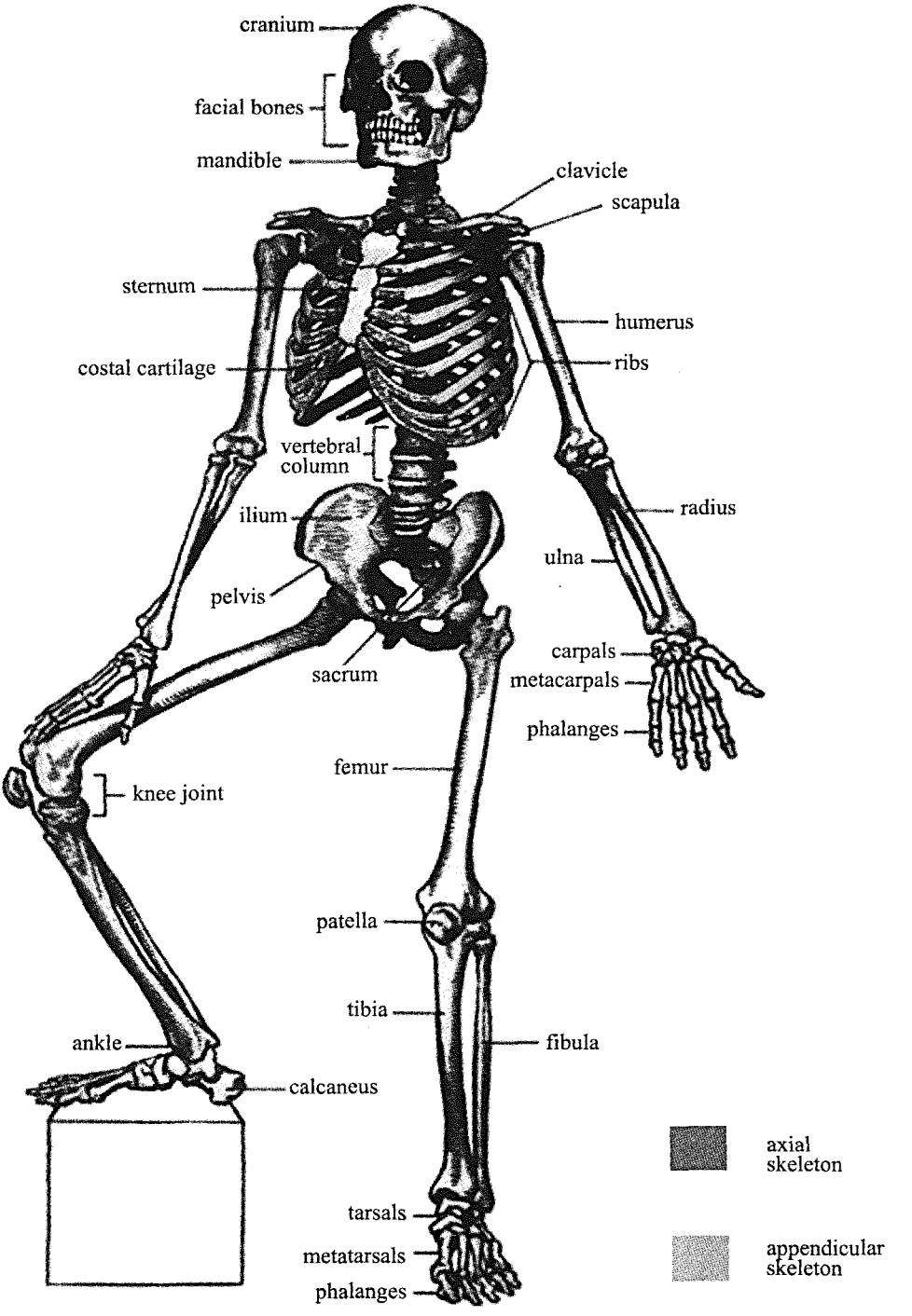


Fig. 5–2. The skeleton

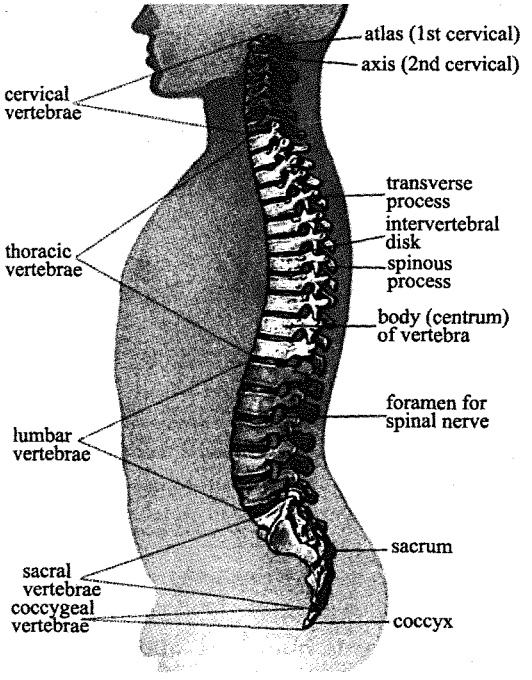


Fig. 5–3. Vertebral column

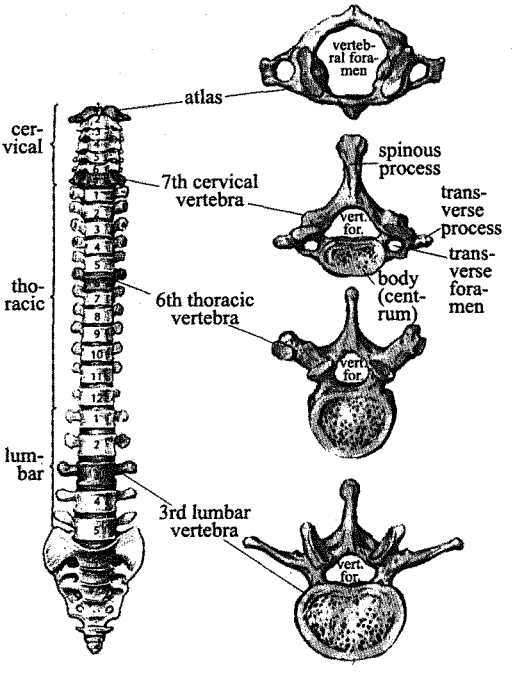


Fig. 5–4. Vertebrae

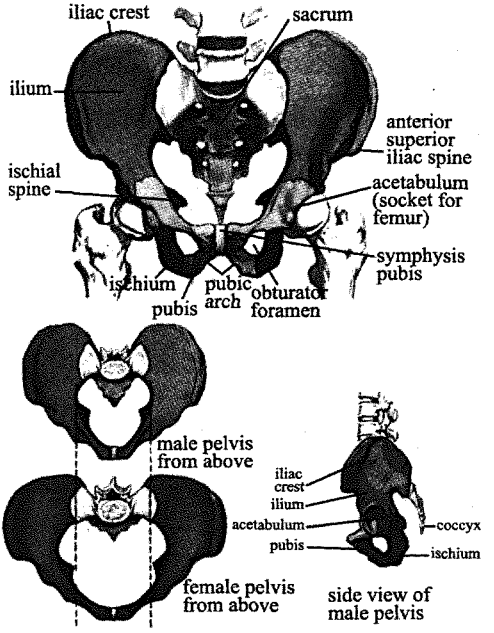


Fig. 5–5. Pelvic girdle: male pelvis and female pelvis

The flexible joints are used to connect the bones together. They allow the bones to move.

Only one bone is not connected to another bone. It is the hyoid, it anchors the tongue and is attached to the styloid processes of the skull by ligament.

Notes:

hyoid [ˈhaiɔid] під'язикова кістка

styloid [ˈstailɔid] шилоподібний відросток

Exercise 2. Make up sentences, translate them. Name the forms of the infinitive.

I want	(to) be helped.
I'd like	(to) speak about the skeleton.
He agreed	(to) describe the structure of it.
The wounded asked	(to) name all possible fractures.
She likes	(to) be examined by the doctor.
You can	(to) define this word meaning.

Exercise 3. Translate the sentences into English. Name the form of the infinitive.

1. Інститут був створений, щоб покращити лікування ракових захворювань.
2. Нашою метою було створення вакцини.
3. Питання, на яке потрібно відповісти, важке.
4. Більшість пацієнтів, за якими медсестрі потрібно особливо доглядати, – це лежачі хворі.
5. Цього хлопчика слід негайно госпіталізувати.
6. На зламану ногу потрібно накласти гіпс.

Exercise 4. Translate the sentences, remember that the infinitive shows the following action.

Model: *He came to find the door locked.*
Він прийшов і виявив, що двері замкнені.

1. Fat cells are normally arranged to form a lobule.
2. This method was rather new to provide a practical use of it.
3. This substance interacts with many hormones to give identical or different metabolic processes.
4. He will work to understand the importance of this problem.
5. The patient asked to be read to.

Exercise 5. Test yourself. Translate the following words into Ukrainian. Show the bones on the skeleton.

carpal bones	metatarsal bones
cervical vertebrae	nasal cavity
clavicle	orbit
coccyx	patella
femur	pedal phalanges
fibula	pubis
humerus	radius
ilium	rib
ischium	sacrum
lumbar vertebrae	scapula
manual phalanges	skull
metacarpal bones	mandible

III. Independent Work: Spinal Curves

Exercise 1. Write down the following words into your vocabulary, learn them.

curve [kɜ:v] вигин; кривизна; закруглення
disorder [dis'ɔ:də] розлад; відхилення; хвороба
exaggeration [ig,zædʒə'reiʃn] перебільшення
hunchback ['hʌntʃbæk] горбань
lordosis [lɔ:'dəusis] лордоз
scoliosis [,skɒli'əusis] сколіоз

curvature ['kɜ:vətʃə] кривизна; вигин, згин; викривлення
compression [kɒm'preʃn] стиснення
teen [ti:n] віком від 13 до 19 років

Exercise 2. Read the text, translate it.

Spinal Curves

There are three abnormalities of the spinal curves. An exaggeration of the thoracic curve is a hunchback, or kiphosis. An excessive lumbar curve is called lordosis. The most common of those disorders is scoliosis. This is a lateral curvature of the vertebral column. In extreme cases there may be compression of some of the internal organs.

Scoliosis occurs in the rapid growth period of the teens, more often in girls than in boys. Early discovery and treatment produce good results.

If the curvature is mild, the treatment may involve only exercises: sit-ups, exercises to stretch the spine, and breathing exercises may strengthen the muscles of the trunk enough to correct the situation. More severe scoliosis may require wearing a special leather brace or a plastic brace.

The use of specially designed electrical stimulation devices has met some success. The most severe scoliosis requires spinal fusion surgery.

Exercise 3. Find sentences with the infinitive, write them out, underline the infinitive, name its forms.

Exercise 4. Make up a plan of the text.

UNIT SIX

I	**Speaking**	Bones
II	**Grammar**	Functions of Infinitive in Sentences (§96)
III	**Independent Work**	At the Traumatologist's

I. Speaking: Bones

After careful study of this unit you should be able to:

- name three different types of bone cells;

- differentiate between compact bone and spongy bone with respect to structure and location;

- describe the structure of a long bone;

- differentiate between yellow and red marrow with respect to function and location;

- name the functions of the bones;

- describe five bone disorders;

- list and define six types of fractures.

Exercise 1. Read and learn the following words, remember their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
tissue	textus/histos	тканина
osseous	osseus	кістковий
enzyme	enzymum	фермент
osteoblasts	osteoblasti	остеобласти
osteocytes	osteocyti	остеоцити
osteclasts	osteoclasti	остеокласти
compact	compactus	компактний
spongy [ˈspʌndʒi]	spongious	губчастий
red bone marrow [ˈmærəʊ]	medulla ossium rubra	червоний кістковий мозок
yellow bone marrow	medulla ossium flava	жовтий кістковий мозок
diaphysis [daiˈæfisis]	diaphysis	діафіз (тіло кістки)
epiphysis [iˈpifisis]	epiphysis	епіфіз (кінець кістки)
cleft palate	palatum bifidum	розщеплене піднебіння
osteoporosis [ˌɒstiəʊpɔːˈrəʊsis]	osteoporosis	остеопороз
osteomyelitis [ˌɒstiəʊˌmaiiˈlaitis]	octeomyelitis	остеомієліт
rickets [ˈrikits]	rhachitis	рахіт
tumor [ˈtjuːmə]	tumor/-oma	пухлина
aging [ˈeidʒiŋ]		старіння
compound	compositus	складний
simple	simplex	простий
greenstick fracture		перелом за типом "зеленої гілки"
impacted [imˈpæktid]		сплющений (перелом)
spiral [ˈspairəl]		скручений/спіральний (перелом)
comminuted [ˈkɒminjuːtid]		осколковий (перелом)
to put in plaster (of Paris)		накласти гіпс
to bend		згинати
to unbend		розгинати
to be knitted		зростатися (про зламані кістки)

Exercise 2. Read the texts, try to understand them using the vocabulary; make up a plan of each text.

Text A. ***Bones***

Bones are organs with their own system of blood, lymphatic vessels, and nerves. They are composed of bone tissue, called osseous tissue. Bone formation begins during the second and third months of embryonic life. At this time osteoblasts, or bone-building cells, become very active. Osteoblasts manufacture the intracellular material which is located between the cells and contains a protein called collagen.

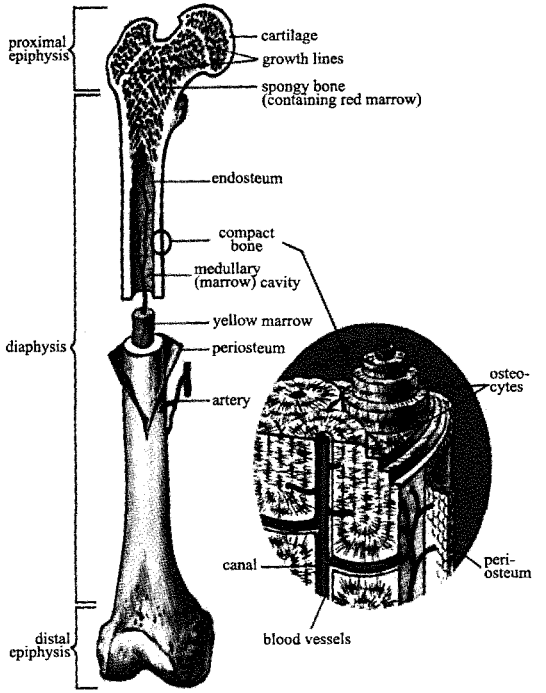


Fig. 6–1. The structure of a long bone; the composition of a compact bone

Osteocytes are mature bone cells that maintain a bone, but they do not produce new bone tissue. Other cells, called osteoclasts, are responsible for the process of resorption, or the breakdown of a bone.

In the skeleton there are more than 200 bones of many different shapes. They may be flat (rib, skull), cube-shaped (wrist, ankle), or irregular (vertebrae).

The typical bones, which make up most of the arms and legs, are described as a long bone. It has a long shaft, called the diaphysis, which has a central marrow cavity and two irregular ends, epiphysys (see Fig. 6–1).

There are two types of bone tissue: compact and spongy. Compact tissue forms the shaft of long bones; it is located outside of other bones. Spongy tissue forms the ends of long bones, it is also located in the center of other bones.

Bones contain two kinds of marrow: red and yellow. Red marrow is found at the end of the long bones and at the center of other bones, which manufactures blood cells. Yellow marrow is found in the central cavities of the long bones. It is largely fat.

Each bone is covered on the outside by the periosteum with blood and lymph vessels and nerves, and the endosteum, a thinner membrane which covers the marrow cavity of a bone.

Text B. Functions of Bones

Bones have a number of functions, many of which are not obvious. Some of these are listed below:

1) to serve as a firm framework for the entire body;

2) to protect such delicate structures as the brain and spinal cord;

3) to serve as levers, which are actuated by the muscles that are attached to them;

4) to serve as a storehouse for calcium, which may be resorbed into the blood if there is not enough calcium in diet;

5) to produce blood cells (in the red marrow).

Text C. Disorders of Bones

We can divide the bones' disorders into some groups: miscellaneous disorders, metabolic disorders, curves of the spine, changes in aging, and fractures.

Cleft palate is deformation of the maxilla. Infants born with this defect have difficultly nursing, because their mouths communicate with the nasal cavities. Surgery is usually performed to correct this defect.

Osteoporosis is a disorder of bone formation, the lack of normal calcium deposits and a decrease in bone protein. The bones become fragile and break easily. Treatment has included administration of calcium daily throughout adult life.

Osteomyelitis is the inflammation of bones caused by pus-producing bacteria.

Tumors may be benign or malignant (osteosarcomas).

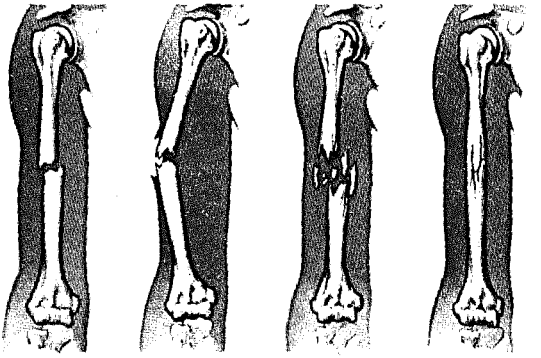


Fig. 6–2. Types of fractures

Rickets is a rare childhood disease, characterized by numerous bone deformities. The bones become soft and distorted. Deficiency of the active form of vitamin D prevents the absorption of calcium and phosphorus through the intestine.

The age also puts such changes as thinning of the intervertebral disks, the vertebral bodies may lose height, the costal cartilages become calcified and flexible.

The word *fracture* means "a break or a rupture of a bone". Fractures can be:

- compound, when the broken bone ruptured the skin;
- simple, when the break of a bone doesn't rupture the skin;
- greenstick fracture, when the bone splits in much the same way as a piece of green wood might (it is common for children);
- impacted, when the broken ends of the bone are jammed into each other;
- comminuted, in which there is more than one fracture line with several fragments resulting;
- spiral fracture, in which the bone has been twisted apart. These are relatively common in skiing accidents (Fig. 6–2).

Exercise 3. Look at Fig. 6–1 and describe a long bone.

Exercise 4. Explain the difference between the terms in each of the following pairs:

a) osteoblasts and osteoclasts;
b) red marrow and yellow marrow;
c) periosteum and endosteum;
d) compact bone and spongy bone;
e) epiphysis and diaphysis.

Exercise 5. Tell your group about five bone disorders.

Exercise 6. Name six types of fractures (use Fig. 6–2).

Exercise 7. Read the dialog and act it out.

Traumatologist: What's happened?

Patient: I fell down and hurt my leg.

T: What troubles you now?

P: I feel a severe pain in my right leg and can't walk.

T: Show me your injured leg. Place it on the chair and take off the bandage. Move the joints of your leg.

P: I can't. It is painful.

T: Lie down on a coach, please. I'll examine your leg. Does it hurt you when I touch here?

P: No, it doesn't.

T: Is it painful at pressing?

P: Yes, it is.

T: Where is the pain more acute, here or there?

P: Here.

T: Try to bend and to unbend your leg. Don't move it. Sit down, please. I believe you have a fracture. You need treatment. Do you agree to be hospitalized?

P: No, I do not.

T: Then you'll be treated in your polyclinic. First it's necessary to X-ray your leg and give an injection with antitetanic serum. Then your leg will be put in plaster. Stay in your bed for one–two weeks. Then we'll take off the plaster. You'll do easy exercises and massage your leg.

P: Well, doctor, I'll follow your instructions.

T: Besides, I'll prescribe you some medicine and vitamins for the improvement of your general condition. Now the nurse will accompany you to the X-ray room. Then she will call in an ambulance to transport you home without delay.

P: Well, thank you.

Exercise 8. Answer the following questions.

1) What types of bone cells do you know?
2) What kinds of tissue are there in the bones?
3) What covers the bones outside?
4) What is the difference between red and yellow marrow?
5) What is the structure of a long bone?
6) What are the functions of the bones?
7) What bone disorders do you know?
8) What is the fracture and what kind of fractures can you name?

II. Grammar Exercises

Exercise 1. Read the words and translate them. Name their parts of speech, pay attention to the suffixes.

a) Fibrous, numerous, continuous, venous, nervous;

b) ordinary, alimentary, primary, secondary, respiratory;

c) subdivision, subacute, subtropical, subcostal, subcutaneous, subclass, subserous.

Exercise 2. Match synonyms from A and B, translate them.

a) To intend (мати намір), force (сила), to come back, faithful (вірний), when, nervous, to occur, to receive, to appoint, grown-up (дорослий);

b) to fix, to happen, strength, to be going to, to return, adult, to get, while, true, excited.

Exercise 3. Translate the following sentences.

1. He decided to achieve better results in the second term. 2. In addition to the lecture we must read some articles on this subject. 3. Yesterday he finished his experiment earlier than usual. 4. The doctor fixed the date of the operation for this patient. 5. Their son graduated from the Institute and got an appointment to a village hospital. 6. Last summer we rested longer than usual. 7. The book by Prof. V.V. Kovanov contains much interesting information for medical students.

Exercise 4. Write out sentences with the infinitive from Exercise 3. Name its form and function in the sentence.

Exercise 5. Underline the infinitive, name its form and function in the following sentences.

1. Live not to eat, but eat to live.
2. Treat others as you would like to be treated.
3. What can't be cured must be endured.
4. It is easy to be wise after the event.
5. To know everything is to know nothing.
6. Would you try to bend your hand (leg)?
7. There are many drugs which are used to relieve pain in bones.
8. It is too late to continue studying at the Medical University.
9. These medicines are used to stop severe pain in bones.

Exercise 6. Translate into English:

1. Вам потрібно проконсультуватись у травматолога. 2. Лікар призначив йому полоскати горло щогодини. 3. Лікувати хворих – це завдання кожного лікаря. 4. Основне завдання медсестри – доглядати за своїми пацієнтами. 5. Лікар прийшов у палату, щоб обстежити нового пацієнта. 6. Медсестра не має права помилятися. 7. Вже пізно починати цю роботу сьогодні. 8. Він завжди хотів стати хірургом.

III. Independent Work: Traumatological Case Report

Exercise 1. Read the text and translate it.

Traumatological Case Report

A seven-year-old boy was admitted to the emergency department one hour after being struck by a car. There was no history of loss of consciousness. He complained of pain in the left side of the abdomen, in the left flank, and in the left leg. The patient had a pulse rate of 100 beats per minute, a respiratory rate of 25 times per minute and his blood pressure was 120 over 80.

A bruise on the head 2 by 2 centimeters, swellings in the left parietal region were present. Large bruises were found in the left upper and lower abdominal quadrants during observation. Microscopic hematuria was present.

Roentgenography revealed a linear fracture of the left parietal bone. A routine roentgenogram of the abdomen showed a normal condition.

It was something wrong with the spleen, but the operation was not done nor was the test for the hematocrit value repeated. The patient was taken to the operating room and 200 cubic centimeters of blood were found in the abdominal cavity.

A rupture of the spleen was seen in the region predicted by scanning. Splenectomy was performed. No postoperative reactions. The patient was discharged ten days after admission.

Exercise 2. Find terms of Latin or Greek origin, explain their meaning. Write them down in your copy-book.

Exercise 3. Ask questions based on the text.

UNIT SEVEN

I	**Speaking**	Joints
II	**Grammar**	Objective Infinitive Complex (§97)
III	**Independent Work**	Anti-Inflammatory Drugs

I. Speaking: Joints

After careful study of this unit you should be able to:
– describe three types of joints;
– describe the structure of a synovial joint and list the types of synovial joints;
– define six types of synovial joints movements;
– describe disorders of joints (four types of arthritis).

Exercise 1. Learn the following words.
amphiarthrosis [ˌæmfiɑːˈθrəʊsis] напіврухомий суглоб; амфіартроз
arthritis [ɑːˈθraitis] артрит
diarthrosis [ˌdaiɑːˈθrəʊsis] (справжній) суглоб; діартроз
synarthrosis [ˌsinɑːˈθrəʊsis] синартроз
synovial [saiˈnəʊviəl] синовіальний
articulation [ɑːˌtikjʊˈleiʃn] суглоб
cartilaginous [ˌkɑːtiˈlədʒinəs] хрящовий
bursa [ˈbɜːsə] сумка
bursitis [bɜːˈsaitis] бурсит (запалення синовіальної сумки)
ellipsoid [iˈlipsɔid] еліпсоїд
hinge [hinʤ] завіса; шарнір
trochoid [ˈtrəʊkɔid] трохоїдний

condyloid ['kɒndi,lɔid] виростковий (bicondylar)
saddle ['sædl] сідловидний, сідлоподібний
spheroidal [sfiə'rɔidəl] кулястий (суглоб)
flexion ['flekʃn] згинання
extension [iks'tenʃn] розгинання
abduction [æb'dʌkʃn] відведення, абдукція
adduction [e'dʌkʃn] приведення, аддукція
sprains [sprein] розтягнення зв'язок
dislocation [,dislə'keiʃn] вивих
gout [gaʊt] подагра
angle ['æŋgl] кут

Exercise 2. Read the text and try to understand it without a dictionary (your vocabulary will help you).

Joints

An articulation, or a joint unites two or more bones together. Joints are divided into three main groups according to the material between the bones. Also they are classified according to the degree of movement permitted:

– fibrous joints are found in the skull, they connect the bones of the skull, they are immovable and called **synarthrosis,**

– cartilaginous joints are found between the pubic bones of the pelvis, between the vertebrae; they connect the bones by cartilages, they are slightly movable and are called **amphiarthrosis;**

– synovial joints are placed between the bones, where there is a space between them, called the joint cavity; the cavity is filled with a synovial fluid and the joints can freely move. These joints are called **diarthrosis** (Table 7–1).

Table 7–1. Types of Joints

Name	Movement	Material Between the Bones	Examples
Fibrous	Immovable (Synarthrosis)	No joint cavity; usually fibrous connective tissue between bones	Sutures between bones of skull
Cartilaginous	Slightly movable (Amphiarthrosis)	No joint cavity; usually cartilaginous connective tissue between bones	Pubic symphysis; joints between bodies of vertebrae
Synovial	Freely movable (Diarthrosis)	Joint cavity filled with synovial fluid	Gliding, hinge, pivot, condyloid, saddle, ball-and-socket joints

Most joints are synovial. The bones connected by these joints are held together by ligaments. Near some joints there are small sacks called bursae, which are also filled with synovial fluid. Inflammation of a bursa is called bursitis.

Synovial joints may be classified according to the types of movement: spheroidal, trochoid, ellipsoid, bicondylar, hinge and sellar.

The chief function of the freely movable joints is to allow for changes of position and so provide for motion. Here are some examples of movement that changes the angles between bones; for example, **flexion** is bending the fingers to close the hand, **extension** is straightening the fingers to open the hand, **abduction** is moving the arms straight out to the sides, **adduction** is bringing the arms back to their original position beside the body. There are some other movements of bones: to turn the head, to turn the palm down or backward, to turn the sole inward or outward, etc.

Joints are subject to certain disorders of mechanical nature: **dislocations** and **sprains**. But the most common joint disease is **arthritis** or inflammation of the joints. There are different kinds of arthritis:

– **osteoarthritis**, which occurs mostly in joints of the hips, knees, and spinal column; degenerative changes include the formation of spurs, thickening of the synovial membrane, atrophy of the cartilage, and calcification of the ligaments;

– **rheumatoid arthritis** is characterized by swelling of joints of the hands, feet and other parts of the body;

– **infectious arthritis** can be brought on by such infection as rheumatic fever and gonorrhea;

– **gout** is a kind of arthritis caused by a disturbance of metabolism. Any joint can be involved, but the one most commonly affected is the big toe.

Exercise 3. a) Give definitions of the terms:
– synarthrosis;
– diarthrosis;
– amphiarthrosis.
b) List three types of joints.

Exercise 4. Give English equivalents of the Latin words.
Articulatio, ligamentum, cartilago, dislocatio, arthritis, articulationes synoviales, articulatio ellipsoidea, articulatio sellaris, bursa, bursitis. *(Find them in the text.)*

Exercise 5. Look at Table 7–1. Make up a dialog with your fellow student about types of joints, their movement, material between the bones and examples where such joints are found.

Exercise 6. Differentiate between the terms in each of the following pairs:
– flexion and extension;
– abduction and adduction.

Exercise 7. Speak about joint disorders according to the plan.
1. Disclocations and sprains.
2. Arthritis:
   – osteoarthritis;
   – rheumatoid arthritis;
   – infectious arthritis;
   – gout.

Exercise 8. Answer the following questions.

1. How are joints classified?
2. What is the main function of joints?
3. What types of synovial joints do you know? Can you give examples of each?
4. What kinds of movement can you name?
5. Will you describe such joint disorders as osteoarthritis? rheumatoid arthritis? infectious arthritis? gout?

II. Grammar Exercises

Exercise 1. Form and translate new words using the given suffixes.

-ion/-ation, -sion, -tion: fix, prepare, decide, add, inform, infect, protect
-ment: require, achieve, treat, appoint, excite
-(i)ty: responsible, human, special, possible
-(i)ly: day, successful, necessary, clear, deep, main
-y: word, sleep, health, air, ease

Exercise 2. Turn the following sentences into negative.

1. My friend left the town for his summer holidays.
2. They are resting now.
3. I returned to the hostel at 2 p.m.
4. He feels tired after his classes.

Exercise 3. Complete the sentences using the Objective Infinitive Complex.

	як ви розмовляєте англійською.
1. I have	як він робить ін'єкції.
never	як цей хворий кашляє.
heard	щоб цей хворий скаржився.
	щоб хворий переніс операцію добре.
2. I'd like	щоб вони підтвердили наш діагноз.
	щоб медсестра зміряла температуру.
	щоб хірург допоміг зробити перев'язку.

Exercise 4. Put special questions to the following sentences using the given interrogative words.

1. My fellow student got a good mark in English. (*What*)
2. Modern methods of treatment help doctors to treat people successfully. (*How*)
3. The surgeon was working at the clinic from 9 a.m. till 2 p.m. (*Where*)
4. My sister looks unwell. (*Who*)
5. He is tired because he works hard. (*Why*)

Exercise 5. Change these complex sentences into simple ones using the Objective Infinitive Complex as in the example.

We didn't expect that the patient would become alert so soon. – We didn't expect the patient to become alert so soon.

1. I haven't seen how surgeons close wounds in layers.
2. The doctors didn't expect that the patient would recover his consciousness so soon.
3. We know that this surgeon treats perforated ulcers skillfully.
4. They did not notice how I entered the room.
5. The surgeons expect that the patient will be ready for the operation in time.
6. The doctor considers that my eyesight is good.
7. The professor thinks that the postoperative course of the patient will be uneventful.
8. Everybody knows that rupture of the spleen is dangerous to life.

Exercise 6. Translate the following sentences into English, use the Objective Infinitive Complex.

1. Лікар попросив хворого роздягтися до пояса.
2. Пацієнт попросив медсестру виміряти йому кров'яний тиск.
3. Я попросив медсестру дати мені направлення на рентген.
4. Ви коли-небудь бачили, як травматолог вправляє вивих?
5. Ви коли-небудь бачили, як хірург обробляє руки перед операцією?
6. Мені хотілося б, щоб цей хворий одужав якнайшвидше.

III. Independent Work: Anti-Inflammatory Drugs

Exercise 1. Read the text, translate it, write down new words into your vocabulary.

Anti-Inflammatory Drugs

There are numerous medicines which are used to relieve pain in bones and joints. Doctors very often administer "Butadionum" in such cases as arthritis, osteoarthritis, rheumatoid arthritis.

The action of "Butadionum" is anti-inflammatory and against local pain. "Reopirinum" has softer action than "Butadionum" and it is used in the same cases as the latter.

There are many new drugs which are compatible with "Butadionum" and "Reopirinum". They are used to intensify their action or to substitute them. For example, the ointment "Indometacinum" is more effective than "Butadionum". Its action is more intense. This drug is also characterized as anti-inflammatory, anti-fever and sedative medicine.

A common side effect of all these medicines is rash on the skin. In such a case you must stop using the ointment at once and consult a doctor.

Maybe the doctor will prescribe you other drugs or use the ointment in combination with vitamins or something else.

The newest ointment "Finalgonum" is the best for your muscles, bones and joints. It immediately stops even severe pain and its action continues during three to six hours.

Notes:
anti-inflammatory – протизапальний
to relieve – заспокоїти
local pain – місцевий біль
to substitute – замінити
anti-fever – жарознижуючий

Exercise 2. Make up a dialog: you are a traumatologist and you receive a patient with severe pain in his knee.

1. Ask him: a) his name, age; information about his family, etc.;
   b) what's happened; what troubles him; when he fell ill.
2. Comment your examination of the patient; some instructions to him (to place his extremity, to move his joints, to bend and to unbend); your information to your patient; your prescriptions and advice.
3. Explain the action of drugs that you prescribed for the patient (use information of the text).

UNIT EIGHT

I	**Speaking**	Musculoskeletal System
II	**Grammar**	Subjective Infinitive Complex (§98)
III	**Independent Work**	Muscle Tissues

I. Speaking: Musculoskeletal System

After careful study of this unit you should be able to:
– name the main functions of the muscular system;
– differentiate between voluntary and involuntary muscles;
– describe the structure of skeletal muscles;
– explain the attachments of muscles to bones;
– show the blood supply of the muscles;
– name groups of muscles;
– list major muscular disorders.

Exercise 1. Read and learn the following words.

English	Latin/Greek	Ukrainian
motor apparatus	apparatus motoris	руховий апарат
myology	myologia	міологія, вчення про м'язи
muscle ['mɑ:sl]	musculus/my(o)-	м'яз
tendon ['tendən]	tendon	сухожилок
fascia ['fæʃiə]	fascia	фасція
cutaneous muscles	musculi cutanei	м'язи шкіри
muscles of the head	musculi capitis	м'язи голови
muscles of the neck	musculi colli	м'язи шиї
muscles of the back	musculi dorsi	м'язи спини
thoracic muscles	musculi thoracis	м'язи грудної клітки
abdominal muscles	musculi abdominis	м'язи живота
muscles of the upper limb	musculi membri superioris	м'язи верхньої кінцівки
muscles of the lower limb	musculi membri inferioris	м'язи нижньої кінцівки
fiber ['faibə]	fibra	волокно
spasm ['spæzm]	spasmus	спазм, судома
atrophy ['ætrəfi]	atrophia	атрофія
dystrophy ['distrəfi]	dystrophia	дистрофія
myasthenia	myasthenia	міастенія
myalgia	myalgia	міалгія
tendinitis	tendinitis	тендиніт
flatfoot		плоскостопість

Exercise 2. Read and translate the text.

Musculoskeletal System

Muscles are the active part of the motor apparatus; their contractions produce various movements. Functionally all muscles are divided into voluntary and involuntary muscles.

Voluntary muscles consist of striated muscle tissue and contract by the will of man. This group includes all muscles of the head, trunk and extremities, i.e. the skeletal muscles, as well as those of some internal organs (tongue, larynx, etc.).

Involuntary muscles consist of smooth muscle tissue and are found in the walls of internal organs, blood vessels and in the skin. The contractions of these muscles are not controlled by man.

It should be remembered that the heart muscle, although its contractions are not controlled by the will, consists of striated muscle tissue with a special structure.

The human body contains more than 650 individual muscles anchored to the skeleton, which provide pulling power so that you can move around. These muscles constitute about 40 % of our total body weight.

Skeletal muscles are complex in structure. They consist of muscle fibers of different length (up to 12 cm); the fibers are usually parallel to each other and are united in bundles. Each length

muscle is composed of many such bundles. There are tendons at the ends of muscle by means of which they are attached to bones.

The muscles points of attachment to bones or other muscles are designated as origin or insertion. The point of origin is point of attachment to the bone to which the muscle is anchored. The point of insertion is the point of attachment to the bone the muscle moves. Generally, the muscles are attached by tough fibrous structures called tendons. These attachments bridge one or more joints and the result of muscle contraction is movement of these joints. The body is moved primarily by muscle groups, not by individual muscles. These groups of muscles power all actions ranging from the threading of a needle to the lifting of heavy weights.

Exercise 3. Look at Fig. 8–1. Explain how the muscle is attached to the bones.

Exercise 4. Make a plan of the text, use sentences from it.

Exercise 5. Find English equivalents of the following sentences:

1. Функціонально всі м'язи поділяються на вольові та мимовільні.
2. Мимовільні м'язи складаються із гладенької м'язової тканини.
3. У людському тілі більше ніж 650 самостійних скелетних м'язів, що складають близько 40 % усієї ваги тіла.
4. На кінцях м'язів знаходяться сухожилля, за допомогою яких м'язи прикріплені до кісток.
5. Нерви з'єднують м'язи і центральну нервову систему.

Exercise 6. Differentiate voluntary and involuntary muscles. Where are they found?

Exercise 7. Describe the skeletal muscles:

a) their form;
b) structure;
c) blood supply;
d) groups of muscles.

Exercise 8. Look at Fig. 8–2, 3 and read the names of all the muscles of the human body (front and back).

Exercise 9. Read the text, translate and title it.

Spasm is a sudden and involuntary muscular contraction. It is always painful. The example of spasm is bellyache or colic. Atrophy may occur in a wasting or decrease in the size of a muscle. Strains and sprains are

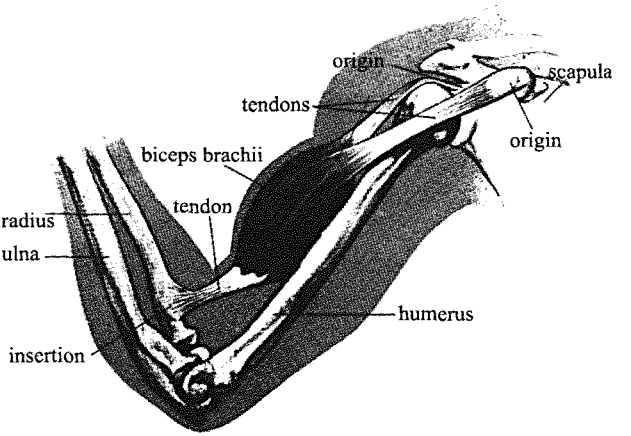


Fig. 8–1. Attachment of the muscle to the bones

typical injures that often affect muscles. Muscular dystrophy is a hereditary disorder. Myalgia means 'muscular pain'. Myositis is a term that indicates actual inflammation of muscle tissue. Fibrositis means "inflammation of connective tissue". Tendinitis is an inflammation of muscle tendons and their attachments occurs most often in athletes.

Flatfoot is a common disorder in which the arch of the foot (підйом ступні), the normally raised portion of the sole, breaks down so that the entire sole rests on the ground. Wearing properly fitted shoes and walking with the toes pointed straight forward may help to prevent flatfoot and other painful foot disorders.

Exercise 10. Make a list of muscular disorders.

Control Tests. Musculoskeletal System

1. What are the functions of the musculoskeletal system?
   A. Moving
   B. Transporting
   C. Building
   D. Moving and supporting
   E. Supporting

2. What is the skeleton?
   A. The framework of bones
   B. The composition of bones
   C. The box of bones
   D. The building of bones
   E. Lazy bones

3. What science studies bones and their diseases?
   A. Myology
   B. Osteology
   C. Cytology
   D. Histology
   E. Neurology

4. What science studies muscles and their diseases?
   A. Osteology
   B. Gynecology
   C. Therapy
   D. Myology
   E. Cardiology

5. The human skeleton consists of ___ parts.
   A. 1
   B. 5
   C. 4
   D. 2
   E. 3

6. The bones of the skull are ___ .
   A. built closely
   B. movable
   C. ssolated
   D. immovable
   E. simple

7. The skull has ___ bones.
   A. 26
   B. 20
   C. 40
   D. 16
   E. 21

8. The skull consists of ___.
   A. facial part
   B. facial and cranial parts
   C. cranial part
   D. the head
   E. all answers are wrong

9. What is the function of cartilages?
   A. Connective
   B. Supportive
   C. Transporting
   D. Protective
   E. Osteopoiesis

10. What for are there joints between the bones?
A. To connect bones together
B. To connect bones and let them to move
C. To move bones
D. To protect bones from injury
E. To prevent injuries

11. There are many ___ in the spine.
A. ligaments
B. bones
C. cartilages
D. joints
E. vertebrae

12. The ___ and ___ form the chest.
A. ribs and breastbone
B. trunk and limbs
C. scapula and clavicula
D. maxilla and mandibula
E. upper and lower limbs

13. The only movable bone in the skull is the lower jaw. What for?
A. To open the mouth and chew
B. To smile
C. To breathe
D. To open bottles
E. To speak english

14. Arthritis is ___ .
A. lack of calcium
B. inflammation of a joint
C. bone abscess
D. hypovitaminosis
E. dead bone tissue

15. What bone is absent in the upper limb?
A. Humerus
B. Femur
C. Ulna
D. Radilus
E. Phalanges

16. What bone can't we see in the leg?
A. Femur
B. Tibia
C. Fibula
D. Knee cap
E. Ulna

17. What vertebrae can't we name?
A. Cervical
B. Coccygeal
C. Thoracic
D. External
E. Lumbar

18. The joints allow the bones ___ .
A. to make noise
B. to move
C. to work together
D. to step
E. to dance

19. A break of bones is ___ .
A. fracture
B. rupture
C. suture
D. mixture
E. tincture

20. The science dealing with the effect of drugs on living organisms is ___.
A. pathology
B. pharmacology
C. phytotherapy
D. biology
E. chemistry

21. Novocaine is the medicine for relieving ___.
A. headache
B. heartache
C. local pain
D. toothache
E. earache

22. Pain in joints is ___ .
A. arthralgia
B. arthroporosis
C. arthropoiesis
D. arthrogenesis
E. arthrotomia

23. What does the term "scoliosis" mean?
A. Breastbone curvature
B. Spinal curvature
C. Bone curvature
D. Rib curvature
E. Joint curvature

24. What is the structural unit of bones?
A. Ganglion
B. Osteon
C. Nephron
D. Neuron
E. Acinus

25. How many bones are there in the human body?
A. 216
B. 156
C. 168
D. 249
E. 170

26. How many pairs of ribs are there?
A. 6
B. 7
C. 10
D. 12
E. 3

27. The largest muscle of the spine is ___ .
A. narrow
B. wide
C. latissimus
D. widest
E. latior

28. What main groups of muscles do you know?
A. Flexor and extensor
B. The head, trunk and extremities
C. Voluntary and involuntary
D. Anterior and posterior
E. Front and back

29. What is diaphragm?
A. The largest respiratory muscle
B. The longest respiratory muscle
C. The narrowest respiratory muscle
D. The type of respiration
E. The septum between cavities

30. What is the definition of the term "myositis"?
A. Inflammation of muscles
B. Rupture of muscles
C. Lack of power of muscles
D. The tumor of muscles
E. Smooth muscle

31. What parts does the trunk consist of?
A. The spine
B. The vertebral column
C. The chest, spine and pelvis
D. The chest and pelvis
E. A great number of vertebrae

32. What part contains the brain?
A. Belly
B. Chest
C. Abdomen
D. Cranium
E. Trunk

33. What must we do in case of dislocation?
A. Apply mustard plasters
B. Apply splints
C. Set a bone
D. Choose a diet
E. Jump upstairs

34. Inflammation of bones and joints is ___ .
A. synarthrosis
B. arthritis
C. osteoarthritis

D. arthralgia
E. osteoporosis

35. What is the medical meaning of the musculus gluteus maximus?
A. To apply cups
B. To apply mustard plasters
C. To give medicines
D. To make injections
E. To sit still

36. What medicinal form is most usually used to relieve local pain in muscles?
A. Dragee
B. Tincture
C. Tablet
D. Powder
E. Ointment

37. What muscles don't belong to the head?
A. Chewer muscle
B. Skull muscle
C. Superior oblique muscle of the head
D. Musculus spinalis capitis
E. Sternal muscle

38. First aid in fracture of the limb is ___.
A. to put plaster casts
B. to use splints for broken limb
C. to let the person move
D. to put bandage on the place of fracture
E. to press on the place of pain

39. What kinds of fractures do you know?
A. Open and closed
B. High and low
C. Oval and round
D. Painful and painless
E. Big and small

40. What method is used to determine fractures?
A. Operation
B. X-rays
C. Bronchoscopy
D. Narcosis
E. Palpation

41. What does the term "sprain" mean?
A. Перелом
B. Вивих
C. Забій
D. Розтягнення
E. Контузія

42. What is the English for the term "розрив"?
A. Fracture
B. Break
C. Wound
D. Injury
E. Trauma

43. What term is used to name the endings of the tubular bone?
A. Hypophysis
B. Diaphysis
C. Epiphysis
D. Epiphysitis
E. Epicrisis

44. What bone has the shape of a plate?
A. Flat bone
B. Knee cap
C. Tarsal bone
D. Heel bone
E. Os breve

45. The hospital department where patients with injuries are treated is called ___.
A. Surgical department
B. Maternity department
C. Traumatology department
D. Neurology department
E. Dermatology department

46. What must you do immediately in case of open fracture?
A. Stop the bleeding

B. Put a wet cloth on the wound
C. Apply a splint on the broken limb
D. Use X-rays to see the break
E. Make the dressing secure

47. In case of injury of the spine you mustn't ___.
A. speak with the patient
B. render first aid
C. relive the patient's pain
D. wash the patient's face
E. move the patient

48. What term doesn't mean "ушкодження"?
A. Sleep
B. Bruise
C. Wound
D. Break
E. Fracture

49. The longest bone of the chest is___ .
A. Femur
B. Sternum
C. Tibia
D. Humerus
E. Ulna

50. The science which studies the structure of the human body is ___ .
A. Myology
B. Osteology
C. Anatomy
D. Histology
E. Biology

II. Grammar Exercises

Exercise 1. Translate the following sentences, pay attention to *one–ones, that–those.*

1. I don't like this book, give me another one. 2. The bones of the extremities are longer than those of the spine. 3. The bones of the skull are those which compose the head and face. 4. This lecture is more interesting than the one I attended last week. 5. The weight of the lung is less than that of the heart.

Exercise 2. Put the verbs in the correct form.

1. "What *(to be)* you doing now"? "I *(to be)* preparing for my physics test". 2. Yesterday from 2 till 6 o'clock we *(to be)* working in our scientific laboratory. 3. When I was at my sister's at 4 p.m. yesterday she *(to be)* learning Latin. 4. Tomorrow at 5 p.m. I *(to be)* preparing a lecture.

Exercise 3. Make up disjunctive questions based on the following sentences.

1. All patients are usually excited before the operation. 2. The tablets which you took weren't sweet. 3. He has a very high blood pressure. 4. These patients will be well again soon. 5. There are many slips on the registering clerk's table. 6. There wasn't any serious complication after measles. 7. There were some out-patients in the room. 8. Your respiration doesn't accelerate after physical work. 9. The doctor noted some changes in the lung. 10. The course of physiotherapy will arrest the process of inflammation.

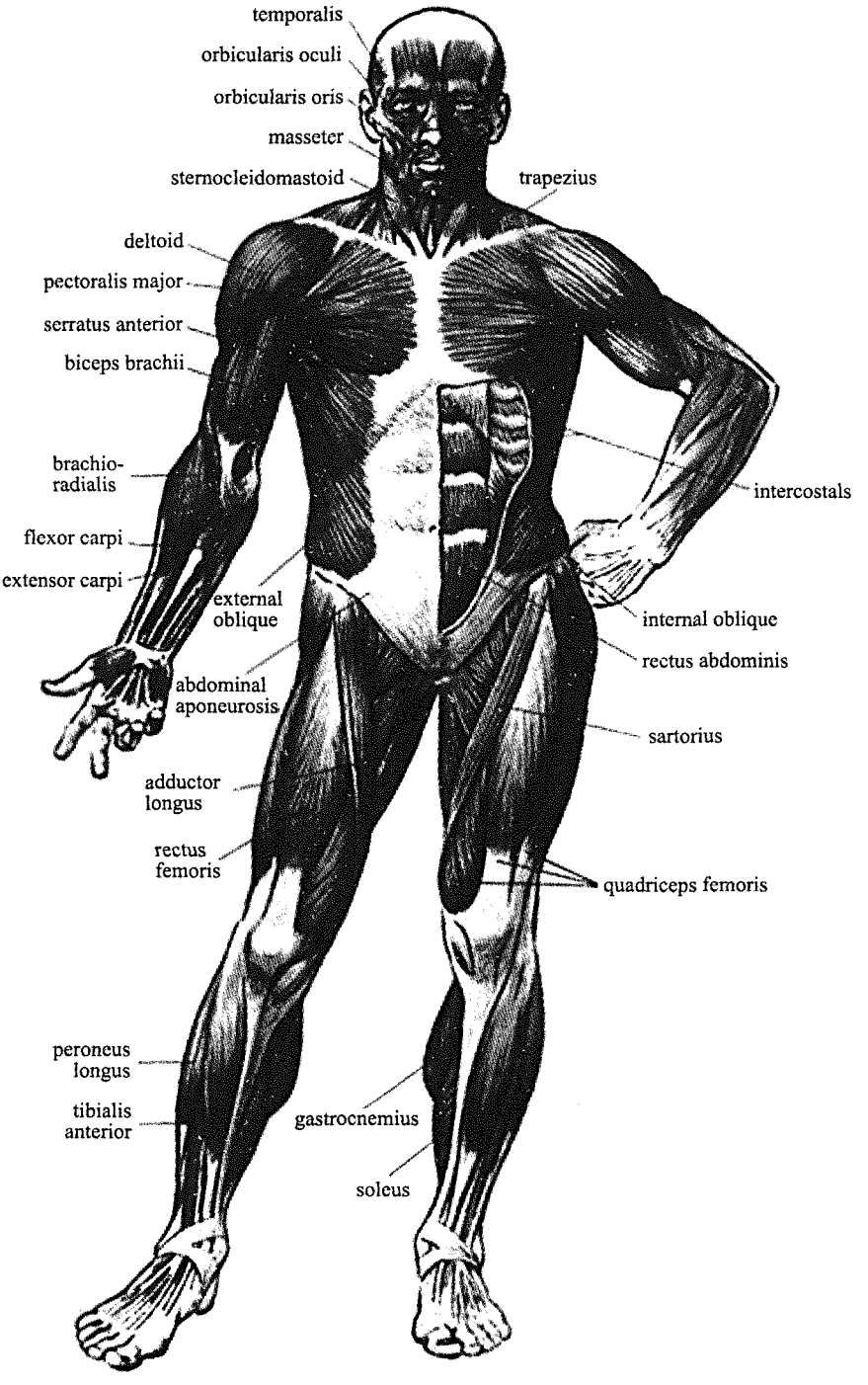


Fig. 8–2. Muscles of the body (front)

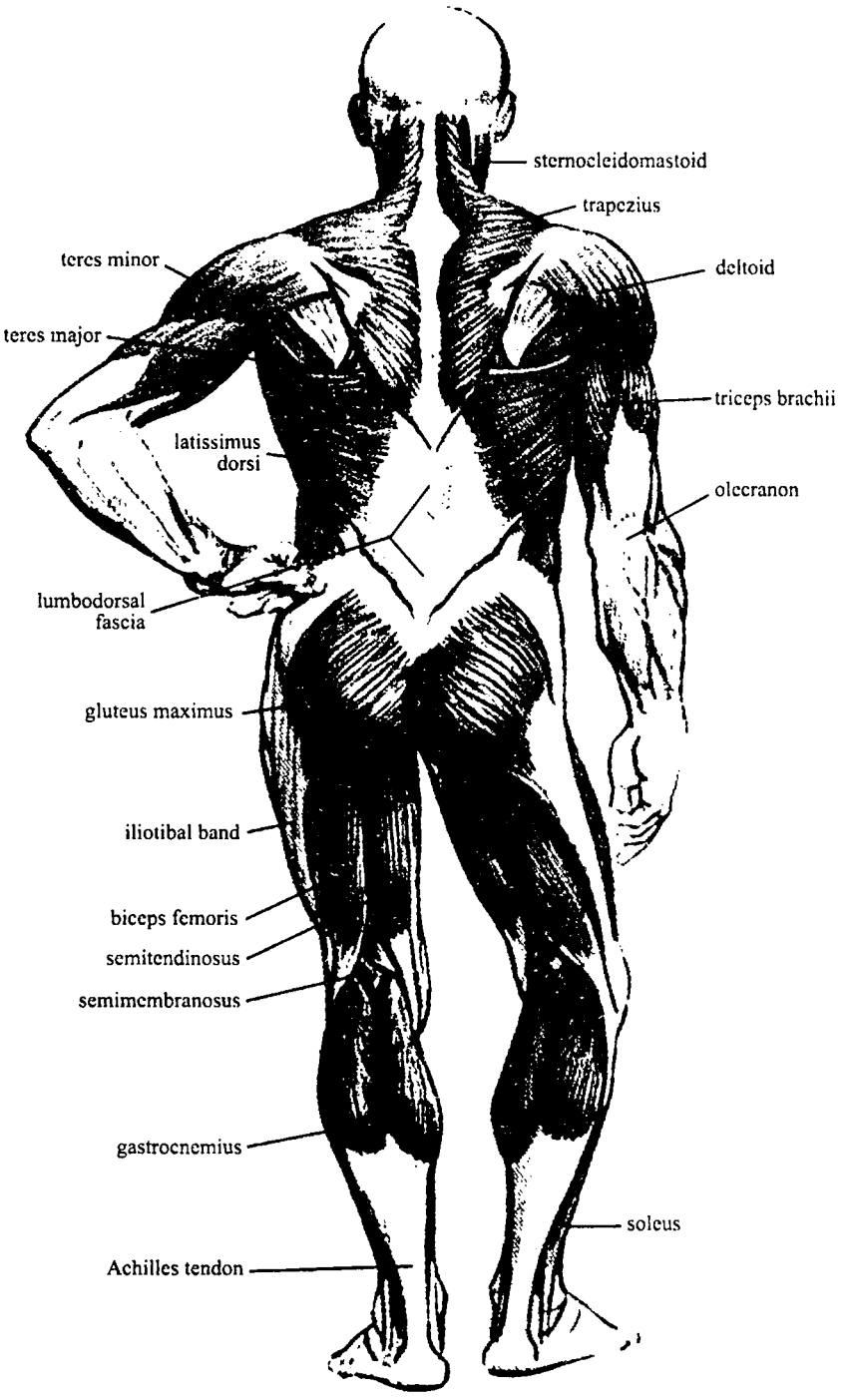


Fig. 8–3. Muscles of the body (back)

Exercise 4. Translate the sentences, name the function of the infinitive in the sentences.

1. To save this patient's life doctors decided to perform the operation. 2. To save patient's life is necessary. 3. This man to be rendered first aid suffers from heart disease. 4. They want to render him first aid. 5. It is necessary to examine this man, to render him first aid. 6. The patient to be operated on was brought to the operating room. 7. To prevent the danger of infection the surgeons use sterile instruments. 8. To prevent the danger of infection is very important. 9. Measures to be taken to protect the health of people are various. 10. They want to prevent the danger of infection. 11. The patients to be admitted to this department suffer from pneumonia. 12. To transfuse blood from one person to another the medical staff must have some technical skills.

Exercise 5. Substitute complex sentences with the Subjective Infinitive Complex, use the model.

Model: *It is said that the experiments are very interesting.*
The experiments are said to be very interesting.

1. It is known that streptomycin is the substance of the highest antibacterial activity. 2. It was said that constriction of the stomach muscles was the most probable diagnosis. 3. It is believed that he is an excellent surgeon. 4. It appeared that he had been wounded. 5. It seems that the disorder is curable.

Exercise 6. Translate the sentences, underline the Subjective Infinitive Complex, use the model.

Model: *She is known to be an expert nurse.*
Відомо, що вона досвідчена медсестра.

1. The doctor was expected to come tomorrow.
2. The operation was supposed to have been duly performed.
3. The condition of the patient was reported to be hopeless.

III. Independent Work: Muscle Tissues

Exercise 1. Read the text.

Muscle Tissues

Muscle is composed of elongated cells which have the power of contracting or reducing their length. This property of contraction is ultimately a molecular phenomenon and is due to the presence of protein molecules which can stretch out or shorten. The following three types of muscle occur in the body.

Smooth muscle is found in sheet or tubes forming the wall of many hollow or tubular organs, for example the bladder, the intestines or blood vessels. The cells forming this tissue are long spindles with a central oval nucleus. They are usually packed together with a little connective tissue between them.

Striated muscle is found in masses of various shapes usually directly or indirectly attached to bone and forms the fleshy party of the body. It is composed of cylindrical fibers often of great

length in which separate cells cannot be distinguished. Many small nuclei are found in the fibers and lie just under the surface. Fibrils are present running lengthwise along the muscle fibers and show alternate light and dark bands which give an appearance of striations across it. Bundles of fibers form the muscle which is embedded in connective tissue.

Cardiac muscle which is found only in the heart forms the bulk of its substance and resembles striated muscle except that the nuclei are placed centrally. The fibers form a continuous network but each cell functions as separate unit.

These three types of muscle have different types of action as follows:

1) Smooth muscle cells act in conjunction with one another though influenced by nerves, can function when they have no connection with the central nervous system. They contract slowly but can maintain this contraction for long periods.

2) Striated muscle, on the other hand, contracts quickly, rapidly becomes fatigued and has no function unless it is connected through nerves with the central nervous system.

3) Cardiac muscle has the power of rhythmical spontaneous contraction which is affected by nervous influences but carries on independently of its nervous connection.

Exercise 2. Make up a plan of the text.

Exercise 3. Choose sentences about the differences in muscles structure.

Exercise 4. Put sentences in the correct order.

1. Bundles of fibers form the muscle which is embedded in connective tissue. 2. Cardiac muscle has the power of rhythmical spontageous contraction. 3. The following three types of muscle occur in the body. 4. Striated muscle is found in masses of various shapes. 5. Smooth muscle is found in sheet or tubes forming the wall of many hollow or tubular organs. 6. Muscle is composed of elongated cells.

UNIT NINE

I	**Speaking**	Skin (Integumentary System)
II	**Grammar**	1. Prepositional Infinitive Complex (§99). 2. Особливості перекладу інфінітивних комплексів (§100)
III	**Independent Work**	Taking Care of Skin and Its Appendages

I. Speaking: Skin (Integumentary System)

After careful study of this unit you should be able to:

- *describe the layers of the integumentary system;*
- *describe the appendages of the skin, their function and location;*
- *list the main functions of the skin;*

- *give the information about observation of the skin;*
- *list the main diseases of the skin.*

Exercise 1. Read and learn the following words, remember their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
skin	cutis/dermato-	шкіра
epidermis	epidermis	епідерміс
dermis	dermis	дерміс
dermatitis	dermatitis	дерматит
eczema	eczema	екзема
hair	capilli	волосся
eyebrows	supercilia	брови
cilia	cilia	вії
beard [biəd]	barba	борода
nail [neil]	ungius	ніготь
papillae	papillae	сосочки
sweat [swet]	sudor/hidr(o)-	піт
sweat glands	glandulae sudoris	потові залози
integument	integumentum	покрив
sebum ['si:bəm]	sebum/lipo-, steato-	сало, лій
sebaceous [si'beiʃəs]	sebaceous	сальний
perspiration [ˌpɜ:spə'rəiʃn]	perspiratio	потовиділення
sunburn	combustio	опік
furuncles ['fjʊərʌŋklz]	furunculi	фурункули
carbuncles ['kɑ:bʌŋklz]	carbunculi	карбункули
herpes ['hɜ:pi:z]	herpes	герпес, лишай
urticaria [ˌɜ:ti'kɛəriə]	urticaria	кропивниця
decubitus ulcers [di'kju:bitəs'ʌlsəz]	decubitus ulcus	пролежні

Exercise 2. Read the text and translate it.

Skin

The skeleton is covered by the skin, by the layer of subcutaneous tissue and fat, and by the muscles.

The skin consists of two layers: an outer layer termed the epidermis, and an inner layer termed the dermis.

The epidermis is composed of a number of layers of cells which vary in shape from above downward. The cells in the surface layers are flat. Those in the layers lower down are round or many-sided; the cells in the deeper layers are column-shaped, and possess great vitality and power of reproduction.

The dermis is composed of a mass of loosely connected fibers which can be divided into two layers.

An outer layer is raised into a great number of conical or finger-like projections termed papillae. Each papilla contains blood vessels and nerve endings and also the rudiment of a hair. An inner layer consists of bands of connective tissue interlacing with each other and permeated by blood vessels, glands and fat.

The skin contains two sets of glands: the sweat glands and the sebaceous glands. The nails and hair are special structures developed from the epidermis.

The functions of the skin are of great importance and are as follows: to enclose contained parts, to act as a protective covering, to contain special nerve endings, which receive and convey certain waste products in the form of perspiration which consists of water with a proportion of mineral matter dissolved in it and a small quantity of carbonic acid.

Observation of the skin can tell you much: what does its color indicate? Are there any lesions ['li:ʒənz]: wounds, or local damage, or trauma, or eruption?

A general term referring to any skin disease is dermatitis. Inflammation of the skin is called dermatitis. Sunlight may cause chemical and biological changes in the skin, and it may lead to skin cancer. Eczema is a very unpleasant disease that may be found in all age groups of people, and eczema may affect any and all parts of the skin surface. It is noncontagious disease.

There are many other skin diseases, such as furuncles, carbuncles, psoriasis (a chronic disease with the skin covered by silvery scales), herpes, cancer of the skin, urticaria (an allergic reaction characterized by red patches (hives) often accompanied by severe itching), decubitus ulcers, or bedsores, or pressure ulcer – areas of dead skin and subcutaneous tissues. The nurse who cares for a bed patient must prevent the beginning of such a disease by frequent position change of this bed patient, because it is far easier than treatment of an established ulcer.

Exercise 3. Look at Fig. 9–1 and describe the structure of the skin.

Exercise 4. Name the skin glands and appendages.

Exercise 5. Describe the structure of the epidermis and dermis.

Exercise 6. Explain the main functions of the skin.

Exercise 7. List skin diseases.

Exercise 8. Answer the following questions.

1) What are the layers of the skin?
2) What is the difference between the cells of the surface layer and the deeper layer?
3) What does each papilla contain?
4) What does perspiration consist of?
5) What is the role of observation of the skin?
6) What is the difference in the terms *dermatosis* and *dermatitis*?
7) What disease may sunburn cause?
8) Is eczema a contagious disease?

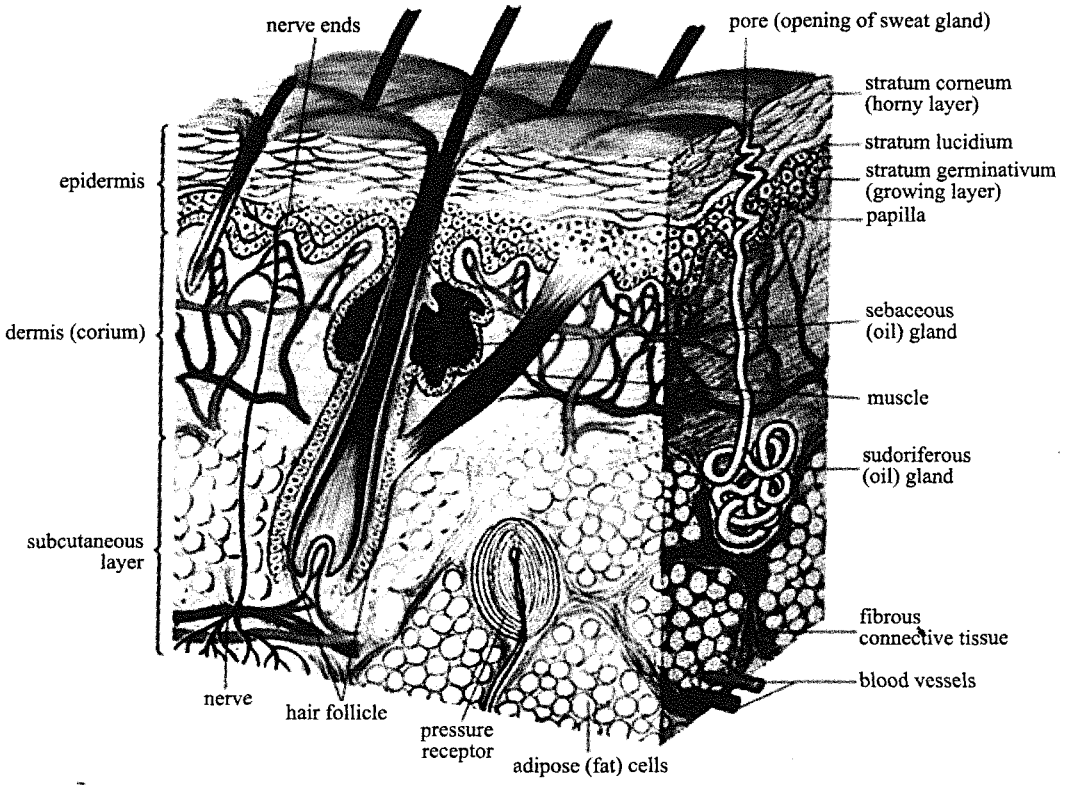


Fig. 9–1. Skin structure

9) What is urticaria?
10)What is the duty of the nurse who cares for bed patients?

II. Grammar Exercises

Exercise 1. Form adjectives using the suffix *-y*, translate them.
Air, word, health, water, risk, sun.

Exercise 2. Match the given adjectives and nouns.
Adjectives: hard, several, successful, whole, human, deep, clear.
Nouns: head, body, knowledge, work, subjects, day, examination, observation, skin.

Exercise 3. Name the part of speech of the words in bold type. Translate the sentences.

A. 1. **Last** month they had practical classes at the Chair of Therapy. 2. These experiments usually **last** for about two hours. 3. There are two **terms** in an academic year. 4. First-year students study many anatomical **terms**. 5. In summer I usually **rest** in the village. 6. My friend

and I went to the theater and the **rest** of our group went to the cinema. 7. What **kind** of books do you like? 8. We know that this doctor is a very **kind** and intellectual person.

B. 1. I **need** your help very much. 2. A friend in **need** is a friend indeed (друзі пізнаються в біді). 3. **Nurses** take care of patients. 4. She **nurses** patients with great care.

C. 1. At the end of the **winter** term we will take two examinations and at the end of the spring term we will have five.

Exercise 4. Make up 10 sentences using the tables.

It	is was will be	important necessary dangerous better	for	me you him them	to stay here. to buy it. to take this drug. to visit a doctor.

The best thing	is was will be would be	for	you us them me	to invite Richard. to wait for them. to go away. to think a little.

We She/he They	wait(s) waited will wait	for	me you them	to have a talk. to come back. to answer the question. to go out.

Exercise 5. Transform the following complex sentences into the Prepositional Infinitive Complex.

1. It is necessary that we start the operation today.
2. It is necessary that she recovers soon.
3. It is important that he works regularly.
4. It is necessary that you go to your doctor twice a year.

Exercise 6. Translate into Ukrainian:

1. The disease was too serious for that patient to recover soon.
2. It is cold for the children to go out.
3. The first thing for the doctor to do is to find out the child's case history.
4. It is very important for the nurse to know her duties.
5. The manipulation was too difficult for the nurse to do it without the help of the doctor.
6. It is necessary for many hypertension patients to be registered.
7. It is necessary for the eye to be operated on and treated for a long time.
8. The first thing for him to do is to consult a doctor.

Exercise 7. Translate into English.

1. Нам краще залишитись сьогодні вдома.
2. Йому важливо проконсультуватись у лікаря ще раз.

3. Єдина правильна річ для них – це припинити палити.
4. Вони зачекають, поки ми повернемося.
5. Мені вже час іти додому.

III. Independent Work: Taking Care of Skin and Its Appendages

Exercise 1. Read and translate the text.

Taking Care of Skin and Its Appendages

The most important factors for people to keep the skin and hair attractive are those that ensure good general health. Proper nutrition and adequate circulation are vital to the health of the skin. Cleansing soap-and-water bath or shower is an important part of good grooming and health. Careful hand washing with soap and water, with attention to the under nail areas, is a simple measure to reduce the spread of disease.

Dairly brushing of the hair removes dirt and dead skin cells and distributes hair oils. Shampooing the hair prevents accumulated dirt and oils from irritating the scalp.

The skin needs protection from continued exposure to sunlight to prevent premature aging and cancerous changes. Appropriate application of sunscreens before sun exposure can prevent skin damage.

Exercise 2. Write out sentences with the infinitive or its complexes. State their forms.

Exercise 3. Translate into Ukrainian, pay attention to the infinitive complexes.
1. For you to breathe fresh and pure air is very important.
2. It is not difficult for the doctor to treat the disease.
3. The patient is said to be operated in the operating room.
4. The nurse gave the patient sedative to relive the pain.
5. It is necessary for the ear to be treated for a long time.
6. The main thing for him is to consult a doctor.
7. The injection of this drug caused the temperature to rise for a short time.
8. He ordered everything to be prepared for blood transfusion.
9. Everybody knows morphine to be dangerous in conditions of low metabolism.
10. Scientists seem to find new methods in the treatment of cancer.

Exercise 5. Translate into English using infinitive complexes.

1. Ми бачили, як хірург робив цю операцію. 2. Він сподівається, що вона повернеться в неділю. 3. Кажуть, що вони обстежують хворих за допомогою комп'ютера. 4. Було чути, як дитина співала у дитячій кімнаті. 5. Нам краще було б використати цей метод лікування. 6. Я хочу, щоб ти швидко переклав цей текст.

UNIT TEN

I	**Speaking**	Cardiovascular System. Blood
II	**Grammar**	Infinitive and Its Complexes (Revision) (§§95–100)
III	**Independent Work**	Blood Tests

I. Speaking: Cardiovascular System. Blood

After careful study of this unit you should be able to:
- *list the functions of the blood;*
- *list the main ingredients in the plasma;*
- *name three elements of the blood;*
- *define blood type;*
- *explain the effect of blood type on transfusions;*
- *define anemia and leukemia;*
- *describe the tests used to study blood.*

Exercise 1. Learn the following words by heart, remember their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
anemia [ə'ni:mjə]	anaemia	анемія
corpuscle ['kɔ:pʌs(ə)l]	corpusculum	тільце
erythrocyte [i'riθrəu,sait] (red blood cell)	erythrocytus	еритроцит
leukocyte ['lju:kəu,sait] (white blood cell)	leukocytus	лейкоцит
thrombocyte ['θrombə,sait], platelet ['pleitlət]	thrombocytus	тромбоцит
elasticity [,ilæs'tisəti]		еластичність
hemoglobin [,hi:məu'gləubin]	haemoglobinum	гемоглобін
maximal ['mæksiməl]	maximus	максимальний
hemolysis [hi:'mɒlisis]	haemolysis	гемоліз
leukemia [lju:'kimiə]	leukaemia	лейкемія
plasma ['plæzmə]	plasma	плазма
serum ['siərəm]	serum	сироватка
thrombocytopenia	thrombocytopenia	тромбоцитопенія

Exercise 2. Read the text, translate it, make up its detailed plan.

Blood

It is considered that the blood is a connective tissue, because nearly half of it is made up of cells. But the cells of the blood are not fixed in position, they move freely in the liquid portion of the blood called plasma.

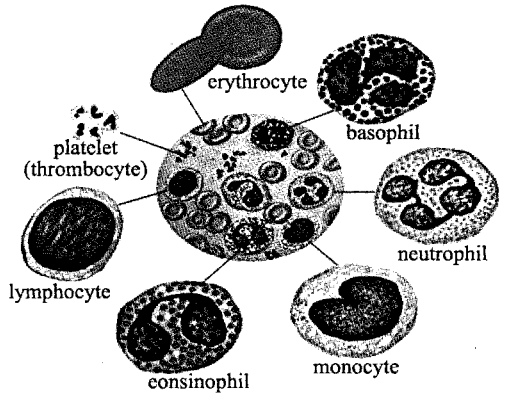


Fig. 10–1. Blood cells

The blood is the thick fluid of red color (it can be from bright scarlet to dark red, depending on how much oxygen it is carrying). The blood volume accounts for about 8 % of total body weight (about 5 liters).

The blood is carried through a closed system of vessels pumped by the heart and serves the body in three ways: transportation, regulation and protection.

The blood transports oxygen, carbon dioxide, nutrients, minerals, vitamins, waste products and hormones.

The blood regulates fluid balance, body temperature; it protects the body from blood loss and against foreign organisms.

The constituents of the blood are the plasma and formed elements. The plasma is a liquid composed of water, proteins, nutrients, minerals, waste products, hormones and other materials.

The elements of blood are erythrocytes, leukocytes and platelets (or thrombocytes). There are some types of white cells: granulocytes (include neutrophils ['nju:trə,filz], eosinophils [,i:əu'sinəfilz] and basophils ['beisəfilz]), and agranulocytes (include lymphocytes and monocytes) (Fig. 10–1).

Each element has its own function:

- erythrocytes transport oxygen;
- leukocytes destroy pathogens, so they protect the body against infection;
- thrombocytes participate in blood clotting.

There are cases when the amount of blood is severely reduced. The body cells suffer from lack of oxygen and nutrients. With the help of transfusion we can increase the amount of the blood. Transfusion is a procedure of administering blood from another person and giving it to the patient. The person who gives the blood is called the donor, and the person who receives it is called the recipient.

Human blood is divided into four groups: group AB, group A, group B, group 0. These letters indicate the type of antigen present in the red cells, with 0, indicating that neither A nor B antigen is present. It is these antigens in the donor's red cells that react with the antibodies in the patient's plasma and cause a transfusion reaction.

Persons with group 0 are said to be universal donors and the persons with group AB are called universal recipients.

To blood disorders belong anemia, leukemia, hemophilia and thrombocytopenia. Anemia is the lack of hemoglobin. Leukemia is the excess production of white corpuscles. Hemophilia is the lack of clotting factors. Thrombocytopenia is the lack of platelets.

Exercise 3. List the functions of the blood.

Exercise 4. Look at Fig. 10–1, name all the components of the blood.

Exercise 5. Find sentences describing the composition of the plasma (use the text).

Exercise 6. What is the main function of:
- erythrocytes?
- leukocytes?
- thrombocytes?

Exercise 7. Speak about groups of blood (use Table 10–1 and Fig. 10–2).

Table 10–1. **Blood Groups**

	O (I)	A (II)	B (III)	AB (IV)
Antigens	–	A	B	A, B
Antibodies	α, β	β	α	–

Exercise 8. Answer the following questions.
1) What kind of tissue is the blood? Why?
2) What color can the blood have?
3) How much blood has the human body?
4) What are the functions of the blood?
5) Can you name all constituents of the blood?
6) Whom do we call donors and recipients?
7) What is transfusion?
8) What can you tell about anemia?
9) What is leukemia?
10) What clotting disorders do you know?

II. Grammar Exercises

Exercise 1. State the forms of the infinitives in the following sentences. Translate them.

1. I can't hear a word, though he seems to be speaking.
2. I am happy not to have failed you.
3. We were sorry to find out that the surgeon we wanted to see that day was absent.
4. We didn't expect the son to come back soon.
5. One of the students was suddenly taken ill and had to be operated on immediately.
6. It is not so difficult for him to diagnose this disease.
7. He is said to enter the medical university this year again.

Exercise 2. Make up sentences with the infinitive complexes; use the tables.

(Objective)	
to want	to clear up
to expect	to make an injection
should/would like	to keep the medicine in a dark place

(Subjective)	
to see	to enter the ward
to hear	to speak English well
to watch	to be operated on
to notice	to complain of a bad headache
(Prepositional)	
It's easy for	to stay in bed
It's difficult for	to recover soon
It's important for	not to find necessary medicines

Exercise 3. Translate into Ukrainian, pay attention to the infinitive complexes.

A. 1. Вони хочуть, щоб ми прийшли до них сьогодні. 2. Ми не хочемо, щоб вона їхала від нас так швидко. 3. Мати хотіла, щоб дочка вступила до університету. 4. Лікар не хотів, щоб пацієнт їхав на південь. 5. Ніхто не хоче, щоб студенти запізнювались на лекції. 6. Я люблю, коли в кімнаті тепло. 7. Професор любить, щоб студенти задавали йому питання. 8. Чи хоче він, щоб ми прийшли сюди знову?

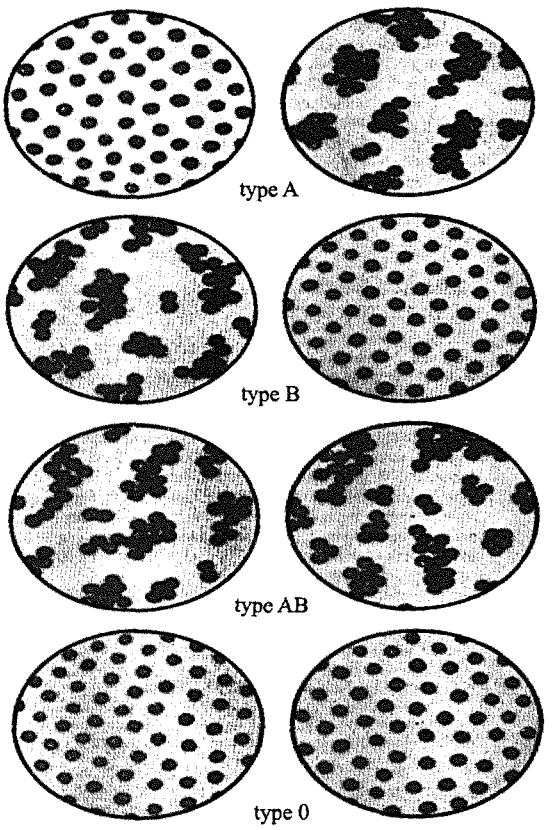


Fig. 10–2. Types of blood

B. 1. Я ніколи не чула, як він розмовляє іспанською. 2. Я бачила, що хірург зайшов. 3. Ніхто не хотів, щоб вона вийшла із зали. 4. Він побачив, що столик поламаний. 5. Ви чули, що він мене питав? 6. Я бачив, що двері відчинились і хтось зайшов у лабораторію. 7. Я знаю, що він дуже хороший лікар. 8. Ви вважаєте, що він досвідчений хірург?

C. 1. Кажуть, що він у Києві. 2. Відомо, що вона має свою думку. 3. Здається, він добре знає цей предмет. 4. Кажуть, що цей будинок побудований біля сотні років тому. 5. Вважають, що вона очолить нову фірму. 6. Він, очевидно, не знає французької. 7. Було чути, як голосно плаче дитина.

D. 1. Вам необхідно бути тут через дві години. 2. Йому легко це зробити. 3. Вашій сестрі необхідно його зустріти біля лікарні. 4. Текст був важкий, щоб перекласти його без словника. 5. Вже пізно, щоб діти йшли гуляти. 6. Необхідно, щоб документи були відіслані сьогодні.

III. Independent Work: Blood Tests

Exercise 1. Read the text, translate it.

Blood Tests

Many kinds of studies may be made on the blood:

1. The hematocrit, the volume percentage of red blood cells in the whole body, is determined by a high-speed centrifuge for 3–5 minutes; and the cellular elements are separated from the plasma. For males, the normal range is 42–54 ml per 100 ml blood. For females the range is slightly lower – 36–42 ml per 100 ml blood.
2. Hemoglobin tests are done to measure the oxygen level and the color of the blood is compared with a known color scale. Electrophoresis is done to measure normal or abnormal types of hemoglobin. Hemoglobin is expressed in grams per 100 ml whole blood. In males the normal range is 14–17 g per 100 ml, in females – 12–15 g per 100 ml blood.
3. Blood cell counts are used to count erythrocytes and leukocytes.
4. Complete blood count (CBC) includes the examination of a stained blood slide under the microscope.
5. Blood chemistry tests include tests for electrocytes, such as sodium, potassium, chloride, bicarbonate, glucose, enzymes, hormones and waste products.
6. Coagulation studies are to know the time for the clot formation, bleeding time, capillary strength, platelet function.
7. Bone marrow biopsy gives valuable information to diagnose bone marrow disorders, leukemia and anemia.

Exercise 2. Read the text. Find passages about the count of leukocytes and erythrocytes, and translate them. Memorize the number of WBC and RBC.

Corpuscular Elements of Blood

Blood is a fluid tissue with many various functions. Not only important physiological process takes place in the blood but it determines the activity of widely separated body cells.

Blood is composed of plasma and the corpuscular elements which are called red corpuscles or erythrocytes, white corpuscles or leukocytes and blood platelets or thrombocytes.

It is generally considered that no sex differences exist in the count of white corpuscles or leukocytes. The count of leukocytes in the blood of a healthy person is 4,500 to 9,500 per cu. mm (cubic millimeter). When the number of white blood cells (WBC) is counted after mental or physical exertion, meals and mild activity, it may increase to 10,000 and more per cu. mm.

It is estimated that the erythrocytes are the most numerous cellular elements, ranging from 4,000,000 to 5,000,000 per cu. mm. The red blood cell count (RBC) may change with age; when the red blood cell count is done after physical exertion and emotions, it may increase.

One knows that the red corpuscles have two physical features which are very important in the function of respiration. They have great elasticity and flexibility. These features give them the possibility to pass through very small capillaries. The discoid form of the corpuscle gives it a maximal surface for a given mass.

The most important part of the red cell is its red coloring substance or hemoglobin which on an average forms about 36 % of its mass.

The total blood volume is divided into circulating and deposit volumes.

The average human blood volume is not less than 7.5 % but not more than 10 % of the body weight. It is generally stated that the circulating volume averages smaller in females than in males. The circulating volume of the blood depends on the changes of the air temperature.

Exercise 3. Complete the sentences choosing the necessary word combinations.

1. The most numerous cells of blood are ...
   a) white blood corpuscles.
   b) red blood corpuscles.
   c) blood platelets.
2. Blood is ...
   a) a connective tissue.
   b) a muscular tissue.
   c) a fluid tissue.
   d) a nervous tissue.
3. The right ventricle discharges the blood to the lungs ...
   a) through the aorta.
   b) through the pulmonary arteries.
   c) through the portal vein.
4. The blood is discharged out ...
   a) of the ventricles.
   b) of the atria.

Exercise 4. Read and memorize these interesting facts.

Do you know that:

1) each erythrocyte lives 120–130 days?
2) each leukocyte lives 4–7 days?
3) every day 200,000,000 erythrocytes are born and the same number dies?

Exercise 5. Read the sentences and say what they are about.

1. These corpuscles have great elasticity and flexibility. These features give them the possibility to pass through very small capillaries. 2. The count of these corpuscles in the blood of a healthy person is from 5,000 to 7,000 per cu. mm. The number of these corpuscles increases when a person becomes ill.

UNIT ELEVEN

I	**Speaking**	Cardiovascular System. Heart
II	**Grammar**	Participles I, II (§101)
III	**Independent Work**	Heart Sounds

I. Speaking: Cardiovascular System. Heart

After careful study of this unit you should be able to:
– define the location of the heart;
– name four chambers of the heart;
– name four valves;
– characterize the chambers of the heart;
– describe the muscular structure;
– name three groups of vessels;
– classify heart diseases;
– describe approaches to the treatment of heart diseases.

Exercise 1. Read and learn the following words by heart, remember their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
heart	cor, cordis/cardio-	серце
vascular [ˈvæskjʊlə]	vascularis	судинний
vessel	vas, vasis/angio-	судина
apex [ˈeipeks]	apex	верхівка
pericardium [periˈkɑ:diəm]	pericardium	перикард
costal [ˈkɒstəl]	costalis	реберний
septum [ˈseptəm]	septum	перегородка
atrium [ˈætriəm]	atrium	передсердя
ventricle [ˈventrikl]	ventriculus	шлуночок
valve [ˈvælv]	valva	клапан
fibrous [ˈfaibrəs]	fibrosis	волокнистий
systemic [sisˈtemik]	systemicus	системний
pulmonary [ˈpʌlmənəri]	pulmonalis	легеневий
portal [ˈpɔ:t(ə)l]	portalis	портальний
lung [lʌŋ]	pulmo-/pneumo-	легеня

Exercise 2. Learn the words.
interspace [ˌintəˈspeis] проміжок; інтервал
mitral [ˈmaitrəl] мітральний
tricuspid [traiˈkʌspid] тристулковий
semilunar [ˌsemiˈlu:nə] (на)півмісяцевий; серповидний
triangular [ˌtraiˈængju:lə] трикутний; тригранний
within – в, у межах; всередині
separate [ˈseprət] окремий, відокремлений; відокремлювати(сь)
thick – товстий; щільний; густий
coat [kəʊt] оболонка; наліт; шар
dilate [daiˈleit] розширювати(сь)
contract [kənˈtrækt] скорочуватись

Exercise 3. Read and translate the following word combinations.

Chamber ['tʃeimbə]: the heart consist of two separate chambers: the right atrium and the right ventricle are in the right chamber;

thick [θik]: a thick wall; the walls of the left atrium are thick; the left ventricle has thick walls;

pulmonary: pulmonary artery, pulmonary circulation; pulmonary diseases; pulmonary function; pulmonary valve;

dilate: dilated; to be dilated, the vessels dilate; the heart dilates and contracts.

Exercise 4. Read the text and retell it.

Heart and Vascular System

The heart is an inner hollow muscular organ placed within the chest and included in the pericardium. The base of the heart is against the third rib. Its apex is against the interspace between the fifth and sixth costal cartilages. The weight of the heart is about 300 g in the male and about 220 g in the female.

The heart consists of two separate chambers divided by the septum. Each of the chambers has two connected parts: the atrium and the ventricle. The atrioventricular valves separate the atria from the ventricles.

In the left chamber the atrium and ventricle are separated by the mitral valve. In the right chamber the atrium and ventricle are separated by the tricuspid valve.

At the point of origin of the aorta in the left ventricle another valve is located. This valve is called the semilunar valve of the aorta.

At the point of origin of the pulmonary artery in the right ventricle the fourth valve is located. It is called the semilunar valve of the pulmonary artery.

The right atrium is larger than the left one, but the walls of the left atrium are thicker than those of the right one. The right ventricle is triangular in form and has thick walls. The right ventricle is in the anterior part of the heart. The left ventricle is longer and more conical than the right one. The walls of the left ventricle are three times as thick as the walls of the right one. The valves are located at the entrance and exit of each ventricle.

The muscular structure of the heart consists of fibrous bands divided into two groups; the first ones are the fibrous bands of the atria and the second ones are the fibrous bands of the ventricles.

The vascular system consists of three groups of vessels: arteries, veins and capillaries.

The vessels carrying blood to and from the tissues of the body compose the general system. They are called the systemic vessels.

The pulmonary system is formed by the vessels carrying blood to and from the lungs.

The portal system is formed by the veins passing to the liver.

Most of the arteries are composed of three coats. The arteries dilate and contract simultaneously with the action of the heart.

Exercise 5. Describe the structure of the heart.

Exercise 6. Read and translate the text, make up questions based on it.

Work of Human Heart

The human heart contracts from the first moment of life until the last one. The contractions of the heart pump the blood through the arteries to all the parts of the body. Scientists have determined that the total weight of blood pumped by the heart daily is about ten tons.

The rate of heart contractions is regulated by two groups of nerve fibers: it varies in different persons and at different age.

Physiologists have determined that in the adult the heart makes from 60 to 72 beats per minute. In children the rate of heartbeat is much higher. Research work of many scientists has helped to determine that the rate of heartbeat increases depending on different emotions.

Each beat of the heart is followed by a period of rest for the cardiac muscle. Each wave of contraction and a period of rest following it compose a cardiac cycle.

Research work has given physiologists the possibility to find out that the muscle works or contracts about one third of the person's life. The period of rest is shorter during greater physical exertion and longer when the body is at rest.

Each cardiac cycle consists of three phases: physiologists have called the first phase of short contraction of both atria the atrial systole [ˋsistəli]. They have called the second phase of a more prolonged contraction of both ventricles the ventricular systole. The period of rest of the cardiac muscle is called the diastole [dai'æstəli].

The left ventricle discharges the blood received by the left atrium from the pulmonary circulation through the aorta to the systemic circulation.

The blood received from the systemic circulation by the right atrium is discharged out of the right ventricle to the lungs through the pulmonary arteries.

Prolonged research work of many physiologists has given the possibility to estimate the role of the ventricles which serve as the main pump. The atria act as receiving chambers. The contraction of the atria which sends the final portion of the blood into the ventricle is considerably less.

Exercise 7. Read the text and speak about heart diseases and their treatment.

Heart Diseases

There are many ways of classifying heart diseases. The anatomy of the heart forms one group of heart pathology:

1. Endocarditis [ˌendəuka:'daitis] means "inflammation of the lining of the heart cavities" but it most commonly refers to valvular disease.

2. Myocarditis [ˌmaiəuka:'daitis] is the inflammation of the heart muscle.

3. Pericarditis [ˌperi:ka:'daitis] refers to disease of the serous membrane on the heart surface, as well as that lining the pericardial sac.

These inflammatory diseases are often due to infection. They may also occur secondary to respiratory or other systemic diseases.

Another classification of heart diseases is based on causative factors:

1. Congenital heart disease is present at birth.

2. Rheumatic [ru:ˈmætik] heart disease begins with an attack of rheumatic fever in childhood or in youth.

3. Coronary [ˈkɔ:rənəri] heart disease involves the walls of the blood vessels that supply the muscle of the heart.

4. Heart failure [ˈfeiliə] (недостатність) is due to deterioration of the heart tissues and is frequently the result of long-term disorders such as high blood pressure.

To treat most heart diseases doctors prescribe digitalis [ˌdidʒi:ˈteilis] (наперстянка). This agent slows and strengthens contractions of the heart muscle.

Several forms of nitroglycerin are used to relieve angina pectoris [ænˈdʒainəˈpektəris] (грудна жаба, стенокардія).

Beta-adrenergic blocking agents (бета-адреноблокатори) control sympathetic stimulation of the heartbeat.

Anticoagulants ([ˌæntikəuˈægjulənts] – антикоагулянти) also are valuable drugs for heart patients. Today there are a lot of medicines used to treat heart patients.

Exercise 8. Communication situation: *At the Cardiologist's.*

You work as a cardiologist at a polyclinic. You are talking to a woman who complains of heart trouble. Interview her according to the following plan:

a) General data: 1. Her first name, surname. 2. Her age. 3. Her profession. 4. The conditions of her work. 5. Her living conditions. 6. If her husband is well. 7. If she has any children. 8. If her parents are living and well.

b) Her previous diseases: 1. If she has been ill formerly. 2. If she has had any wounds (contusions). 3. If she has been operated.

c) Her complaints: 1. What she complains of. What she suffers from. 2. When she fell ill. 3. What the first signs of the disease were. 4. If her pains depend on the weather or her nervous state. 5. After what she feels worse (better). 6. If she has pains in the heart region.

d) Her last treatment: 1. If a doctor consulted her. 2. If she was treated in a hospital. 3. When and where she was treated. 4. What treatment she was prescribed.

Exercise 9. Learn the expressions by heart.

dear heart – любий, милий, душа моя (у звертанні)
to learn by heart – вчити напам'ять
to take heart – набиратися духу; триматися мужньо
to wear one's heart on one's sleeve – не відзначатися стриманістю
to have one's heart in one's boots – злякатися
to take words to heart – брати слова близько до серця
heart-to-heart conversation – щира, відверта розмова

II. Grammar Exercises

Exercise 1. Define the suffixes and prefixes of the words and translate them into Ukrainian.

Indefinite, impossible, illegal, irregular, unwritten, misspell, unsuitable, retirement, incidentally, uninteresting, indifference, noneffective, misinform, demobilize, rewrite, prewar, antiatomic.

Exercise 2. Fill in the blanks with the words given below.

1. If you catch influenza, you are attended by a … .
2. If your nerves are out of order, you go to a … .
3. If you have a toothache, you are consulted by a … .
4. If something gets into your eye, you go to see an …
5. If you have a sore throat, you go to a … .
6. If you have a heart attack, you call a … .

(therapeutist, ophthalmologist, neuropathist, laryngologist, cardiologist, stomatologist)

Exercise 3. Choose the necessary participle. Translate the sentences.

1. The blood vessels *(located, locating)* on the anterior surface of the arm were dilated. 2. The vessels *(carried, carrying)* blood to the heart are called veins. 3. The lungs are the inner organs *(included, including)* in the thoracic cavity.

Exercise 4. Read the following sentences and define instead of what words the substitutes *one – one's, that – those* are used.

1. The condition of patient M. is worse than that of patient N. 2. The number of the vertebrae in the coccyx is less than the number of those in the neck. 3. The bones of the lower extremities are longer than those of the upper ones.

Exercise 5. Write out sentences with participles I and II from the text "Heart and Vascular System".

Exercise 6. Form the past participle of the verbs given in brackets. State their functions. Translate the sentences.

1. The patient *(admit)* to the hospital was a 45-year-old female. 2. The inner organs *(include)* in the thoracic cavity are the heart and the lungs. 3. The blood *(carry)* to the lungs is called venous blood.

Exercise 7. Translate into English.

1. Прооперований пацієнт мав серцеву недостатність. 2. Обстежуючи хворого, лікар виявив ваду серця. 3. Кров, повертаючись із легень, входить у ліве передсердя. 4. Артеріальна кров, що повертається з легень, насичена киснем. 5. У читальній залі кардіолог розповідав студентам про цей випадок. 6. Зайшовши у палату, медсестра побачила дитину, яка читала книгу. 7. Перев'язуючи рану вдруге, медсестра побачила, що шкіра навколо почервоніла. 8. Хворі, прооперовані відомим хірургом, швидко одужували.

III. Independent Work: Heart Sounds

Exercise 1. Read the text and say what data important for a future doctor are given in it.

Heart Sounds

When we listen to the heart, we can hear two sounds. The third sound is also heard in some persons.

The first heart sound is the longest one. It is heard at the moment of contraction of the ventricles when the atrioventricular valves close.

The second sound lasts for a shorter period of time. It is heard at the moment when the pulmonary and aortic semilunar valves close.

The third heart sound is heard when the blood is passing from the atria into the ventricles.

The first and the second cardiac sounds are heard over all the portions of the heart and often over the large vessels. The first heart sound is greater over the surface of the ventricles and it is the greatest over the surface of the mitral and tricuspid valves. The second heart sound is heard loudest over the aorta and the pulmonary artery.

Heart sounds are also heard over some portions of the chest. Normally the first heart sound is heard over the apex of the heart in the fifth costal interspace. The second sound is heard best over the pulmonary artery and the aorta, that is in the second left and right costal interspaces. The aortic sound is normally louder than the pulmonic sound.

The heart sounds are very important in the clinical diagnosis and doctors determine many cardiac diseases by heart sounds.

Exercise 2. Answer the questions based on the text.

1. How many heart sounds do we hear when we listen to the heart? 2. When is the first heart sound heard? 3. When is the second heart sound heard? 4. At what moment is the third heart sound heard? 5. Where is the first heart sound heard louder? 6. Over the surface of what valves is the first heart sound heard loudest? 7. Where is the second heart sound heard loudest? 8. In which costal interspaces is the first heart sound heard best? 9. In which costal interspaces is the second heart sound heard best? 10. Which of the two sounds – aortic or pulmonic — is louder normally? 11. What do heart sounds help doctors to determine?

Exercise 3. Translate the following sentences into Ukrainian, name participle I or II.

1. The man examining the patients is my uncle. 2. The infected tooth was extracted. 3. The patient operated some days ago feels much better. 4. The case discussed was very interesting. 5. Measures taken in time prevented the spreading of disease. 6. Anatomy is the science of the bodily structure of living organisms. 7. The arterial blood coming from the lungs is rich in oxygen. 8. From the lungs well-oxygenated blood returns through the pulmonary veins to the left atrium.

UNIT TWELVE

I	**Speaking**	Cardiovascular System: Vessels and Blood Circulation
II	**Grammar**	Functions of Participles in Sentences (§102)
III	**Independent Work**	Cardiovascular Diseases

I. Speaking: Cardiovascular System. Vessels and Blood Circulaton

After careful study of this unit you should be able to:
- *name three types of vessels;*
- *compare the locations and functions of the pulmonary and systemic circuits;*
- *name the arteries of the systemic circuit;*
- *name the veins of the systemic circuit;*
- *explain the physiology of circulation;*
- *define pulse and blood pressure;*
- *list disorders of the blood vessels.*

Exercise 1. Translate the following indefinite personal sentences.

1. It is known that the blood becomes oxygenated in the lungs. 2. They say that patient Smirnov's health will be restored soon. 3. One knows that pulse rate becomes rapid on physical exertion. 4. It is estimated that his body weight decreased considerably during the prolonged illness.

Exercise 2. Read and translate the following sentences.

1. When a muscle fiber contracts so that its length does not change, one of the discs becomes shorter and the other one – longer. 2 The pressure in the cranial cavity is increased as a result of the increase in arterial pressure. 3. In the man the corpuscles may compose from 39 to 50 per cent of the blood volume. 4. Can life exist without oxygen? 5. A cardiac cycle is composed of the wave of contraction and a period of rest. 6. In the human body sex differences exist in the inner organs and their functions.

Exercise 3. Read the passages and answer the questions.

1. This substance is composed of plasma, red corpuscles, white corpuscles and platelets. *What substance is it?*

2. These cellular elements are the most numerous in the blood. They range from 4 to 5 million per cu mm in healthy adults. Their color(ing) is red. *What cellular elements are they?*

3. This blood is brought to the heart from systemic and portal circulations. It enters the right atrium of the heart. Then this blood passes into the right ventricle. From the right ventricle this blood passes into the pulmonary artery. *What blood is it?*

Exercise 4. Say what heart valve is described in each sentences.

1. This valve connects the atrium and the ventricle of the left heart chamber. 2. This valve connects the atrium and the ventricle of the right heart chamber. 3. This valve is located at the point of origin of the pulmonary artery in the right ventricle.

Exercise 5. Combine the nouns with appropriate verbs.

The heart, the blood, the artery, contract, pass, dilate, bring, regulate, pump, vary, beat, compose, work, consist of, discharge, receive, enter, act, serve, send, oxygenate, carry.

Exercise 6. Translate into Ukrainian.

1. The human heart begins to beat and pump blood quicker than usual during emotional stress. 2. The human heart makes 60–80 contractions per minute. 3. On physical exertion the heart has a short period of rest and the diastole becomes less. 4. The heart acts as a pump discharging the blood to the peripheral and pulmonary systems. 5. Ten tons of blood are pumped through the heart daily. 6. John Floyer, an English doctor (1694–1734), was the first scientist to find out the varying rate in men.

Exercise 7. Learn the following words by heart, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
artery ['ɑ:təri]	arteria	артерія
aorta [ei'ɔ:tə]	aorta	аорта
arteriole [ɑ:'tieri,əʊl]	arteriola	артеріола
circuit ['sɜ:kit]	circulus	коло
vein [vein]	vena/phleb(s)	вена
venule ['vɛnju:l]	venula	венула
pulmonary	pulmonalis	легеневий
camera, chamber	cavum	порожнина
inferior [in'fiəriə]	inferioris	нижній
superior [sju:'piəriə]	superioris	верхній
capillary vessel [kə'piləri]	vas capillare	капілярна судина

Exercise 8. Lean the pronunciation of the following words.

respiratory ['respərətɒri] дихальний
lateral ['lætərəl] боковий
mediastinum [,mi:diə'stainəm] середостіння
pleura ['plʊərə] плевра
lobe [ləʊb] доля
serous ['siərəs] серозний, сироватковий
visceral ['visərəl] що стосується нутрощів
subserous [sʌb'siəres] підсерозний
extend [iks'tend] простягатись
upward ['ʌpwəd] вгору
level ['levl] рівень
vary ['vɛəri] мінятись; змінюватись
proper ['prɒpə] правильний, відповідний; властивий, притаманний

Exercise 9. Fill in the blanks, use the words: *varies, covered, extends, heavier.*

1. The aorta … from the upper part of the left ventricle. 2. The shape of the vessels … when they dilate. 3. The right lung is … than the left one. 4. The lungs are … with the pleura.

Exercise 10. Read the text, translate it.

Blood Vessels and Blood Circulation

The blood vessels together with the four heart chambers form a closed system for the flow of blood. They are divided into three groups: arteries carry blood from the ventricles (pumping chambers) of the heart out to the capillaries in the tissues (the smallest arteries are called arterioles); veins drain capillaries in the tissues and return the blood to the heart (the smallest veins are called venules); capillaries allow for exchanges between the blood and body cells or between the blood and air in the lung tissues. The capillaries connect the arterioles and venules. Aorta is the largest artery with thick walls because it receives blood under the highest pressure from the left ventricle.

All vessels together make up two circuits: pulmonary and systemic. Pulmonary vessels carry blood to and from the lungs. Systemic arteries and veins serve the rest of the body, supplying nutrients and oxygen to all the tissues and carry away waste materials from the tissues for disposal (Fig. 12–1).

We know that the venous blood from the systemic and portal circulation is brought to the right atrium of the heart. When the pressure in the right atrium has increased, the blood passes into the right ventricle from the right atrium.

During the systole of the ventricle the blood is pumped from the right ventricle into the pulmonary artery. When the right ventricle has pumped the venous blood into the pulmonary artery, it enters the pulmonary circulation. The blood is brought to the lungs through the pulmonary artery. In the lungs the venous blood discharges carbon dioxide. When the blood has discharged carbon dioxide, it takes in oxygen in the lungs.

The blood, which has become oxygenated, passes from the venous part of the pulmonary capillary system into the veins, and venules. When the oxygenated blood has passed the four pulmonary veins, it is brought to the left atrium of the heart.

Under the pressure in the left atrium the arterial blood, which the pulmonary veins have brought to the heart, is pumped into the left ventricle. During the prolonged contraction of the left ventricle, the so-called ventricular systole, the arterial blood is pumped into the aorta. When the left ventricle has pumped the arterial blood into the aorta, it is carried through the arteries to all the parts of the body.

We can control the work of our heart feeling the pulse. It is the wave of pressure that travels along the arteries as ventricles contract (about 70–80 times per minute). The pulse can be felt in any artery that is relatively close to the surface. We can only press the vessel down against a bone. Usually we feel the pulse on the radial artery on the wrist.

Blood pressure (BP) is the force exerted by the blood against the walls of the vessels. We measure BP with the help of sphygmomanometer [ˌsfigməʊmqˈnɒmitə], and two variables are measured: systolic, which occurs during heart muscle contraction,

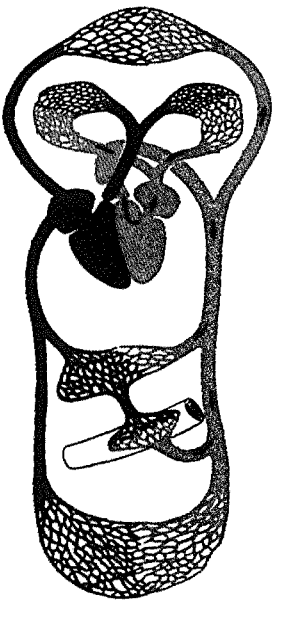


Fig. 12–1. Two circuits of blood circulation

and diastolic, which occurs during relaxation of the heart muscle. The normal BP in adults is 120 to 80 mm Hg.

Exercise 11. Find English equivalents in the text.

Легеневе коло кровообігу, несуть кров до і від легенів, постачаючи поживними речовинами, повертають кров до серця, найвищий тиск, виштовхується з правого шлуночка до легеневої артерії, коли шлуночки скорочуються, можна відчути, просто притиснути, виміряти кров'яний тиск, що з'являється під час розслаблення.

Exercise 12. Read the following sentences and say what they are about.

1. This part of the heart discharges the blood received from the pulmonary circulation through the aorta to the systemic circulation. 2. This part of the heart discharges the blood received from the systemic circulation to the lungs through the pulmonary arteries.

Exercise 13. Read the list of disorders involving the blood vessels. Try to memorize these diseases.

1. Hypertension (high BP).
2. Hypotension (low BP).
3. Aneurysm (weakness of vessels).
4. Arterial degeneration:

– atherosclerosis (fatty deposits in vessels, may result in thrombus);

– arteriosclerosis (hardening of arteries with scar tissue or calcium salts, may result in ischemia and cell necrosis).

5. Hemorrhage (massive loss of blood).
6. Shock (inadequate output of blood from the heart).
7. Varicose veins (swelling of veins in legs and rectum).
8. Phlebitis (inflammation of a vein).
9. Embolus (a piece of clot travelling in the circulation).
10. Pulmonary embolism (a clot lodged in lungs).

Control Tests. Cardiovascular System

1. We check BP with ___.
   A. cardiogram
   B. tonometer
   C. stethoscope
   D. fingers
   E. palpation

2. The greater circulation begins with ___.
   A. the right heart
   B. the left ventricle
   C. the right atrium
   D. the right ventricle
   E. the left atrium

3. Between the right and left heart there is ___.
   A. an artery
   B. a vessel
   C. a septum
   D. a valve
   E. a wall

4. Between the chambers in the heart there are ___.
   A. valves
   B. boxes
   C. walls
   D. septa
   E. vessels

5. The heart has ___ chambers.
   A. two
   B. three
   C. four
   D. six
   E. eight

6. Where isn't the heart situated?
   A. In the chest
   B. In the left part of the thorax
   C. In the right part of the thorax
   D. Above the diaphragm
   E. Between the lungs

7. What part doesn't belong to the heart?
   A. Chamber
   B. Atrium
   C. Valve
   D. Stomach
   E. Ventricle

8. How many blood circulations are there in the human body?
   A. 3
   B. 4
   C. 5
   D. 2
   E. 6

9. What science studies the diseases of the heart and blood vessels?
   A. Pathology
   B. Biology
   C. Cardiology
   D. Genetics
   E. Physiology

10. What valve is there between the left atrium and ventricle?
   A. Tricuspid
   B. Aortic
   C. Venous
   D. Mitral
   E. Arterious

11. How do we call the valve between the right atrium and ventricle?
   A. Tricuspid
   B. Aortic
   C. Mitral
   D. Venous
   E. Arterious

12. How many ventricles does the human heart have?
   A. 2
   B. 3
   C. 4
   D. 1
   E. No

13. The heart and blood vessels form the ___.
   A. digestive system
   B. nervous system
   C. urinary system
   D. cardiovascular system
   C. endocrine system

14. Hypertension is the ___.
   A. low BP
   B. high BP
   C. atonia
   D. dystonia
   E. lack of vitamins

15. A red blood cell is ___.
   A. leukocyte
   B. monocyte
   C. phagocyte
   D. erythrocyte
   E. granulocyte

16. There are ___ groups of blood.
   A. 2
   B. 3
   C. 4
   D. 5
   E. 6

17. The largest arterial vessel is ___.
A. artery
B. vein
C. capillary
D. aorta
E. membrane

18. What medicine is used to prevent the formation of blood clots?
A. Anticoagulant
B. Digitalis
C. Nitroglycerine
D. Menthol
E. Sedative

19. Leukocytes are ___ blood cells.
A. red
B. green
C. white
D. blue
E. yellow

20. The heart cycle is ___.
A. tachycardia and bradycardia
B. tachycardia and hypotension
C. systole and diastole
D. tachypnea and dyspnea
E. spasm and relaxation

21. What is the universal group of blood?
A. 0
B. 1
C. 2
D. 3
E. 4

22. How do we call the person who gives his blood to another person?
A. Recipient
B. Patient
C. Doctor
D. Visitor
E. Donor

23. What does hemopoiesis mean?
A. Formation of blood
B. Formation of cells
C. Formation of urine
D. Formation of energy
E. Formation of lymph

24. What is the synonym of *thrombocytus*?
A. Hemoglobin
B. Protein
C. Platelet
D. Blood clotting
E. Plasma

25. What doesn't belong to the organs of the cardiovascular system?
A. Spleen
B. Heart
C. Pancreas
D. Liver
E. Blood vessels

26. What is the role of valves in the heart?
A. To pump the blood from the heart
B. To prevent flow of blood into the atrium
C. To promote contractions of the heart
D. To promote relaxation of the heart
E. To make beatings of the heart

27. The middle, the thickest layer of the cardiac wall is ___.
A. pericardium
B. endocardium
C. cardiac membrane
D. cardiac sack
E. myocardium

28. What is the other name of the lesser blood circulation?
A. Pulmonary
B. Cardiac
C. Gastric
D. Cervical
E. Thoracic

29. When the blood is given from one person to the other, it is ___.
A. presenting
B. injecting
C. suffering
D. transfusing
E. carrying

30. The science which studies the causes of diseases.
A. Etiology
B. Pathology
C. Psychology
D. Cardiology
E. Cytology

31. What does the blood receive in the lungs?
A. Vitamins
B. Carbon dioxide
C. Hemoglobin
D. Oxygen
E. Bacteria

32. What blood comes into the left heart?
A. Venous
B. Arterial
C. Oxygenated
D. Dark red
E. Scarlet

33. What is the normal blood pressure of young people?
A.130 over 90
B. 120 over 80
C. 150 over 100
D. 140 over 90
E. 200 over 110

34. What does the heart pump?
A. Plasma
B. Lymph
C. Urine
D. Water
E. Blood

35. What is the normal heartbeat in adults?
A. About 60–70 beats per minute
B. About 100 beats per minute
C. About 110 beats per minute
D. About 60–70 beats per hour
E. About 50 beats per minute

36. Where do we usually check the pulse?
A. Over the radial artery
B. Over the temporal bone
C. Over the knee
D. Over the elbow
E. Over the cardiac area

37. The blood of greater circulation returns to the heart by means of ___.
A. arteries
B. veins
C. lungs
D. vessels
E. mechanisms

38. The person to whom the blood is given.
A. Doctor
B. Nurse
C. Obstetrician
D. Donor
E. Recipient

39. The pulmonary circulation begins with ___.
A. the left heart
B. the right ventricle
C. the right atrium
D. the left ventricle
E. the left atrium

40. The blood cell has no ___.
A. enzymes
B. leukocytes
C. platelets
D. erythrocytes
E. plasma

41. The function of the blood doesn't include ___.
A. regulation of body temperature

B. transporting nutrients to cells
C. production of hormones
D. immunization against foreign particles
E. supplying oxygen to cells

42. The inflammation of veins is ___.
A. arthritis
B. chondritis
C. phlebitis
D. cystitis
E. carditis

43. The blood vessels which have the lowest BP.
A. Arterioles
B. Venules
C. Capillaries
D. Arteries
E. Veins

44. When body temperature is 1° higher, the pulse rate is ___ faster.
A. 2–3 beats
B. 4–6 beats
C. 7–8 beats
D. 1–2 beats
E. 8–10 beats

45. What does arterial pressure mean?
A. Pressure on the arterial walls
B. Pressure on the venous walls
C. Pressure on the capillary walls
D. Pressure on the vessel walls
E. Pressure on the walls of the heart

46. What symptom isn't characteristic of cardiovascular diseases?
A. headache
B. heartache
C. sneezing
D. stomachache
E. cough

47. What information is given in the temperature chart?
A. Pulse, t°, BP
B. Pulse, t°
C. t°, BP
D. Pulse, BP
E. Only t°

48. What is bradycardia?
A. Slower heart rate
B. Normal heart rate
C. Faster heart rate
D. Work of the heart during sleep
E. Work of the heart after exercises

49. What is tachycardia?
A. Slower heart rate
B. Normal heart rate
C. Faster heart rate
D. Work of the heart during sleep
E. Work of the heart after exercises

50. What does the term "arythmia" mean?
A. Slower heartbeat
B. Normal heartbeat
C. Faster heartbeat
D. Absence of heartbeat
E. Changes in heartbeat

II. Grammar Exercises

Exercise 1. Form adjectives using the suffix *-able*, translate them.
Consider, change, depend, vary, eat, question, work.

Exercise 2. Name and translate the verbs from which the following nouns are formed.
Operation, circulation, estimation, radiation, location, separation, graduation, dilation, regulation.

Exercise 3. Insert *already* or *yet*. Translate the following sentences.
1. Scientists have introduced this term. 2. Researchers have not found out the origin of this disease. 3. Physiologists have estimated the importance of this great discovery. 4. They have not published the book on their discoveries.

Exercise 4. Put the verbs into the correct form. Translate the following sentences.
1. The nurse already *(to take temperature)*. 2. The doctor not *(to use)* this method of treatment. 3. She not *(to see)* her parents since May. 4. The nurse just *(to determine)* the patient's blood group.

Exercise 5. Choose the right answer.
1. Did scientists find out the total weight of the blood?
   a) Scientists find out the total weight of the blood.
   b) Scientists found out the total weight of the blood.
   c) Total weight of the blood was found out by the scientists.
2. Is the rate of heartbeat regulated by two groups of nerve fibers?
   a) The rate of heartbeat will be regulated by two groups of nerve fibers.
   b) Two groups of nerve fibers have regulated the rate of heartbeat.
   c) The rate of heartbeat is regulated by two groups of nerve fibers.

Exercise 6. Read the following sentences. Translate them paying attention to the words in bold type.
1. Will you **bring** me your notes on anatomy?
2. The venous blood is **brought** to the right atrium of the heart.
3. The chemical formula of **carbon dioxide** is CO_2.
4. The chemical formula of **oxygen** is O_2.
5. **Oxygen** is necessary for life.
6. **To oxygenate** means to enrich with oxygen.
7. The venous blood is **oxygenated** in the lungs.
8. The normal atmospheric **pressure** is 760 mm Hg.

Exercise 7. Form present, past and perfect participles from the following verbs. Give all types of their translation:
to restore, to introduce, to establish, to connect, to receive, to carry.

Exercise 8. Translate the following sentences, state the functions of participles in them.

1. The arterial blood coming from the lung is rich in oxygen.
2. Examining the patient the doctor asked him about his complaints.
3. Having bandaged the patient's arm, the nurse helped him to dress.
4. Being operated on, he didn't feel any pain.
5. The question discussed was very important for him.
6. When sent to the hospital he recovered soon.

III. Independent Work: Cardiovascular Diseases

Exercise 1. Read the words and word combinations from the text.

complication [ˌkɒmpliˈkeiʃn] ускладнення
coronary insufficiency – коронарна недостатність
considerable headway – значний успіх/прогрес
cause of hypertension – причина гіпертонії
to accompany [əˈkʌmpəni] супроводжувати
stage-by-stage – поетапний
emergency [iˈmɛ:ʤənsi] aid – швидка допомога
to administer – надавати (*допомогу*)
ambulance – машина швидкої допомоги
rehabilitation [ˌri:(h)əbiliˈteiʃn] відновлення працездатності; реабілітація
recuperation – відновлення здоров'я

Exercise 2. Read and translate the text.

Cardiovascular Diseases

At present scientists consider that much attention must be paid to the treatment of cardiovascular diseases. They are, first of all, arterial hypertension, then atherosclerosis, particularly of the coronary arteries, whose gravest complication is infarction of the myocardium and lastly, cardiac insufficiency caused by various diseases of the heart.

Mass scale epidemiological check-ups of population show that people contract coronary insufficiency and hypertension from 40 to 60 years of age. At the same time, nowadays one frequently meets coronary insufficiency and infarction of the myocardium in young people of 20–30 years of age. Hypertension, especially symptomatic hypertension, which is a symptom of diseases of some organs or systems, for example, of the kidneys or endocrine glands, may set in at an even earlier age than that.

Considerable headway has been registered lately in the diagnostics of symptomatic hypertension. Methods of diagnostics have been improved to the extent when it is possible to discover symptomatic hypertensions which 10–15 years ago could be found only in 5–6 per cent of patients – in 23 per cent of the patients suffering from arterial hypertension. This is of great importance for the successful combating of arterial hypertension, because the knowledge of the cause of hypertension makes it easier to prescribe its successful treatment.

Definite success has also been achieved in the treatment of atherosclerosis, coronary insufficiency and infarction of the myocardium which are closely related to it.

Exercise 3. Make up a summary of the given text using the following expressions.

1) To be of great importance; at present; scientists consider; cardiovascular diseases;

2) to give gravest complications; arterial hypertension and atherosclerosis of the coronary arteries;

3) check-ups of population; mass scale; epidemiological; to show that; not only old people; to have coronary insufficiency and infarction of the myocardium; but young people of 20–30 years of age;

4) in the treatment of some cardiovascular diseases; to have been achieved; definite success.

Exercise 4. Translate the sentences, name the form the predicate verb.

1. The borders of the heart are dilated.
2. This patient was taken to the operation yesterday.
3. The vital capacity of the lungs will be determined during examination.
4. They were examined by Prof. Bilov.

Exercise 5. Make up 5 sentences with different functions of participles in them.

UNIT THIRTEEN

I	**Speaking**	Lymphatic System and Lymphoid Tissue
II	**Grammar**	Objective Participle Construction
III	**Independent Work**	Disorders of Lymphatic System and Lymphoid Tissue

I. Speaking: Lymphatic System and Lymphoid Tissue

After careful study of this unit you should be able to:

- list three major functions of the lymphatic system;

- explain the difference between the blood and lymphatic capillaries;

- name the two main lymphatic ducts and describe the area drained by each;

- list the major structures of the lymphatic system and give the locations and functions of each.

Exercise 1. Memorize the following words, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
lymphatic vessels	vasa lymphatica	лімфатичні судини
superficial [ˌsju:pəˈfiʃəl]	superficialis	поверховий, неглибокий, зовнішній
deep	profundus	глибокий
trunk	truncus	стовбур
duct	ductus	протока
node [nəʊd]	nodus	вузол
spleen	splen/lien	селезінка
thymus [ˈθaiməs]	thymus	загрудинна залоза, тимус
tonsil [ˈtɒnsl]	tonsilla/amygdala	мигдалина

Exercise 2. Learn the following anatomical and clinical terms.

mammary [ˈmæməri] що стосується молочної залози
femoral [ˈfemərəl] стегновий
tibial [ˈtibiəl] великогомілковий
axillary [ækˈsiləri] пахвовий
inguinal [ˈiŋgwin(ə)l] пахвинний
hilus [ˈhailəs] ворота
palatine [ˈpælətain] піднебінний
pharyngeal [ˌfærinˈʤiəl] глотковий
lingual [ˈliŋgwəl] язиковий
thymosin [ˈθaiməsin] тимозин (гормон)
splenectomy [spliˈnektəmi] видалення селезінки

Exercise 3. Read the text, remember the information about the lymphatic system from your anatomy lessons.

The lymphatic system consists of capillaries, nodes, ducts and lymphatic vessels, spread through the whole body (Fig. 13–1).

About 2 liters of lymph fill the lymphatic vessels. The lymphatic capillaries drain away excess tissue fluid that does not return to the blood capillaries. Then, they are to absorb protein from the tissue fluid and return it to the bloodstream. Before the lymph reaches the veins, it flows through a series of filters, called lymph nodes, where bacteria and other foreign substances are destroyed.

Lymphatic capillaries made of endothelium allow for easy passage of soluble materials and water. The lymphatic capillary begins blindly and the other end of it communicates with the larger lymphatic vessel.

The lymphatic vessels are thin-walled and delicate, they have the valves to prevent backflow in the same way. The lymphatic vessels include superficial and deep sets. They accompany the similar veins. The lymphatic vessels are named according to their location (see Fig. 13–1).

The two terminal vessels are the right lymphatic duct and the thoracic duct.

The right lymphatic duct receives the lymph from the right side of the head, neck, thorax and the right arm and empties into the right subclavian vein.

The rest of the body is drained by the thoracic duct, which is larger than the right lymphatic duct, and it empties into the left subclavian vein.

Lymph is moved by compression of the lymphatic vessels as skeletal muscles contract during movement. The lymph nodes are made of lymphoid tissue, which is characterized by removal of impurities (carbon particles, cancer cells, pathogenic organisms, dead blood cells) through filtration and phagocytosis and production of antibodies (substances in the blood that aid in combating infection) or attacking of foreign invaders directly. The lymph nodes are small, rounded masses covered with fibrous connective capsule, they have the hilus (the exit) for lymph vessels carrying the lymph out of the node.

The nodes are the filters of lymph. Another lymphoid masses are tonsils. They are designed to filter tissue fluid. The thymus is located in the upper thorax beneath the sternum. It has been considered to be a part of the lymphatic system. The thymus plays a key role in the development of the immune system before birth and during the first few months of infancy.

The thymus is most active during early life. After puberty (період статевої зрілості), the tissue undergoes changes, it shrinks in size and is replaced by connective tissue.

The spleen is an organ designed to filter the blood. It's located in the abdominal cavity under the diaphragm, it is soft with a purplish color. It's a flattened organ about 12.5 to 16 cm long and 5 to 7.5 cm wide. The spleen has an unusually large blood supply. The function of the spleen are listed below:

1. Cleansing the blood by filtration and phagocytosis.
2. Destroying old worn-out red blood cells.
3. Producing red blood cells before birth.
4. Serving as a storage of blood.

Exercise 4. Make up a plan of the text.

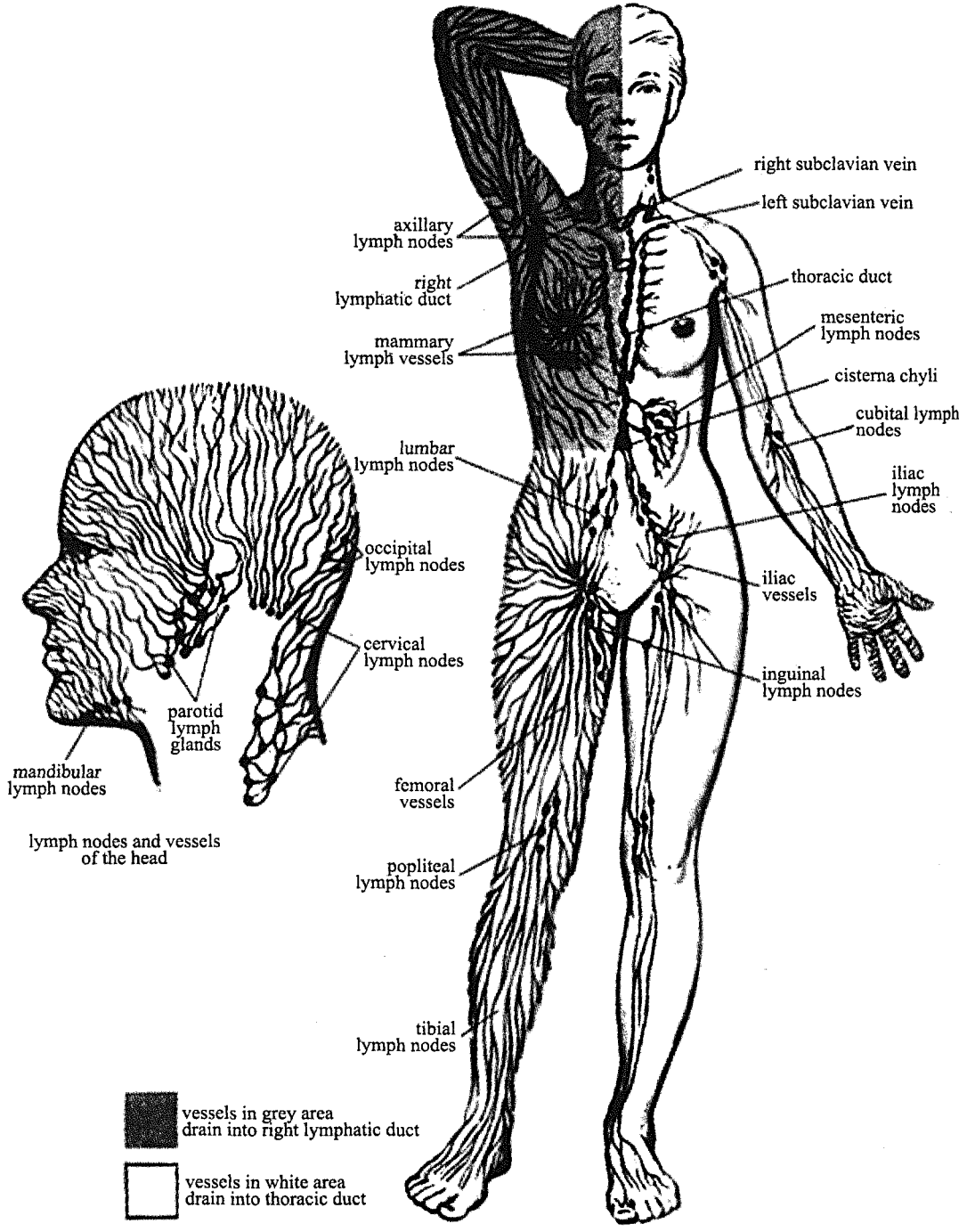
Exercise 5. Translate the passages about the thymus and the spleen.

Exercise 6. Find English equivalents in the text.

Дозволяють легко просочуватись розчинним речовинам і воді; лімфатичні і кровоносні капіляри; всмоктують білки з тканинної рідини; з'єднують із більшими лімфатичними судинами; права лімфатична протока; грудинна протока; лімфатичний капіляр з одного боку сліпий (закритий); рухається під тиском; вузли; мигдалини; за грудиною; зменшується у розмірі; очищають кров.

Exercise 7. Answer the following questions.

1. What is lymph? How much lymph is there in the body?
2. Can you characterize the lymphatic capillary?
3. What are nodes?
4. What are their functions?
5. What can you say about the lymphatic vessels?
6. What are the two main lymphatic ducts?
7. What is the thymus and what are its functions?
8. What organ is the spleen? Can man live without the spleen?
9. What are the functions of the spleen?



lymph nodes and vessels of the head

Fig. 13–1. The lymphatic system

II. Grammar Exercises

Exercise 1. Read and translate the words, pay attention to the suffixes.

a) Difference, assistance, attendance, presence, importance.

b) Ventricular, corpuscular, muscular, vascular, regular, particular.

Exercise 2. Note the translation of the Ukrainian sentence.

They say that he lives here.
Кажуть, що він тут живе. It is said that he lives here.
One says that he lives here.

Exercise 3. Name the parts of speech of the words in bold type. Translate the sentences.

1. Please **count** from one to ten.
2. You must do the white blood cell **count** of this patient.
3. You must **count** how many days on **average** we shall spend on this experiment.
4. What is the **average** temperature in the Crimea during August?
5. The doctor is going to **discharge** this patient from the hospital because his condition has become good.
6. Why does the wound continue to **discharge** much blood?
7. The **discharge** of blood out of the wound continues.

Exercise 4. Define the role and function of participles in each sentence. Translate.

A. 1. The therapeutist examined the patient yesterday. 2. The patient was examined by the therapeutist attentively. 3. The patient examined by the therapeutist yesterday felt bad. 4. The examined patient was ill with heart disease.

B. 1. The doctor saw the changed condition of the patient. 2. That was why he changed the administrations (призначення) to this patient. 3. The administrations were changed to restore his health rapidly. 4. The nurse did not forget to carry out the administrations changed by the doctor.

C. 1. The delivered lecture was very interesting. 2. The lecture delivered interested everybody. 3. The lecture delivered yesterday by Prof. Smirnov was very interesting.

Exercise 5. Define the Objective Participle Construction and translate the sentences.

1. We watched him approaching our house.
2. We heard Nina coming up the stairs slowly.
3. I saw them walking along the street.
4. He watched a boy playing on the river bank.
5. The students watched the patients being examined.
6. I saw Sydorenko running along the avenue.
7. We watched them reading an English text.

III. Independent Work: Disorders of Lymphatic System and Lymphoid Tissue

Exercise 1. Write down the following clinical terms into your vocabulary, learn their pronunciation.

lymphangitis	[ˌlimfən'ʤaitis]	лімфангіт
septicemia	[ˌsepti'si:miə]	зараження крові, сепсис
elephantiasis	[ˌelifən'taiəsis]	слоновість, слонова хвороба
lymphadenitis	[limˌfædi'naitis]	лімфаденіт
lymphadenopathy	[limˌfædi'nɒpəθi]	лімфаденопатія
infectious mononucleosis	[ˌmɒnəʊˌnju:kli'əʊsis]	інфекційний мононуклеоз
splenomegaly	[ˌsplenəʊ'mɛgəli]	збільшення селезінки
lymphoma	[lim'fəʊmə]	лімфома

Exercise 2. Read and translate the text.

Disorders of Lymphatic System and Lymphoid Tissue

There are many different disorders of the lymphatic system.

In inflammation of the lymphatic vessels called lymphangitis, red streaks can be seen extending along an extremity. Septicemia or blood poisoning may occur because of streptococci.

Elephantiasis is a great enlargement of the lower extremities resulting from blockage of lymphatic vessels with tiny parasities carried by insects (flies or mosoquitos). The disease is common in Asia and in some of the Pacific islands. No cure is known.

Lymphadenitis is the inflammation of the lymph nodes, they become larger and tender. This condition reflects the body's attempt to combat an infection.

Cervical lymphadenitis is a symptom of measles, searlet fever, septic sore throat, diphtheria.

Lymphadenopathy is the disease of lymph nodes. Splenomegaly is enlargement of the spleen, accompanies acute infections, such as scarlet fever, typhoid fever, syphilis.

Hodgkin's disease is the malignant disease with enlargement of lymph nodes, commonly occurs in young men. The nodes in the neck, armpit, thorax and groin enlarge. Chemotherapy and radiotherapy have been used with good results.

Any tumor benign or malignant occuring in the lymphoid tissue is called a lymphoma. Lymphosarcoma is a malignant tumor. It is a very rare disease. Early surgery is the only possible cure.

Exercise 3. Write out sentences with participles from the text. Name their forms and functions.

Exercise 4. Translate into English.

1. Вона бачила через вікно, що йшов сильний дощ. 2. Він хотів, щоб пацієнт одужав швидше. 3. Ти вже маєш переписаний текст? 4. Медсестра вже зробила перев'язку.

UNIT FOURTEEN

I	**Speaking**	Body Defenses
II	**Grammar**	Subjective Participle Construction (§104)
III	**Independent Work**	AIDS

I. Speaking: Body Defenses

After careful study of this unit you should be able to:
– explain the terms "immunity", "serum", "vaccine";
– list several types of inborn immunity;
– differentiate between natural and artificial acquired immunity;
– differentiate between active and passive immunity;
– define antigen and antibody;
– list several disorders of the immune system.

Exercise 1. Learn the following words by heart.
allergy ['ælədʒi] алергія
antibody [ˌænti'bɒdi] антитіло
antigen ['æntidʒən] антиген
antiserum [ˌænti'sierəm] антисироватка
acquired [ə'kwaiəd] набутий
artificial [ˌɑ:ti'fiʃiəl] штучний
autoimmunity [ˌɔ:tɒi'mju:niti] автоімунітет
gamma globulin [ˌgæmə'glɒbjʊlin] гамаглобулін
irritate ['iriteit] подразнювати
immunity [i'mju:niti] імунітет
immunization [iˌmju:nai'zeiʃn] імунізація
inflammation [ˌinflə'meiʃn] запалення
inborn ['inbɔ:n] вроджений
lymphocyte – лімфоцит
macrophage [ˌmækrə'feidʒ] макрофаг
toxin ['tɒksin] отрута, токсин
toxoid ['tɒksɔid] токсоїд, анатоксин
vaccine ['væksi:n] вакцина
pus [pʌs] гній
to get rid of – позбутися
harmful agent ['hɑ:mful'eidʒənt] шкідлива речовина

Exercise 2. Read the text, translate it, make a plan of it.

Body Defenses Against Disease

In our environment there is a great number of organisms harmful to the human being. The job of protecting us from these harmful agents belongs in part to certain blood cells and the lymphatic system, which together make up our immune system.

The human body has the ability to produce toxins, which damage the body. Inflammation is the body's effort to get rid of anything that irritates it.

Irritants can be bacteria, friction, chemicals, X-rays, fire, cuts or blows, etc.

Cells infected with viruses and certain other agents produce interferon, the substance that prevents infection of other cells.

Immunity is the power of an individual to resist or overcome the effects of a particular disease or other harmful agents.

There are two kinds of immunity: inborn and acquired. Acquired immunity can be natural or artificial; and also it can be active or passive.

Each person has his own inborn immunity. Acquired immunity is obtained during the life of the person. The immunity response is based on a reaction between antigens and antibodies. Antigens are any foreign substances entering the body.

Lymphocytes react to these foreign substances, they can destroy foreign cells directly, or release substances that stimulate other lymphocytes and macrophages in the destruction of foreign cells (clones of plasma cells). These plasma cells produce specific antibodies that circulate in the blood as gamma globulin fraction.

Each time a person is invaded by the organisms of a disease, his cells may produce antibodies that provide immunity against the infection. Such immunity may last for years and in some cases it lasts for a whole life. It is active immunity. Passive immunity is acquired by a fetus through the placenta and by infants for about six months. Nursing an infant can lengthen this period of protection owing to the presence of specific antibodies in breast milk.

Artificially acquired immunity is created by vaccination or immunization in active or passive ways. Active immunization is immunization with vaccines. Passive immunization is administration of immune serum (antiserum).

Here we can name some disorders of the immune system:

- allergy is hypersensivity to normally harmless substances (allergen);
- autoimmunity is abnormal response to body's own tissues;
- immune deficiency disease is failure in the immune system. It can be hereditary or acquired (AIDS);
- cancer may be partly due to failure of immune system, because it destroys body cells.

Exercise 3. What are the Latin/Greek equivalents of the following English words?

Cells, tissue, allergy, disease, substance, milk, bacterium, antibody, toxin, lymphocyte, macrophage.

Exercise 4. Answer the questions. What do we call:

1) a person who takes care of patients?
2) a doctor who operates on patients?
3) a doctor who treats patients with different medicines and remedies?
4) a person who discovers something new in the field of science?
5) a house where students live?
6) a grown-up person?
7) the organ which pumps the blood through the arteries and veins?

8) a fixed period of time during which students study?
9) the system of the body, which defends the organism from harmful agents?

Exercise 5. Give some examples of *inborn immunity, acquired immunity*. What is the basic difference between inborn and acquired immunity?

Exercise 6. Answer the following questions.
1) What is the subject of immunology?
2) What is active immunization?
3) What is passive immunization?
4) What takes part in immunity?
5) What is the difference between antigens and antibodies?
6) What does the term "inflammation" mean?
7) What disorders of the immune system do you know?

Exercise 7. Read the information and answer the questions.
- What is the role of vaccines?
- What vaccines are used to prevent infectious diseases?

Immunity can be provided artificially by vaccination and other forms of immunization. A vaccine is a preparation containing the offending organisms – usually in a weakened form that will not cause the actual disease. Currently there are vaccines for polio, measles, rubella, mumps, chicken pox, shingles, and some strains of influenza.

Exercise 8. Translate into English.
1. Алергія – це підвищена чутливість до алергенів.
2. СНІД – це синдром набутого імунного дефіциту.
3. Автоімунітет – це ненормальний вплив самого організму на тканини.
4. Рак може бути причиною порушень імунної системи організму, оскільки він руйнує клітини організму.

II. Grammar Exercises

Exercise 1. Read and translate the following word combinations. Name the function of participle II in them.
1) The method used in the experiment;
2) the prescribed treatment;
3) the medicines kept in cases A and B;
4) sedatives administered orally;
5) the organism protected from diseases;
6) the given amount of agents;
7) substances called antibodies;
8) drugs used for treatment of cancer;

9) the vaccine given for mumps;
10) the made tests.

Exercise 2. Translate the sentences, state the forms of the verbs.

1. Professor Petrov delivered the lecture in physiology yesterday. 2. Professor Petrov has already delivered the lecture in physiology. 3. Professor Petrov has not yet delivered the lecture in physiology. 4. Yesterday we got interesting findings after our experiments on animals. 5. We have just got some interesting findings after our experiments on animals. 6. We have not yet got any interesting findings after our experiments on animals.

Exercise 3. Find substitutes for the words and word combinations in bold type.

1. Will you take this medicine? Try it. You will feel an **immediate** relief. 2. When a doctor is listening to the patient's lungs and heart he must **put** a stethoscope on the patient's chest. 3. Students usually **go through** the necessary course of treatment at a student's hospital. 4. His pulse turned out to be **faster than normal**. 5. Oh, I'm glad you **have completely recovered**. 6. A doctor does his best **to stop** the process of patient's disease. 7. My friend tried **to make me quiet**. 8. **I want very much** to go in for sports. 9. This worker **got a written permission to be absent from work because of his illness**. 10. All my fellow students **managed to do** this work successfully.

Exercise 4. Make up sentences using the table. Translate them.

He	is said	entering the hospital.
The doctor	are seen	crying loudly in the room.
I	was heard	walking along the street.
You	were noticed	operating the patient.
They		speaking with a surgeon.

Exercise 5. Translate the following sentences paying attention to the underlined words.

1. Я часто відсилаю листи додому. 2. Я щойно відіслала цей лист до Англії. 3. Вчора я послала лист своїм батькам. 4. Вчора я відіслала лист своїй подрузі до того, як пішла на лекцію. 5. Які фотографії ти посилаєш зараз у конверті? 6. Я відішлю звіт наступного понеділка.

Exercise 6. Translate into English using the Objective or Subjective Participial Constructions.

1. Його мати хотіла, щоб він став хорошим лікарем. 2. Кажуть, що він вступає до медичного університету. 3. Чути, як медсестра готує інструменти до операції. 4. Він бачив, як я робила ін'єкцію. 5. Бачили, що вони готували пацієнтів до операції. 6. Вона бачила, як він брав книги у бібліотеці.

III. Independent Work: AIDS

Exercise 1. Read the text. Make a vocabulary of new words.

AIDS

AIDS means acquired immune deficiency syndrome. It is caused by the human immunodeficiency virus (HIV). The only identified routes of transmission are through the blood and semen contaminated with the HIV. Transmission can be through sexual contact, exposure to contamined blood and blood products (transfusions, sharing needles used for illegal IV drugs, accidental needle puncture, broken area on the skin directly exposed to contaminated blood), and from pregnant female to unborn child.

When the HIV enters the bloodstream, it attacks the immune system and weakens the person's ability to fight disease. Target cells are T-cells (type of white blood cells called lymphocytes that are produced in the thymus). Although they do not secrete antibodies, T-cells are essential for normal immune function. Without them, cell-mediated immunity deteriorates, allowing opportunistic diseases to invade the body. In response to this invasion, the body begins to produce antibodies. Within two weeks to three months after infection, these antibodies can usually be detected by a blood test.

There are three possible outcomes for individuals who become infected by HIV:

- they can remain healthy, asymptomatic carriers of the virus;
- they can develop AIDS-related complex (ARC);
- they can develop classic AIDS.

Currently, no cure exists for AIDS. All asymptomatic HIV positive persons require periodic T_4 cell tests (also called CD_4 cell count) usually every six months to monitor the status of their immune system. When the CD_4 cell count falls below 500/mm^3 (normal is 1000/mm^3), pharmacotherapy is often initiated, followed by laboratory monitoring of the T_4 cells count every three months (AIDS Guide, 1992). Because of the increased risk of opportunistic infections, additional screening tests include:

- skin tests: purified protein derivative (PPD) to rule out tuberculosis (TB);
- candida, mumps, or tetanus toxoid to evaluate patient's immune response;
- serum studies for hepatitis B antibodies.

Exercise 2. Make a summary to retell the text.

Exercise 3. Answer the following questions.

1) What does AIDS mean?
2) What causes AIDS?
3) What are the ways of transmission?
4) Why is such disease so dangerous?
5) Name three possible outcomes for persons infected with HIV.
6) Can doctors treat AIDS?

UNIT FIFTEEN

I	**Speaking**	Respiratory System
II	**Grammar**	Absolute Participial Complex (§105)
III	**Independent Work**	Lungs

I. Speaking: Respiratory System

After careful study of this unit you should be able to:
- *define respiration and describe three phases of respiration;*
- *name all the structures of the respiratory system;*
- *explain the mechanism of pulmonary ventilation;*
- *list the ways of transportation of oxygen and carbon dioxide in the blood;*
- *list five symptoms of abnormal respiration.*

Exercise 1. Learn the words by heart, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
alveolus [æl'viələs]	alveolus	альвеола
bronchiole	bronchiolus	бронхіола
bronchus ['brɒnkəs]	bronchus	бронх
diaphragm ['daiəfræm]	diaphragma	діафрагма
larynx ['læriŋks]	larynx	гортань
lung	pulmo-/pneum-	легеня
mediastinum	mediastinum	середостіння
pharynx ['færiŋks]	pharynx	глотка
pleura ['plʊərə]	pleura	плевра
respiration, breathing	respiratio/pnoē	дихання
trachea [trə'ki:ə]	trachea	трахея
ventilation	ventilatio	вентиляція
nasal cavity	cavum nasi	носова порожнина
inhalation	inhalatio	вдих
exhalation	exhalatio	видих
lobe	lobus	частка
oxygen	oxygenium	кисень
carbon dioxide	carbo dioxinum	вуглекислий газ
bronchial tree	arbor bronchialis	бронхіальне дерево

Exercise 2. Read the following word combinations and translate them, using a dictionary.

To breathe with lungs; pulmonary ventilation; nasal cavities; vocal organ; air movement; gas exchanges; respiratory rates; diffusion of gases.

Exercise 3. Read the text, translate and retell it.

Respiration

Respiration is the process by which oxygen is obtained from the environment and transported to the cells, and carbon dioxide is exchanged from the cells.

Respiration includes three phases:

1. Pulmonary ventilation is normally accomplished by inspiration and expiration.
2. The diffusion of gases includes the passage of oxygen from air sacs into the blood and of carbon dioxide out of the blood.
3. The transport of oxygen and carbon dioxide by the circulating blood.

The respiratory system includes the nasal cavities, the pharynx, the larynx, the trachea, the bronchi and the lungs with their conducting tubes and air sacs. The nasal cavities filter, warm and moisten air, which we inhale. The pharynx (throat) carries air into the respiratory tract and food into the digestive tract. The larynx (voice organ) contains vocal cords. The trachea is the windpipe. The bronchi are the continuations of the trachea, they are two in number; they enter the lungs and then subdivide again and again making the bronchial tree. The smallest subdivisions of the bronchi are bronchioles. The lungs are covered with the membrane called pleura. The pleura not only encloses the lung but also lines the chest walls. Mediastinum is the space for the heart, great blood vessels, esophagus, trachea, and lymph nodes; it is located between the lungs. The lungs consist of lobes, which subdivide into lobules. The tiny air sacs in the lungs are called alveoli.

Physiology of respiration includes inhalation or inspiration (when air comes into the lungs), and exhalation or expiration (when air goes out of the lungs).

The respiratory control centers, located in the medulla and pons of the brain stem, regulate the process of respiration. Respiration is regulated so that the level of oxygen, carbon dioxide, and acid are kept within certain limits. The control centers regulate the rate, depth, and rhythm of respiration.

Exercise 4. Describe three phases of respiration.

Exercise 5. Answer the following questions.

1. What does the term *respiration* mean?
2. What do the respiratory organs consist of?
3. What is each of them characterized by?
4. What processes does the physiology of respiration include?
5. What regulates respiration?
6. Where are the lungs located?

Exercise 6. Describe the structure of the respiratory system. Use Fig. 15–1.

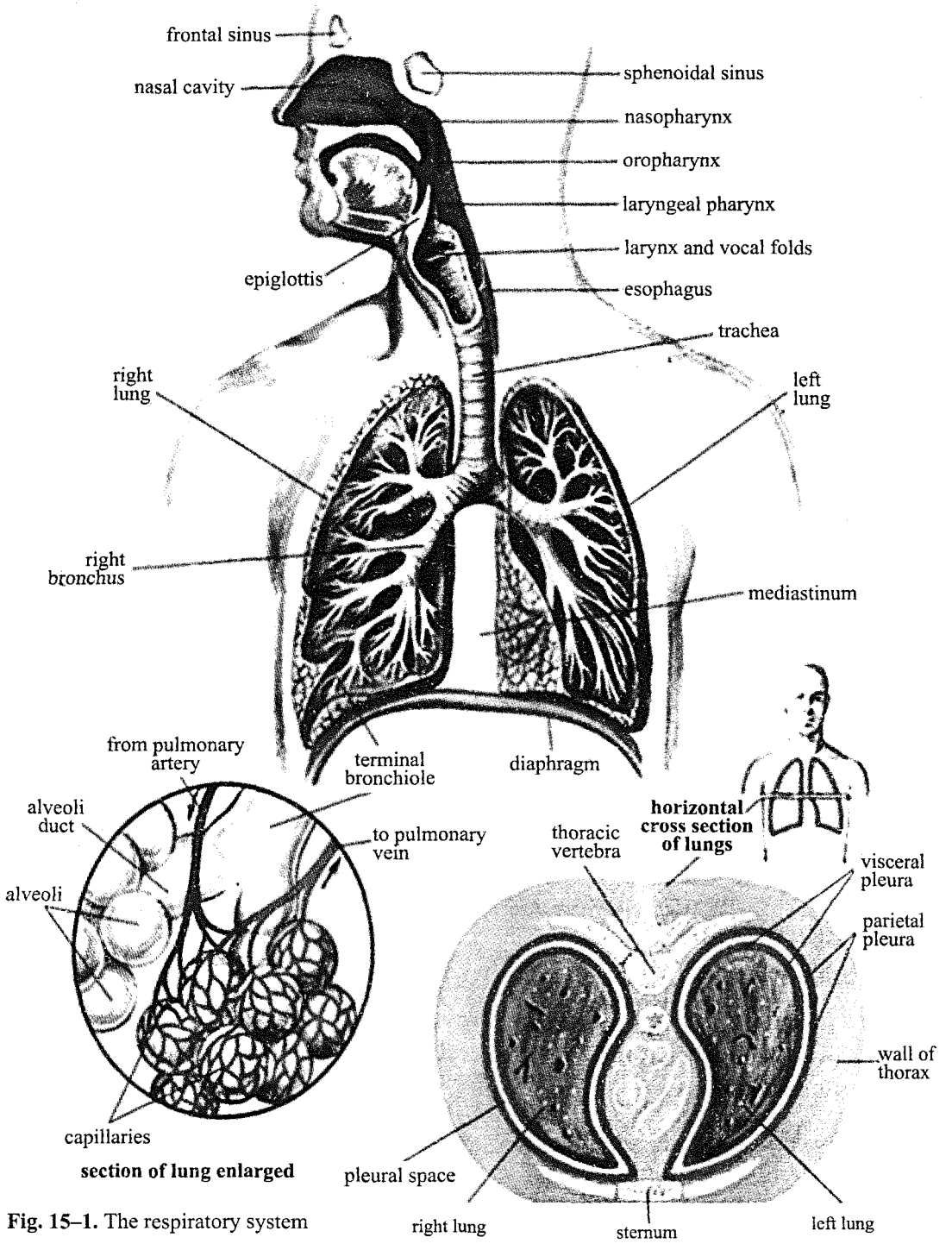


Fig. 15–1. The respiratory system

II. Grammar Exercises

Exercise 1. Read and translate word combinations and sentences with participles I, II in the role of:

a) noun attributes:

a running student, a moving train, working people, a connected line, a seen film, an explained task, given food, painted eyes, a broken glass, a clamped burner, burning sulfur, a dissolved alkali, a diluted acid, a closed chemist's, an organized meeting, a well-made test.

b) Participial Complex as an attribute:

1. Students graduating from our institute work in different parts of Ukraine. 2. The article translated at the lesson is of interest for me. 3. The experiment conducted yesterday gave important results. 4. My friend living in the students' hostel often comes to see me.

c) Participial Complex as an adverbial:

1. While entering the institute I spent much time at the library. 2. While reading scientific texts I usually use a dictionary. 3. When spoken to, he said he was not at all interested in chemistry. 4. When mixed, the substances melted slowly. 5. Being a member of the students' scientific society he took an active part in the research work.

d) a part of the predicative:

1. Medicinal plants are usually stored in a dark place protected from light. 2. During fifty years the institute has developed and brought into use some 60 medicinal preparations. 3. Where is your friend? I don't see him. – He is taking a chemistry test. 4. Such substances may be classified as oily, pungent, acrid, or astringent.

Exercise 2. Read and translate the sentences, choose the necessary participle from the brackets.

1. Complex mixtures of hydrocarbon compounds *(contained, containing)* only carbon and hydrogen occur in very large quantities in nature. 2. In 1820 some amino acids were isolated in crystalline form solutions *(preparing, prepared)* by heating proteins with mineral acids. 3. In the twentieth century the vitamins and elements *(requiring, required)* only in small amounts were discovered. 4. The most important medicines *(discovering, discovered)* in the twentieth century are vitamins made by partial synthesis, irradiation, fermentation and other methods. 5. For the determination of vitamin B_1, the *(testing, tested)* solution was diluted with water. 6. The *(coloring, colored)* matter is used in the production of some perfumes. 7. A perfume is a material *(consisting, consisted)* of one or more volatile constituents.

Exercise 3. Find the Absolute Participial Construction in the sentences. Translate the sentences.

1. The doctor having made the morning round, the nurses began to fulfill his prescriptions. 2. The case being urgent, the doctor gave some directions to the nurse. 3. The patient having fallen asleep, the nurse left the ward. 4. The doctor having performed the operation, the patient was wheeled to his ward. 5. The patient being very weak, the operation was postponed. 6. Influenza is a rapidly spreading disease, people of all ages suffering from it. 7. Our professor delivered two lectures about influenza, the students listening to him attentively. 8. The students helped the nurse to fulfill doctor's prescriptions, the patients being examined with their help.

Exercise 4. Translate the sentences into Ukrainian, pay attention to the participle in the function of Adverbial or Absolute Participial Construction.

1. The work at the hospital having been done, the doctor went home. 2. Having operated this patient, the doctor said the nurse to give him an injection. 3. The course of treatment having been fulfilled, the patient's condition became better. 4. Having made his round the doctor began to fill in the patients' case histories. 5. Having had an acute stage of the disease for several days, they presented an extremely difficult problem. 6. The operation being over, the doctor asked the nurse to use the heart apparatus. 7. My father suffering from pain, I called in a doctor. 8. Examining the patients, the doctor was attentive. 9. The operation having been performed, the patient's condition began to improve. 10. Having examined all the patients, the surgeon began to prepare for the operation.

Exercise 5. Translate the sentences into English, use the Participial Complexes.

1. Я хотіла, щоб він змінився.
2. Лікар оглядав пацієнта, студенти допомагали йому.
3. Кажуть, що він оперує лише в своїй клініці.
4. Після того, як лікар оглянув пацієнтів, медсестри почали робити ін'єкції.
5. Він вірив, що вона повернеться сюди знову.
6. Було помічено, що хворий одужував швидше після прийому тих ліків.

III. Independent Work: Lungs

Exercise 1. Read the text, translate it, make a plan of it.

Lungs

The lungs are the main organs of the respiratory system. There are two lungs in the human body located in the lateral cavities of the chest. The lungs are separated from each other by the mediastinum. The lungs are covered with the pleura. They are conical in shape. Each lung has the base, apex, two borders and three surfaces.

The lung has the apex extending upward 3–4 centimeters (cm) above the level of the first rib.

The base of the lung is located in the convex (випуклий) surface of the diaphragm.

The posterior borders of the lungs are on each side of the spinal column. The anterior border is thin and overlaps (перекривати) the pericardium.

The weight of the lungs varies according to many conditions. In the adult male the weight of the lungs is about 1,350 gr. The right lung is about 15 % heavier than the left one. The vital capacity of the lungs is 3.5–4 liters in the male and it is 3–3.5 liters in the female.

The right lung consisting of three lobes is heavier than the left one because the latter consists only of two lobes. The lower lobe of the left lung is larger than the upper one.

In infants the lungs are of a pale rosy color, but later they become darker.

The structure of the lung consists of an external serous coat, the visceral layer of the pleura, a subserous elastic tissue and the parenchyma or proper substance of the lungs.

Exercise 2. Name the parts of speech of the following words, translate them.

Thoracic, costal, fibrous, pulmonary, widely, pelvis, sacral, construction, facial, daily, dilatation, artificial, connective, respiratory.

Exercise 3. a) Read the doctor's indications to his patient, translate them.

1. Make your analyses of blood and urine. 2. Take an electrocardiogram. 3. Your lungs should be X-rayed. 4. Go to your doctor and check your BP. 5. You need treatment. 6. You will be treated.

b) Translate the following sentences.

1. Ваше серце і легені потрібно перевірити. 2. Зробіть електрокардіограму. 3. Зробіть аналізи крові та сечі. 4. Підійдіть до терапевта і перевірте серце і легені. 5. Вашому другу потрібне лікування. 6. Вас будуть лікувати у пульмонологічному відділенні.

Exercise 4. Read the dialog.

Doctor: I suppose you have pneumonia. I'll put you on a sick leave and prescribe you some treatment.

Patient: What must I do?

Doctor: Listen to me attentively. Take these drugs. This mixture is for your cough. These tablets are for your headache. These drops are for the heart trouble. Take these drugs three times a day.

Patient: Must I stay in bed?

Doctor: Yes, you must. Apply cups and mustard plasters every other day before going to bed. Drink hot tea with raspberry jam. Gargle you throat several times a day. You must make analyses of blood and urine. Your lungs should be X-rayed. Besides it's necessary to take an electrocardiogram.

Patient: Well, doctor. I'll fulfill all your prescriptions.

UNIT SIXTEEN

I	**Speaking**	Respiratory System Disorders
II	**Grammar**	Participial Constructions (Revision) (§§103–105)
III	**Independent Work**	Virus

I. Speaking: Respiratory System Disorders

After careful study of this unit you should be able to:

– name infectious respiratory diseases;

– name allergic and chronic pulmonary diseases;

– explain why smoking is harmful;

– know the equipment for respiratory tract treatment.

Exercise 1. Read and learn the following words, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
auscultation [ˌɔ:skəl'teiʃn]	auscultatio	вислуховування
bronchoscope ['brɒŋkəˌskəʊp]	bronchoscopium	бронхоскоп
mucus ['mju:kəs]	mucilago	слиз
hypoxia [hai'pɒksiə]	hypoxia	кисневе голодування
pulmonary emphysema	emphysema pulmonum	емфізема легенів
pneumonia [nju:'məʊniə]	pneumonia	запалення легенів
bronchial asthma	asthma bronchialis	бронхіальна астма
virus ['vairəs]	virus	вірус
influenza [ˌinflʊ'enzə] (flu, grippe)	influenza	грип
allergic reaction	reactio allergica	алергічна реакція
antiasthmatic agents	remedia antiasthmatica	протиастматичні засоби
smell	odor	запах
cough	tussis	кашель
attack	attacus	напад
spasm ['spæzəm]	spasmus	спазм
failure ['feiljə]	dysfunctio	недостатність; пошкодження; розлад
rhinitis [rai'naitis]	rhinitis	риніт

Exercise 2. Do you remember that inflammation of some organs is denoted with the Greek suffix *-itis*? Form terms using this suffix, translate the formed words.

Larynx, pharynx, bronchus, trachea, pleura.

Exercise 3. You are a therapeutist and receive clinical patients. Talk with a patient who suffers from influenza. Use the phrases below.

- I am going to examine you.
- I will examine you.
- Don't move your shoulders, please.
- Strip to the waist, please.
- Take your clothes off.
- Unbutton your outerwear, please.
- Would you breathe deeply?
- Breathe deeper.
- Hold your breath.
- Breathe in, breathe out, please.
- Turn your back on me, please.
- Cough, please.
- Cover your mouth, when coughing.
- You may dress.
- Is it more painful when you breathe?
- Is it more painful when you cough?
- How long have you been coughing?

- Are you running a temperature?
- Have you ever coughed up blood?
- You must give up smoking.
- You must not catch cold.
- What causes asthma attacks?
- What relieves asthma attacks?
- I want to listen to your lungs.

Exercise 4. Read and translate the text.

Respiratory System Disorders

Sinusitis is the inflammation of the sinuses, located close to the nasal cavities. Chronic sinus infection may cause changes or tumor formation, called polyps (поліпи).

Rhinitis means a cold in the head or running nose. It's an unpleasant symptom of the common cold. The mucosa of the respiratory tract is one of the most important portals of entry for disease-producing organisms. Droplets from one sneeze may be loaded with many billions of disease-producing organisms. Among the infections transmitted through the respiratory passages are the common cold, diphtheria, chickenpox, measles, influenza, pneumonia, and tuberculosis.

Sensitivity to plant pollens, smells, dust, certain foods, and other allergens may lead to hay fever or asthma, or both. Hay fever is characterized by a watery discharge from the eyes and nose. The symptoms of asthma are spasms of the bronchial tube walls.

Chronic obstructive pulmonary disease (COPD) involves emphysema and bronchitis. In chronic bronchitis the linings of the airways are chronically inflamed and produce excessive secretions. Emphysema is characterized by dilation and finally destruction of the alveoli. In the popular press the word emphysema is used to mean COPD.

Lung cancer is a common disease in the person who smokes cigarettes. Smokers suffer from lung cancer ten times as often as nonsmokers.

Pneumothorax is an accumulation of air in the plural space. Blood in it is called hemothorax.

Exercise 5. Write out all names of diseases from the text, find their Greek equivalents.

Exercise 6. Make up 10 questions based on the text.

Exercise 7. Read the information about special equipment for respiratory tract treatment. Translate the text.

The bronchoscope is a flexible fiber optic tubular instrument for inspection of the bronchi and the larger bronchial tubes.

Oxygen therapy is used to sustain life when some condition interferes with adequate respiration; oxygen may be delivered to the patient by mask, catheter or nasal prongs.

A suction apparatus is used for removing mucus or other substances from the respiratory tract.

A tracheostomy tube is used when the pharynx or larynx is obstructed. A small metal or plastic tube is inserted through a cut made in the trachea, and it acts as an artificial airway for ventilation.

Artificial respiration is made when a patient has temporarily lost the capacity to perform the normal motions of respiration.

Control Tests. Respiratory System

1. This science studies the structure and shape of the body and organs.
   A. Anatomy
   B. Physiology
   C. Biology
   D. Botany
   E. Pathology

2. The condition of physical, social and psychological well-being.
   A. Genetics
   B. Disease
   C. Biochemistry
   D. Embryology
   E. Health

3. Disorder of the normal functioning of the human organism.
   A. Happiness
   B. Health
   C. Disease
   D. Fainting
   E. Sadness

4. Structural and functional unit of the living organism is ___.
   A. tissue
   B. cell
   C. organ
   D. system of organs
   E. body

5. ___ take part in respiration.
   A. Kidneys
   B. Bladders
   C. Lungs
   D. Limbs
   E. Muscles

6. The organs of respiration are the ___.
   A. pharynx, gullet and stomach
   B. heart and blood vessels
   C. liver and pancreas
   D. spleen and its blood supply
   E. larynx, bronchi and lungs

7. The larynx is formed by ___.
   A. bones
   B. ligaments
   C. cartilages
   D. membranes
   E. joints

8. According to their structure the bronchi resemble ___.
   A. the trachea
   B. the heart
   C. the liver
   D. the stomach
   E. the larynx

9. Bronchi have many divisions, so they form bronchial ___.
   A. leaf
   B. branch
   C. bush
   D. flower
   E. tree

10. What is the voice organ?
   A. Mouth
   B. Nose
   C. Ears
   D. Larynx
   E. Pharynx

11. With the help of what do we auscultate a person?
   A. Ears

B. Eyes
C. Phonendoscope
D. Stethoscope
E. Special tube

12. Rhinitis is the inflammation of ___.
A. mouth
B. nose
C. liver
D. heart
E. ears

13. To do percussion we use our ___.
A. toes
B. fingers
C. hands
D. arms
E. elbows

14. What organ helps in respiration?
A. Heart
B. Liver
C. Stomach
D. Diaphragm
E. Head

15. What envelops the lung?
A. An envelope
B. A sheet
C. A membrane
D. A pleura
E. A scarf

16. Where are the lungs situated?
A. In the left part
B. In the right part
C. In the abdominal cavity
D. In the oral cavity
E. In the chest

17. What does the lung consist of?
A. Lobes
B. Substances
C. Sacks
D. Boxes
E. Vessels

18. Where do pulmonary veins go?
A. To the neck
B. To the heart
C. To the head
D. To the liver
E. To the lungs

19. What process takes place in the lungs?
A. Exchange of gases
B. Nourishing
C. Production of hormones
D. Cell division
E. Grooving

20. What does the term "respiration" mean?
A. To inhale
B. To exhale
C. To breathe
D. To inspire
E. All answers are right

21. What symptom is the most common in respiratory diseases?
A. Fatigue
B. Headache
C. Heartache
D. Cough
E. Sleep

22. What membrane separates the thoracic cavity from the abdominal cavity?
A. Septum
B. Diaphragm
C. Wall
D. Lungs
E. Stomach

23. How many lobes do the lungs have?
A. 1
B. 2
C. 3
D. 4
E. 5

24. What does "ventilation of lungs" mean?
A. Exchange of gases between air and blood

B. Exchange of carbon dioxide
C. Exchange of substances
D. Exchange of gases in the lungs
E. Removal of gases by blood

25. Where does the process of breathing begin?
A. In the mouth
B. In the eyes
C. In the ears
D. In the nose
E. In the larynx

26. What term means the inflammation of the throat?
A. Pharyngitis
B. Rhinitis
C. Laryngitis
D. Gastritis
E. Sore throat

27. You must use Mucaltine in dry cough. What medicinal plant is it produced from?
A. Althea
B. Valerian
C. Lily of the valley
D. Poppy
E. Rose

28. In what medicinal form is Thermopsis used?
A. Tincture
B. Infusion
C. Ointment
D. Dragee
E. Solution

29. What is bronchioles?
A. Sacks
B. Balloons
C. Endings of bronchi
D. Endings on bronchial tree
E. All answers are right

30. How many bronchi are there in the body?
A. 1
B. 2
C. 3
D. 4
E. 5

31. What is the main structural and functional unit of the lung?
A. Sinus
B. Cosinus
C. Acinus
D. Bronchus
E. Alveolus

32. Pleuritis is ___.
A. cough
B. inflammation
C. examination
D. treatment
E. pain

33. What does the term "pneumothorax" mean?
A. Presence of air in the pleura
B. Disease
C. Pain in the chest
D. Pneumonia
E. Respiratory arrest

34. The largest portion of air which you can inhale and exhale is called ___.
A. vital capacity
B. breathing capacity
C. inspiratory capacity
D. respiratory capacity
E. all answers are right

35. The protective respiratory reflexes are ___.
A. high temperature
B. running nose
C. cilia
D. cough and sneezing
E. dyspnea

36. The most important method for examining respiratory organs.
A. Auscultation
B. Percussions
C. Roentgenography

D. Bronchoscopia
E. Anamnesis

37. This dangerous infectious respiratory disease is a great problem today.
A. Pneumonia
B. Cancer of lungs
C. Influenza
D. Tuberculosis
E. Emphysema

38. A children's disease which is characterized by repeated attacks of coughing is ___.
A. whooping cough
B. diphtheria
C. scarlet fever
D. mumps
E. chicken pox

39. A suspension of colloidal particles in gas is ___.
A. liquid
B. aerosol
C. water
D. inhalator
E. gas

40. What does the term "asphyxia" mean?
A. Дихання
B. Задишка
C. Задуха, ядуха
D. Удар
E. Напад

41. What is the Greek word for "lung"?
A. Pulmo
B. Bronchus
C. Pneumon
D. Cancer
E. Liver

42. What is the normal respiratory rate?
A. 60–70
B. 16–20
C. 120 over 80
D. 100
E. 40

43. What substance can't exchange in cough?
A. Saliva
B. Blood
C. Sputum
D. Urine
E. Foreign bodies

44. What apparatus is used to measure the vital capacity?
A. Bronchoscope
B. Thermometer
C. Barometer
D. Tonometer
E. Spirometer

45. What factor doesn't influence breathing?
A. Experience
B. Running
C. Stress
D. Depression
E. Physical development of the organism

46. What is the best position for the patient with respiratory disease?
A. To sit
B. To stand
C. To lie
D. To walk
E. To recline

47. What system of organs doesn't take part in the process of respiration?
A. Respiratory
B. Cardiovascular
C. Nervous
D. Lymphatic
E. Digestive

48. The system of respiration includes: ___.
A. the nasal cavity, larynx, trachea, bronchi, lungs and pleura
B. only lungs

C. bronchi and lungs with pleura
D. larynx and trachea
E. nose and mouth

49. What does the term "tussis" mean?
A. Pain
B. Cough
C. Fatigue
D. Condition
E. Sneezing

50. What term means "гортань"?
A. Thorax
B. Boxes
C. Larynx
D. Trachea
E. Pharynx

II. Grammar Exercises

Exercise 1. Read and translate the information about the medicine "Ephact".

Ephact

(banish the symptoms of cold & allergy)

For quick & long-lasting relief in
- allergic rhinitis,
- sinusitis,
- common cold,
- nasal congestion,
- vasomotor rhinitis.

Unique microdialysis cell technology
Constant blood levels
Timed-release over 12 hours

Composition

Each capsule contains: phenyl propanolamine hydrochloride B.P. 50 mg (in timed-release form), chlorpheniramine maleate B.P. 8 mg (in timed-release form).

Exercise 2. Name the parts of speech of the following words and translate them.

Respiration, devotion, natural, artificial, important, importance, consideration, measurement, objection, objective, preparation, prevention.

Exercise 3. Define the functions of the participle II in the following sentences. Translate the sentences into Ukrainian.

1. **Graduated** pipettes are **used** to measure different volumes. 2. The method **used** in the experiment was widely **applied** in our laboratory. 3. The **obtained** findings **confirmed** our results. 4. The findings **obtained** in our laboratory **confirmed** those **published** by our students' scientific society. 5. The bark **collected** in spring **preserved** its color. 6. The changes **produced** in the process of heating **caused** rapid decomposition. 7. The substances **compared** are **divided** into several groups.

Exercise 4. Read and translate the sentences with participle complexes in the function of adverbials.

1. Using different methods chemists isolated and identified about six million substances. 2. While establishing impurities it is necessary to use special methods. 3. When boiled with

dilute nitric acid the solution decomposed. 4. When given in greater amounts certain medicines can affect the biological functions of the body. 5. Comparing the present results with those of fifty years ago we see great improvement in the economical production of some vegetable and animal products.

Exercise 5. Fill in the blanks with the verbs in the active or passive form as in the model.

Model: *a) The cerebral cortex ... all movements. (regulate) The cerebral cortex regulates all movements.*

b) The kidneys ... a mass of fat. (surround) The kidneys are surrounded by a mass of fat.

1. The lung ... carbon dioxide and some water. *(excrete)* 2. A great number of chemical substances ... during tissue activity. *(produce)* 3. The blood ... oxygen around the body. *(carry)* 4. All proteins ... into amino acids. *(convert)* 5. Immunoglobulin protein ... in response to the flue virus. *(make)* 6. Vaccines ... for the influenza virus. *(prepare)* 7. Infectious diseases ... an important health problem. *(be)*

Exercise 6. Translate into Ukrainian using participial constructions.

1. Оскільки всі пацієнти лягли спати, медсестра вимкнула світло. 2. Оскільки маленький хлопчик сильно застудився, мати поклала його в ліжко і викликала лікаря. 3. Випадок був терміновий, лікар негайно почав операцію. 4. Оскільки його мати була хвора, він вирішив викликати лікаря. 5. Якщо ці ліки приймати великими дозами, вони можуть викликати алергію.

III. Independent Work: Virus

Exercise 1. Read the text, translate it.

Virus

Much progress has been made to eliminate or diminish the occurrence of many infectious diseases, such as malaria, poliomyelitis, tetanus, diphtheria, pertussis and tuberculosis. Much effort is devoted to infectious diseases of viral nature.

Influenza, for example, is still considered an impotant health and economic problem. Despite the reported reduction in incidence by 2–3 times through the use of preventive vaccines and sera, effective preventive measures and therapeutic agents are still needed.

An explosion of knowledge was recently noted in the molecular biology and mode of replication of the influenza virus. From 1934 when the influenza virus was first isolated, it is the object of intensive research. The treatment of the influenza virus diseases is followed by the constant development of new drugs. Detailed reviews and explanations of clinical techniques were provided by the authorities in the special field.

How does the human body stop the viruses in their massive multiplication? Two ways are mentioned.

An infected cell releases an unknown substance. It affects other cells. They produce a protein, interferon. Interferon is not specifically produced to fight flu. Any virus infection is influenced by it.

The second way is through the body's immune defence system.

Large quantities of vaccine are prepared to inoculate high risk groups in the population. New preventive methods and drugs are devised and improved.

Exercise 2. Answer the following questions.

1. What do doctors do to diminish the occurrence of infectious diseases?
2. When was the influenza virus first isolated?
3. What methods do doctors use to treat virus diseases?
4. What are the ways to stop the multiplication of the influenza virus?
5. What is the role of the body's immune system?

Exercise 3. Translate the following sentences. Note that in English scientific articles sentences begin with it + verb in passive voice and are translated:

it is said – говорять, що;
it is thought – думають, що;
it is known – відомо, що.

1. It is observed that effective measures are needed by doctors to treat viral diseases. 2. It is seen that unknown substances are released by an infected cell. 3. It is stated that immunoglobulin proteins are produced by the body. 4. It is noted that the body produces special immunoglobulins. 5. It is established that the use of preventive vaccines reduced the incidence of infectious disease. 6. It is known that doctors need effective preventive measures to eliminate virus diseases. 7. It is reported that virologists study the mode of replication of the influenza virus. 8. It is believed that a review of the literature helped the author's analysis of the data.

UNIT SEVENTEEN

I	**Speaking**	Digestive System
II	**Grammar**	Gerund (§106)
III	**Independent Work**	Liver

I. SPeaking: Digestive System

After careful study of this unit, you should be able to:

– name the two main functions of the digestive system;
– name the organs of the alimentary tract;
– name the accessory organs;
– explain the role of enzymes in digestion;
– name the digestion products of fats, proteins, and carbohydrates;
– define absorption.

Exercise 1. Read and learn the following words, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
digestion [di'ʤestʃn]	digestiō/pepsis	травлення
oral cavity	cavitas oris/stomato-	ротова порожнина
tooth (teeth)	dens, dent/odont-	зуб (зуби)
tongue [tʌŋ]	lingua	язик
esophagus [i:'sɒfəgəs]	oesophagus	стравохід
stomach [s'tʌmək]	ventriculus/gastro-	шлунок
duodenum [ˌdju:əʊ'di:nəm]	duodenum	дванадцятипала кишка
small intestine	intestinum tenue/entero-	тонка кишка
villus ['viləs]	villus	ворсинка
peritoneum [pəri'tɒniəm]	peritoneum	очеревина
large intestine	intestinum crassum/col(on)	товста кишка
cecum ['si:kəm]	caecum	сліпа кишка
saliva [sə'laivə]	saliva	слина
bile, gall	bilis, fel/chole-	жовч
liver	hepar, hepato-	печінка
gall bladder	vesica biliaris	жовчний міхур
pancreas ['pæŋkri:əs]	pancreas	підшлункова залоза
enzyme ['enzaim]	enzymum	фермент
anus ['einəs]	canalis analis	анус, анальний отвір
rectum	rectum/procto-	пряма кишка

Exercise 2. Learn the following word combinations.
taste receptors – рецептори смаку
mucous membrane – слизова оболонка
gastric juice – шлунковий сік
papillae of the tongue – сосочки язика
alimentary tract – травний канал

Exercise 3. Read and translate the following sentences.

1. The liver consists of small lobules connected together by the connective tissue, different vessels and nerves. 2.That portion of the alimentary tract which forms the large intestine consists of the cecum, colon and rectum. 3. The duodenum is called so because its length measures about the length of twelve fingers. 4. The liver consisting of lobes is covered with a fibrous coat.

Exercise 4. Match the adjectives with the nouns. Translate your word combinations.

Inner, serous, salivary, hard, exact (точний), vital, face, connective, pale, length, palate, coat, capacity, gland, layer.

Exercise 5. Choose the correct answer to the question.

What are the two main functions of the digestive system?

a) The organs of the digestive system break the taken food into the smallest particles and supply body cells with nutrients to provide energy.

b) They are inhalation and exhalation.

c) They are digestion (the process of braking food into small particles to pass them through the walls of cells) and absorption (the transferring of food into the circulation).

Exercise 6. Read the texts, translate them.

Alimentary Tract

The alimentary tract is a musculomembraneous canal about 8.5 m in length. It extends from the oral cavity to the anus. It consists of the mouth, pharynx, esophagus, stomach, small intestine, and large intestine. The liver with gall bladder and pancreas are the large glands of the alimentary tract.

The first division of the alimentary tract is formed by the mouth. Important structures of the mouth are the teeth and the tongue, which is the organ of taste. The soft and hard palates and the salivary glands are also in the oral cavity.

From the mouth food passes through the pharynx to the esophagus and then to the stomach.

The stomach is a dilated portion of the alimentary canal. It is in the upper part of the abdomen under the diaphragm. It measures about 21–25 cm in length, 8–9 cm in its greatest diameter. It has a capacity from 2.14 to 4.28 l.

The small intestine is a thin-walled muscular tube about 6.5 meters long. It is located in the lower and central portions of the abdominal and pelvic cavities. The small intestine is composed of the duodenum, jejunum, and ileum. The large intestine is about 1.5 m long. It is divided into cecum, colon and rectum.

Accessory Organs

The liver is the largest gland in the human body. It is in the right upper part of the abdominal cavity under the diaphragm. So, the liver is on the right side of the abdomen. The weight of the liver is 1500 g.

The gall bladder is a hollow sac lying on the lower surface of the liver.

The pancreas is a long thin gland lying under and behind the stomach on the left side.

Exercise 7. Look at Fig. 17–1. Name all the organs of the digestive system from the oral cavity to the anus.

Exercise 8. Say what organ is spoken about.

a) This organ is the largest gland in the human body. It is in the upper part of the abdominal cavity under the diaphragm in the right part of the abdomen. Its upper surface is convex. This organ consists of small lobules connected together by the connective tissue, different vessels and nerves.

b) This organ is pyriform (грушовидний) in shape. It is a dilated portion of the alimentary canal. It is in the upper part of the abdomen under the diaphragm. The liver is above this organ, and the colon is below it. The pancreas is behind this organ.

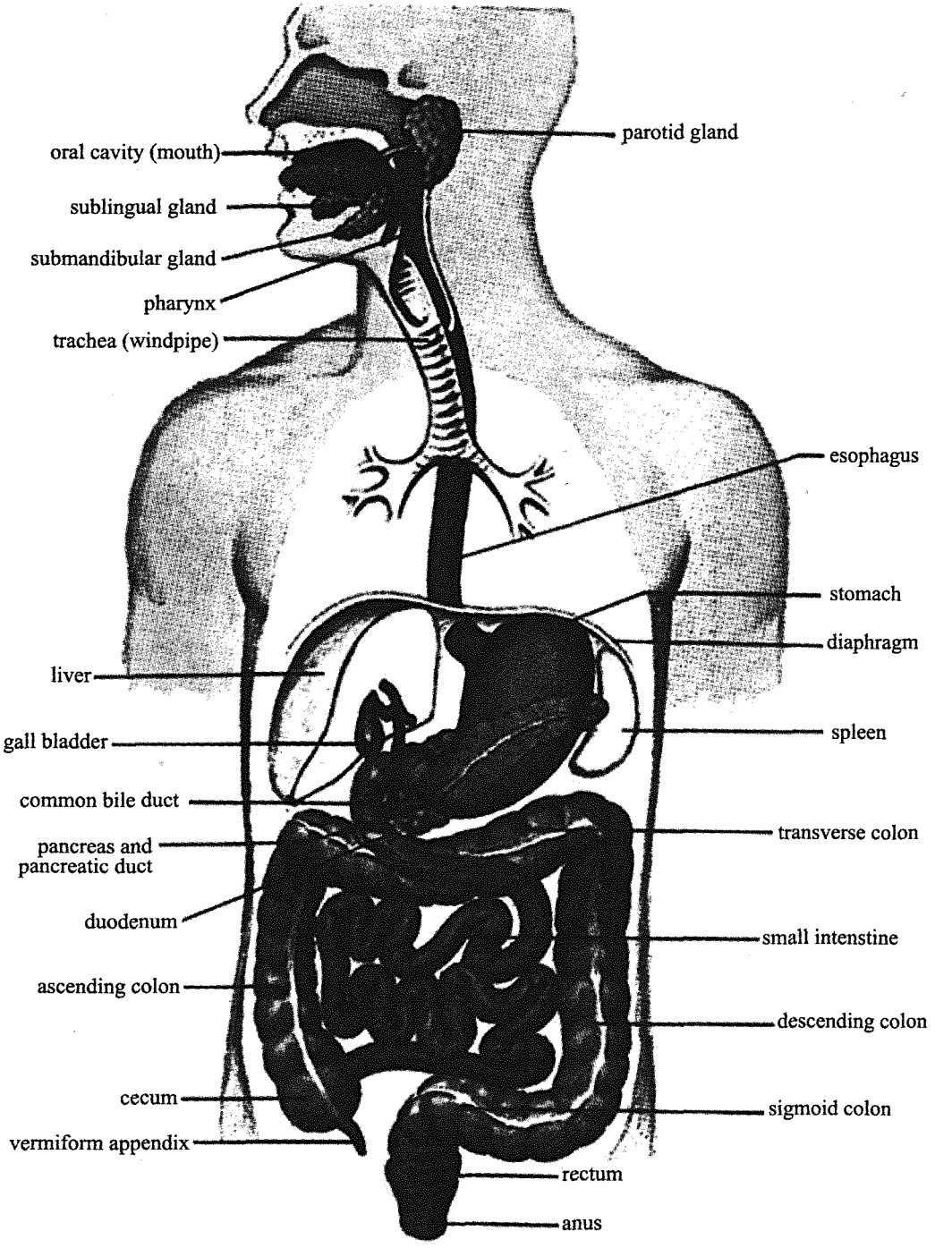


Fig. 17–1. The digestive system

Exercise 9. Read the information about enzymes. Explain the role of enzymes.

Enzymes are proteins that speed the rate of chemical reactions, but at the same time they are not themselves changed or used up in these reactions. An enzyme is a highly specific substance, it acts only in a certain type of reaction, involving a certain type of food molecule. For example, the carbohydrate-digesting enzyme amylase only splits starch into maltose. Another enzyme is required to split maltose into two molecules of glucose (monosaccharide). Other enzymes split fats into their building blocks, glycerol and fatty acids, and still others split proteins into amino acids.

Exercise 10. Look at Table 17–1. Name all products secreted by the organs of the digestive tract and accessory organs. What are their actions?

Table 17–1. Digestive Juices Produced by the Digestive and Accessory Organs

Organ	Main Digestive Juices Secreted	Action
Salivary glands	Salivary amylase	Begins starch digestion
Stomach	Hydrochloric acid (HCl)	Breaks down proteins
	Pepsin	Begins protein digestion
Small intestine	Peptidases	Digest proteins to amino acids
	Lactase, maltase, sucrase	Digest disaccharides to monosaccharides
Pancreas	Sodium bicarbonate	Neutralizes HCl
	Amylase	Digests starch
	Trypsin	Digests proteins to amino acids
	Lipases	Digest fats to fatty acids and glycerol
	Nucleases	Digest nucleic acids
Liver	Bile salts	Emulsify fats

II. Grammar Exercises

Exercise 1. Translate the following sentences, pay attention to the words *one* and *that*.

1. **One** of the lungs has three lobes, the other **one** only two.
2. The brain of man is heavier than **that** of any lower animal.
3. **That** portion of the alimentary tract which forms the large intenstine consists of the cecum, colon and rectum.
4. The valve **that** divides the atrium and the ventricle of the right chamber is called the tricuspid valve.

Exercise 2. Choose the correct participle, translate the sentences.

1. Drugs *(contained, containing)* impurities or some other ingredients are called contaminated.
2. According to official data the first counterfeit prescription drug *(detected, detecting)* in 1950 was a hormone 60 % potent.
3. Narcotics were the first counterfeit synthetic painkillers *(selling, sold)* to hospitals by the New York Mafia.

4. Counterfeit drugs also include drugs *(prescribing, prescribed)* for the treatment of cancer, arthritis, hypertension and other conditions.

5. In developed countries there are many secret drug *(produced, producing)* plants.

6. Illicit plants manufacture out-dated and *(contaminated, contaminating)* medications.

7. At the chemists' all medicines are kept in drug cabinets, on shelves *(protecting, protected)* from light and in the refrigerator.

8. Some boxes have blue labels *(indicated, indicating)* drugs (used, using) for injections.

9. A pharmacist *(taking, taken)* prescriptions and *(delivering, delivered)* drugs is called a dispensing pharmacist.

Exercise 3. Make gerunds from the following verbs, translate them.

***Model:** to make – making.*

To perform, to read, to sit, to get, to enter, to study, to write, to consult, to prescribe.

Exercise 4. Translate these sentences and define the part of speech of the words in bold type.

1. The left atrium and ventricle **connected** by the mitral valve form the left chamber of the heart.
2. The operation **made** on the diseased joints restored the health of the patient.
3. The main inner organs **included** in the thoracic cavity are the heart and lungs.
4. The blood **carried** through the veins from the trunk, head and extremities to the right atrium is called venous.

Exercise 5. Translate the sentences, name the forms of the gerund.

1. He mentioned having read it in the paper.
2. I remember having been asked about it.
3. Instead of being sent to the warehouse the goods were taken to the shop.
4. He has no objection to being sent to the hospital.
5. We were surprised at having been asked about it.

Exercise 6. Translate into Ukrainian.

1. Куріння шкідливе для вашого здоров'я.
2. Читання ввечері шкідливе для очей.
3. Вживання гарячої їжі шкідливе для ваших органів травлення.
4. Виконання ранкових вправ корисне для вашого організму.
5. Дихання свіжим повітрям завжди корисне для здоров'я кожного пацієнта.

III. Independent Work: Liver

Exercise 1. Read the text, retell it.

Liver

The liver is the largest glandular organ of the body. It is located in the upper right part of the abdominal cavity under the dome of diaphragm. The human liver is the same reddish brown

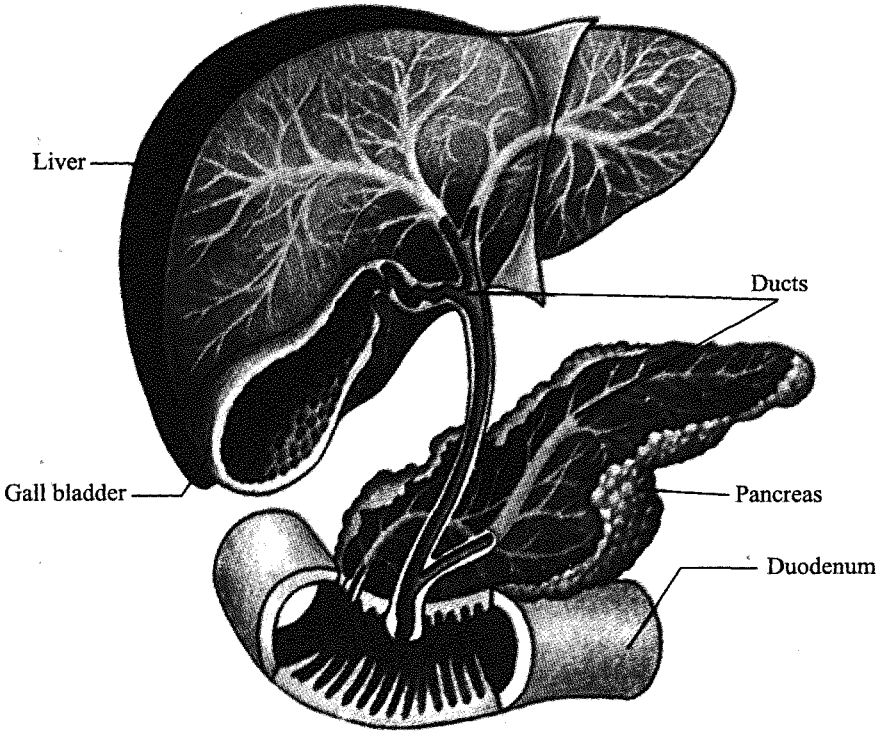


Fig. 17–2. The liver

color as the animal liver seen in the supermarket. The liver has a large right lobe and a smaller left lobe. It has also a double blood supply: the portal vein and the hepatic artery. The hepatic artery carries oxygenated blood to the liver, and the portal vein carries blood that is rich in the end products of digestion (Fig. 17–2). The main functions of the liver can be listed:

1) storage of glucose;
2) formation of blood plasma proteins;
3) synthesis of urea (сечовина, [ˈjʊəriə]);
4) modification of fats;
5) production of bile;
6) destruction of old red blood cells;
7) detoxification of harmful substances;
8) storage of vitamins and iron.

Exercise 2. Make up questions on the text.

Exercise 3. Make up 10 sentences with different forms of the gerund.

UNIT EIGHTEEN

I	**Speaking**	Digestive System Disorders
II	**Grammar**	Gerund Usage (§107)
III	**Independent Work**	How to Go on a Diet?

I. Speaking: Digestive System Disorders

After careful study of this unit you should be able to:
- list all stomach disorders and their symptoms;
- describe what happens during formation of peptic ulcer;
- name the symptoms of stomach cancer;
- list intestinal disorders.

Exercise 1. Learn the following words by heart, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
condition	status, conditio	стан
dyspepsia [dis'pepsiə]	dyspepsia	порушення травлення
gallstones	cholecystolithus	жовчокам'яна хвороба
catarrh [kə'tɑ:]	catarrhus	катар, запалення слизової оболонки
cirrhosis [si'rəʊsis] of the liver	cirrhosis hepatis	цироз печінки
peritonitis [ˌperitə'naitis]	peritonitis	запалення оболонки очеревини, перитоніт
ulcer ['ʌlsə]	ulcus	виразка
gastritis	gastritis	запалення шлунку, гастрит
duodenitis	duodenitis	запалення дванадцятипалої кишки
hepatitis	hepatitis	запалення печінки, гепатит
pancreatitis	pancreatitis	запалення підшлункової залози, панкреатит
colitis	colitis	запалення товстого кишечнику, коліт
appendicitis	appendicitis	запалення червоподібного відростка, апендицит
overdosage	hyperdosis	передозування
diarrhea [ˌdaiə'riə]	diarrhoea	пронос
nausea ['nɔ:sjə]	nausea	нудота
vomiting	vomitus	блювання
flatus ['flætəs]	flatus	скопичення газів
hemorrhoids	haemorrhoides	геморой
hernia ['hɜ:niə]	hernia	грижа, кила

Exercise 2. Read the text.

In the cardiological department one can see patients with heart diseases. They suffer from myocarditis, pericarditis, cardiosclerosis, etc. They have heart troubles, breathlessness, weakness and other symptoms.

In the pulmonological department there are patients with lung diseases. They suffer from pneumonia, bronchitis, asthma, etc. They complain of their bad cough, high temperature, headache.

In the gastroenterological department you can find patients with abdominal diseases. They have gastritis, colitis, ulcer, etc. They feel pain in their stomachs, weakness and sometimes they have vomiting or nausea. Many patients are recovering. Some of them are all right. But some patients are in a bad condition. Doctors pay much attention to the patients. They use different methods of treatment. Many patients are discharged from the hospital every day.

Exercise 3. Answer the following questions.

1. What patients can one see in the cardiological department?
2. What diseases do they suffer from?
3. What lung diseases do patients suffer from?
4. Are many patients recovering?
5. What methods of treatment do doctors use?

Exercise 4. Add missing parts to the word *gastr(o)* using Greek term elements.

Gastr… Gastro…	- surgical removal of all or some part of the stomach - an instrument for visual inspection of the inside of the stomach - a bleeding from the stomach lining - inflammation of the stomach lining - dislocation of the stomach down

(-itis; -ectomy; -ptosis; -rrhagia; -scope)

Exercise 5. You are a gastroenterologist and you're consulting a patient (make up a dialog with your friend). Use the following word combinations:

– to be sick – почувати нудоту (англ.); бути хворим (амер.);
– to be X-rayed – пройти рентген;
– to follow doctor's orders – виконувати вказівки лікаря;
– to keep (stay) in bed – дотримуватися постільного режиму;
– you don't look well – у вас поганий вигляд;
– to be operated upon – бути прооперованим;
– to be feverish – лихоманити;
– I feel faint. – Мені погано.
– My head swings. – У мене крутиться голова.
– Your tongue is rather coated (is not clean). – У вас наліт на язиці.
– Lie down on you back (stomach). – Ляжте на спину (живіт).
– Do you have a good (poor) appetite? – Ви маєте добрий (поганий) апетит?
– Do you have vomiting (heartburn)? – У вас блювання (печія)?
– Is the vomit bloodstrained (with mucus, unfrequent, violent)? – Блювота з кров'ю (зі слизом, нечаста, сильна)?

– Of what color is the vomit? – Якого кольору блювота?

– Is your tongue always pink? – Ваш язик завжди рожевий?

– Is there any pain in your abdomen? – У вас болить живіт?

– Do you suffer from indigestion (gastric or duodenal ulcer)? – У Вас розлад травлення (виразка шлунка чи дванадцятипалої кишки)?

– Is the gastric pain relieved by taking food or soda? – Чим заспокоюєте біль – їжею чи содовою водою?

– The liver, spleen, gall bladder are not palpable. – Печінка, селезінка, жовчний міхур не промацуються.

Exercise 6. Translate the following sentences.

1. Ці пацієнти страждають на виразку шлунка. Вони відчувають біль у шлунку, загальну слабкість. У них буває нудота або блювання. 2. У цього чоловіка часто буває пронос, він відчуває біль у шлунку після їжі. 3. Ця пацієнтка у поганому стані. У неї висока температура, блювання і сильно болить голова. 4. Ці пацієнти одужують. Скоро їх випишуть із лікарні.

Exercise 7. Read, translate the text and make up a plan on it.

Ulcers

An ulcer (peptic ulcer) is a sore or a crater in the lining of the gastrointestinal tract. Ulcers may develop in the stomach (gastric ulcers) or in the upper part of the small intestine (duodenal ulcers). Ulcers develop when something damages the protective lining and allows stomach acid to eat away at it. Factors that increase the risk of ulcers include:

– regular use of aspirin, ibuprofen, and other nonsteroidal anti-inflammatory drugs (NSAIDs), such as indomethacin, naproxen, clinoril, etc.;

– smoking;

– infection with the bacteria called *Helicobacter pylori*.

Symptoms of an ulcer may include a burning or sharp pain in the abdomen between the navel and the end of the breastbone. The pain often occurs between meals and may wake the person during the night. The pain can usually be relieved by eating something or taking an antacid. Ulcers may also cause heartburn, nausea or vomiting, and a bloated or full feeling during or after meals.

Ulcers can cause bleeding in the stomach, which may produce black or tarry bowel movements. Without treatment, ulcers may occasionally cause obstruction or break through (perforate) the stomach lining.

Bleeding and perforation are serious situations that require immediate treatment.

Home Treatment

– Avoid foods that seem to bring on symptoms. It isn't necessary to eliminate any particular food from your diet (although milk and milk products slow healing and should be avoided).

– Eliminate alcohol, caffeine, and spicy foods if they seem to worsen symptoms.

– Try eating smaller, more frequent meals. If it doesn't help, return to a regular diet.

– Stop smoking. People who smoke are twice as likely to develop ulcers as nonsmokers. Smoking also slows healing of ulcers.

– Do not take aspirin or ibuprofen. Try acetaminophen instead.

– Antacids are usually needed to neutralize stomach acid and allow the ulcer to heal. Talk with your doctor about the best dose. You may need frequent large doses to do the job. Nonabsorbable antacids like Maalox, Mylanta, and Gelusil are often best. If you are on a low-salt diet, talk with your doctor or pharmacist before choosing an antacid. Some antacids have a high sodium content.

– Too much stress may slow ulcer healing.

Exercise 8. Here is a list of different disorders of the organs of the digestive system. Read the information, compare English words with their Greek equivalents.

1. Peritonitis is the peritoneal inflammation.
2. Caries, gingivitis and periodonitis are diseases of the oral cavity.
3. Pharyngitis is the inflammation of the pharynx.
4. Gastritis, ulcer and cancer are diseases of the stomach.
5. Enteritis, diarrhea, appendicitis, and cancer are disorders of the intestines.
6. Diseases of the liver are hepatitis, cirrhosis, and cancer.
7. Pancreatitis is the inflammation of the pancreas.
8. Gallstones (or cholelithiasis) and cholecystitis are disorders of the gall bladder.

Exercise 9. Answer the following questions.

1) What symptoms of digestive disorders can you name?
2) What diseases of the stomach do you know?
3) Will you describe peptic ulcer?
4) What factors increase the risk of ulcer?
5) What may ulcer cause?
6) What can you advise to a patient suffering from ulcer?
7) What diseases of the accessory organs do you know?

Control Tests. Digestive System

1. What function does the process of digestion fulfill?
   A. Sexual
   B. Metabolism
   C. Supportive
   D. Protective
   E. Immune

2. What processing does food undergo in the oral cavity?
   A. Mechanical
   B. Mechanical and particularly chemical
   C. Only chemical
   D. Particularly chemical
   E. Particularly mechanical

3. Where does food get in at first?
   A. The large intestine
   B. The small intestine
   C. The oral cavity
   D. The duodenum
   E. The gullet

4. With the help of what is food cut in the mouth?
   A. Teeth
   B. Tongue
   C. Gums
   D. Palate
   E. Cheeks

5. Where does food go from the oral cavity?
A. Esophagus
B. Stomach
C. Gullet
D. Pharynx
E. Larynx

6. With the help of what is food segregated in the stomach?
A. Stomach juice and enzymes
B. Saliva and stomach juice
C. Enzymes and gall
D. Stomach juice and water
E. Water and enzymes

7. What is there between the pharynx and stomach in the digestive tract?
A. Liver
B. Duodenum
C. Heart
D. Ribs
E. Gullet

8. Where are fats split?
A. In the stomach
B. In the rectum
C. In the anal canal
D. In the gall bladder
E. In the duodenum

9. What organ also takes part in digestion?
A. Kidney
B. Heart
C. Brain
D. Liver
E. Lung

10. What part of the digestive tract is there between the gullet and duodenum?
A. Stomach
B. Large intestine
C. Small intestine
D. Pancreas
E. Liver

11. What kind of juice takes part in digestion?
A. Fruit
B. Gastric
C. Orange
D. Apple
E. Sweet

12. Through it fecal masses go out the body.
A. Stomach
B. Lungs
C. Rectum
D. Anus
E. Liver

13. What does *gastritis* mean?
A. Ulcer of the stomach
B. Cancer of the stomach
C. Catarrh of the stomach
D. Spasm of the stomach
E. Emptying of the stomach

14. Through it food gets into the stomach.
A. Liver
B. Esophagus
C. Duodenum
D. Rectum
E. Pancreas

15. What does *dyspepsia* mean?
A. Narcosis
B. Fracture
C. Pregnancy
D. Difficulty in digestion
E. Lack of vitamins

16. What substances are absorbed in the large intestine?
A. Sugar and salts
B. Gall and lymph
C. Water and salts
D. Blood and water
E. Water and sugar

17. What is a part of large intestine?
A. Duodenum

B. Liver
C. Kidney
D. Colon
E. Bladder

18. It doesn't belong to the digestive system.
A. Heart
B. Gullet
C. Liver
D. Pancreas
E. Stomach

19. What is the synonym to the word "esophagus"?
A. Bronchus
B. Ventricle
C. Gullet
D. Gall bladder
E. Bladder

20. What organ of digestion can we palpate?
A. Duodenum
B. Liver
C. Small intestine
D. Large intestine
E. Pharynx

21. What does the liver secrete?
A. Blood
B. Hormones
C. Cells
D. Bile
E. Urine

22. Where does food go after the duodenum?
A. Into the stomach
B. Into the small intestine
C. Into the blood vessels
D. Into the rectum
E. Into the gullet

23. Where are fecal masses formed?
A. In the kidneys
B. In the bladder
C. In the appendix
D. In the rectum
E. In the large intestine

24. What is the role of teeth in the oral cavity?
A. To chew food
B. To drink water
C. To speak english
D. To keep food in the mouth
E. To do exercises

25. What is the function of digestion?
A. Nutrition
B. Exchange of substances
C. Immunity
D. Defense
E. Supporting

26. What disease doesn't belong to gastric diseases?
A. Ulcer
B. Gastritis
C. Catarrh
D. Gallstones
E. Cancer of the stomach

27. Mouth, pharynx, gullet, ___, duodenum, small intestine, large intestine, rectum and anal canal form the system of digestion.
a. liver
b. bladder
c. kidneys
d. lungs
e. stomach

28. What substances help to segregate food in the stomach?
A. Salts
B. Acids
C. Enzymes
D. Urea
E. Hormones

29. What doctor treats diseases of the digestive system?
A. Urologist
B. Neurologist
C. Stomatologist
D. Gastroenterologist
E. Cardiologist

30. If you want to eat, you are ___.
A. hungry
B. sad
C. thirsty
D. happy
E. sick

31. What is the English for the Latin term "oesophagus"?
A. Heart
B. Trunk
C. Chest
D. Abdomen
E. Gullet

32. The roof in the mouth is ____.
A. palace
B. house
C. palate
D. ceiling
E. tongue

33. The largest glandular organ which secretes bile.
A. Tonsil
B. Pancreas
C. Thyroid
D. Liver
E. Thymus

34. Removal of the gall bladder.
A. Cholecystectomy
B. Gastrectomy
C. Esophagotomy
D. Pharyngotomy
E. Enterotomy

35. Examination of the stomach and duodenum with the help of an instrument.
A. Rectoromanoscopia
B. Gastroenteroscopia
C. Bronchoscopia
D. Ophthalmoscopia
E. Nephroscopia

36. What is the English for "виразка"?
A. Fetus
B. Ulcer
C. Wound
D. Abscess
E. Necrosis

37. Inflammation of the large intestine.
A. Cystitis
B. Enteritis
C. Colitis
D. Proctitis
E. Pharyngitis

38. Where is the stomach situated?
A. In the thoracic cavity
B. In the head
C. On the left side
D. On the right side
E. In the abdominal cavity

39. What is the organ of taste?
A. Mouth
B. Nose
C. Skin
D. Tongue
E. Eye

40. How many teeth does an adult person have?
A. 20
B. 28
C. 32
D. 36
E. 24

41. What shape is the stomach?
A. Pyriform

B. Ball
C. Balloon
D. Tube
E. Tree

42. The inflammation of the mucous membrane of the stomach.
A. Duodenitis
B. Colitis
C. Enteritis
D. Hepatitis
E. Gastritis

43. The inflammation of the liver.
A. Cholecystitis
B. Hepatitis
C. Duodenitis
D. Pharyngitis
E. Rhinitis

44. What does the act of defecation mean?
A. Evacuation
B. Supply
C. Absorption
D. Segregation
E. Exhalation

45. The tiny hair in the small intestine is called a ___.
A. bacillus
B. egg
C. horn
D. villus
E. stick

46. The process of filling cells with energy.
A. Nutrition
B. Micturition
C. Digestion
D. Production
E. Excration

47. What does exchange of substances in the organism mean?
A. Catabolism
B. Botulism
C. Metabolism
D. Assimilation
E. Dissimilation

48. The lack of vitamin D causes ___ in babies.
A. scurvy
B. flu
C. pneumonia
D. rachitis
E. mumps

49. The lack of vitamin C causes this disease.
A. scurvy
B. flu
C. influenza
D. pneumonia
E. dysentery

50. Special food for patients.
A. Vegetables
B. Fruit
C. Meat
D. Fish
E. Diet

II. Grammar Exercises

Exercise 1. State the part of speech of the following words and translate them.

a) Anatomist, biologist, clinician, hygienist, physician, gynecologist, pediatrician, psychiatrist, naturalist.

b) Administration, investigation, contribution, foundation, addition, suggestion, development, improvement.

c) Clinical, educational, scientific, centrifugal, remarkable, inorganic, valuable, topographical.

Exercise 2. Translate the following sentences. State the form of the gerund and its function in the sentences.

1. This method is good in treating a number of diseases.
2. The doctor never uses the needle for puncturing the muscular tissue.
3. The doctors began making a wider use of this treatment.
4. By using needle therapy our doctors help patients to get rid of many diseases.
5. Many patients are afraid of being treated by the stomatologist.
6. We object to her being given so much work.
7. Preparing patients for the operation is the task of a nurse.
8. We heard of her having been given interesting work.

Exercise 3. Compare the use of the nouns and gerunds.

1. a) The discussion of the report lasted two hours.
   b) They finished discussing the report at two o'clock.
2. a) The unexpected engagement of a new actor surprised everybody.
   b) Mr. Dove began engaging the new actor quite unexpectedly.
3. a) The visit to a doctor was unpleasant.
   b) Visiting a doctor he felt unpleasant.

Exercise 4. Complete the sentences using gerunds.

1) Do you prefer ...?
2) Did you enjoy ...?
3) I don't mind ...
4) Excuse me for ...
5) He is busy ...
6) I remember ...
7) I think it depends on ...
8) Are you tired of ...?
9) He had no chance of ...
10)We made a decision after ...

III. Independent Work: How to Go on a Diet?

Exercise 1. Read an unfinished story and continue it (you can use the ideas given below).

How to Go on a Diet?

Last summer my doctor told me to go on a slimming diet, which, he said, would make me lose twenty pounds in a month. For breakfast, I was allowed to drink coffee or tea and nothing else. For lunch, grilled meat, no salt; a hundred grams of vegetables, no salt; fifty grams of cheese or yoghurt, a choice of an orange or an apple. The same for dinner. I wasn't allowed to drink anything with meals.

The first day was fine, though I was so hungry that I went to bed at eight. The next morning my wife said an egg with breakfast wouldn't hurt me. So I ate an egg since she is wiser than I am in these matters.

At noon I lunched with a friend who said, "Meat is more fattening than potatoes. My doctor lets me eat all the potatoes I want to, without butter, of course". So I had potatoes with my meat. In the evening I dined with a Frenchman. He was shocked to think that I wouldn't drink wine with my dinner. So I had half a bottle of Burgundy with my dinner. I went on dieting taking my meals with different people. Each one had his own idea about dieting and I was willing to listen to everybody.

Ideas

Describe my meals with my lawyer, an American visitor, my colleague, my mother-in-law, my hairdresser. This is what they say: one teaspoon of cream is three times as fattening as one teaspoon of sugar; it is foolish to eat without salt; the best way to lose weight is to eat nothing but spaghetti; fish is not fattening; scrambled eggs in the morning aren't as fattening as in the evening; if you eat a lot of chocolate before dinner it will take away your appetite.

Exercise 2. Answer the questions.

1. Do you think I liked to take my meals alone or with friends? 2. Do you think I have put on or lost weight? 3. What do you think my doctor said? 4. Why is it not wise to listen to everybody?

UNIT NINETEEN

I	**Speaking**	Nervous System (Part I)
II	**Grammar**	Gerundial Complexes (§108)
III	**Independent Work**	Role of Nervous System

I. Speaking: Nervous System (Part I)

After careful study of this unit you should be able to:

– describe the organization of the nervous system according to the structure and function;

– explain the transmission of a nerve impulse;

– define synapse, and describe the role of neurotransmitters in the synapse;

– differentiate types of nerves.

Exercise 1. Pronounce and learn the following words, pay attention to their equivalents.

English	Latin/Greek	Ukrainian
neuron ['njuərən]	neuron	нейрон
nerve [nɜ:v]	nervus/neuro-	нерв
nerve fibers	neurofibrae	нервові волокна
nerve endings	terminationes nervorum	нервові закінчення
synapse ['sainæps]	synapsis	синапс

English	Latin/Greek	Ukrainian
afferent nerve fibers	neurofibrae afferentes	чутливі (аферентні) нервові волокна
efferent nerve fibers	neurofibrae efferentes	рухові (еферентні) нервові волокна
axon [ˈæksɒn]	axon	аксон
ganglion [ˈgæŋliən]	ganglion	ганглій, вузол
impulse [ˈimpʌls]	impulsus	імпульс
neurotransmitter		нейротрансміттер, нейромедіатор
plexus [ˈpleksəs]	plexus	сплетіння
receptor [reˈseptə]	receptor	рецептор
dendrites [ˈdendraits]	dendriti	дендрити
myelin [ˈmaiəlin]	myelinus	мієлін
neurilemma [ˌnju:əriˈlemə]		неврилема
brain [brein]	cerebrum/encephalon	головний мозок
spinal cord [ˈspainlˈkɔ:d]	medulla spinalis	спинний мозок

Exercise 2. Read and learn the following word combinations and their meaning.

spinal cord – спинний мозок (стрижень)

meninx [ˈmeniŋks] (pl. meninges [meˈninʤi:z]) – оболонка мозку

myelin sheath [ˈʃi:ð] мієлінова оболонка

neurilemma – шваннівська оболонка (оболонка нервових волокон)

synapse – синапс (спеціалізовані утвори функціонального зв'язку нейронів один з одним або з клітиною, яку вони іннервують; служать для сприйняття і передачі нервових імпульсів)

stimulus [ˈstimjʊləs] подразник

white matter – біла речовина (шляхи і канатики)

gray matter – сіра речовина (ядра і стовпи)

sensory neurons – сенсорні нейрони (чутливі)

motor neurons – моторні нейрони (рухові)

Exercise 3. Read and translate the text.

Nervous System

(Part I)

None of the body systems is functioning alone. The body systems work together as one unit and the nervous system serves as a chief coordinating center. The nervous system has been compared to a telephone exchange, in that the brain and the spinal cord act as switching centers, and the nerve trunks act as cables for carrying messages to and from these centers.

The nervous system structurally is divided into the central nervous system (CNS), which includes the brain, the spinal cord, and the peripheral nervous system (PNS), which includes all of the cranial and spinal nerves (Fig. 19–1).

Functional divisions of the nervous system include the somatic (voluntary) nervous system, which supplies skeletal muscles, and the visceral (involuntary) nervous system, which supplies smooth muscles, cardiac muscles, glands.

The nerve cell is called a neuron (Fig. 19–2). It consists of a cell body with a nucleus and nerve fibers, which are thread-like projections of the cytoplasm. Nerve fibers are of two kinds: dendrites, which conduct impulses to the cell body, and axons, which conduct impulses away from the cell body.

The job of neurons of the peripheral nervous system is to relay information to or from the central nervous system. Neurons that conduct impulses to the CNS are sensory, or afferent, neurons. Those cells that carry impulses from the CNS out to muscles and glands are motor, or efferent, neurons. The organ activated by the motor neuron is the effector.

Nerve impulse is electric current that spreads along the nerve fiber.

Synapse is the junction between neurons where a nerve impulse is transmitted from one neuron to the next.

A nerve is a bundle of nerve fibers located outside the CNS. Bundles of nerve fibers within the CNS are tracts.

The nerves are sensory (afferent), they contain only fibers that carry impulses toward the CNS (from the receptor); motor (efferent), they contain only fibers that carry impulses away from the CNS (from the receptor); mixed, they contain both motor and sensory fibers.

Reflex is a simple, rapid, automatic response involving few neurons.

Exercise 4. Make up a plan of the text.

Exercise 5. Define the following terms.

Neuron, nerves, tracts, reflex, synapse, axon, dendrite, effector.

Exercise 6. Find English equivalents in the text.

Подають імпульси до клітини тіла, електрохвиля, з'єднання між нейронами, як єдине ціле, центральна нервова система, головний мозок, вольова нервова система, нервові волокна і пучки, кабель для передачі повідомлень, робота нейронів, що несуть імпульси до ЦНС, від рецепторів.

Exercise 7. Answer the following questions.

1) What is the main function of the nervous system?
2) What are two main structural divisions of the nervous system?
3) What is the nerve impulse?
4) What is synapse?
5) Do axons or dendrites conduct impulses away from the cell body?

Exercise 8. Translate into Ukrainian.

1. Scientists consider that there are up to 12 billion nerve cells which are performing their function of coordination of human activities all over the body.

2. Thanks to the nervous system which controls the activities of the body we can see, think, speak, hear, touch, feel, etc.

3. External and internal receptors receive and transmit nervous impulses to the nerve cells and then to the spinal cord and brain.

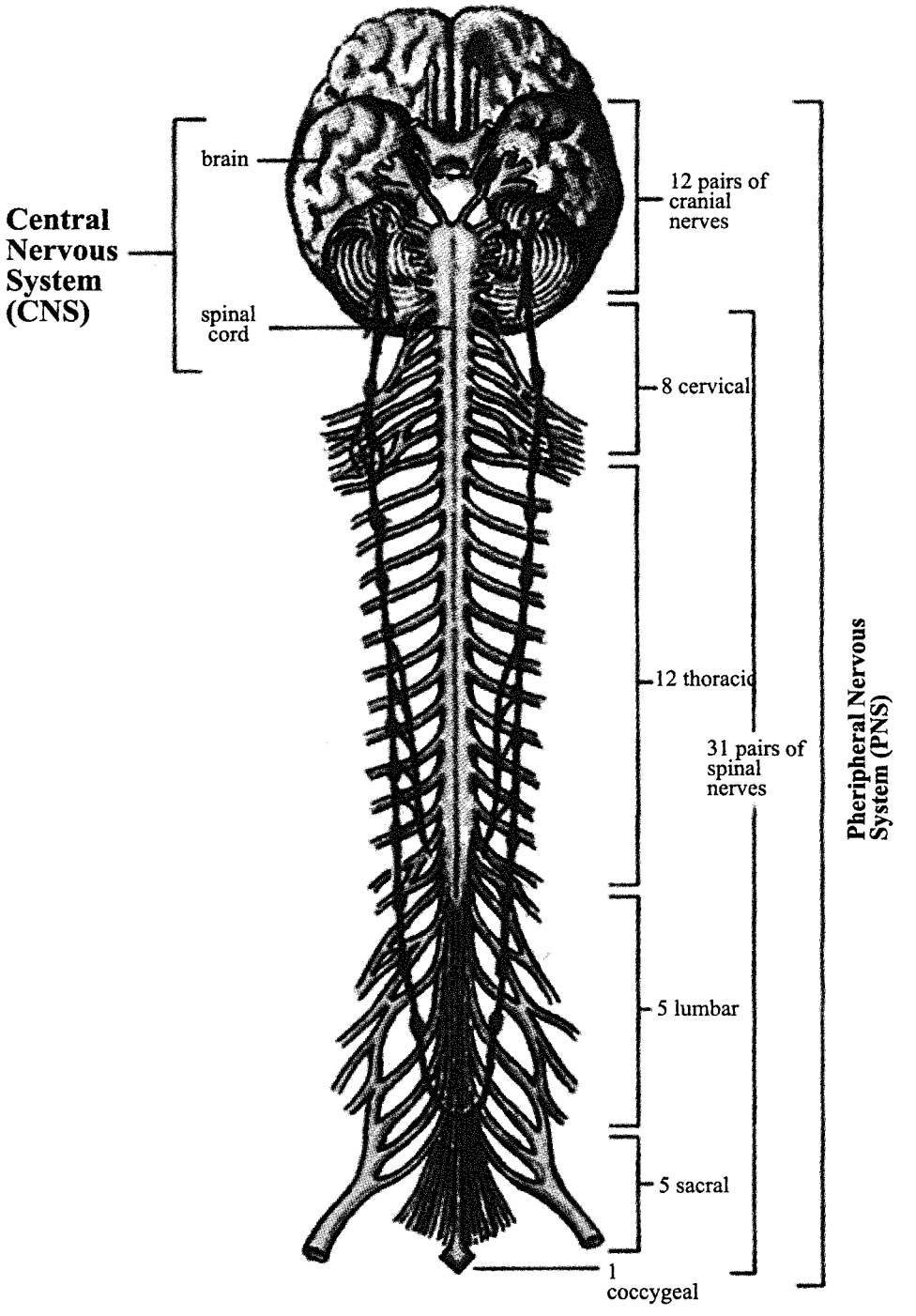


Fig. 19–1. The central nervous system

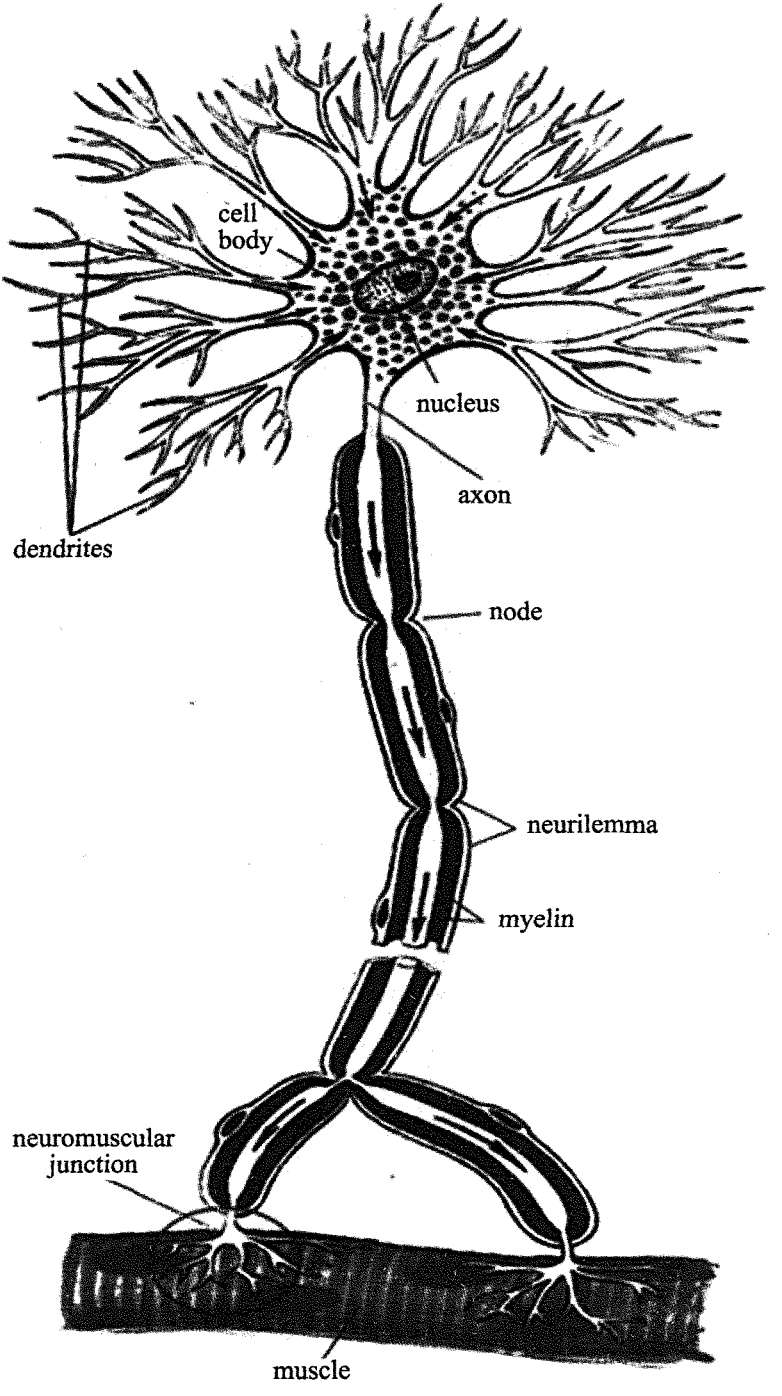


Fig. 19–2. The nerve cell (neuron)

II. Grammar Exercises

Exercise 1. Make up all possible questions to the sentence.

The nervous impulse wave passes the dendrites and reaches the cell body and cell nucleus.

Exercise 2. State the parts of speech of the following words.

stimulate – stimulus – stimulant – stimulation
neurology – neurologist – neurological
compare – comparative – comparison – comparable
normal – abnormal – normalize – normally
structure – structural
react – reaction – reactional – reactive

Exercise 3. Translate the following sentences. Point the gerund and its function in the sentence.

1. Be slow in choosing a friend, slower in changing him.
2. You can't make an omelet without breaking eggs.
3. Doing is better than saying.
4. Saying and doing are two different things.
5. It's no use crying over spilt milk.
6. The doctor never uses the needle for puncturing or injuring the muscular tissue.
7. I was afraid of being here in such hour.
8. The doctors began using this method.
9. He started examining the patients at 8 o'clock.
10. Sterilizing the instruments, preparing the patient for the operation took me about an hour.

Exercise 4. State the -ing form in the following word combinations. Gerund with noun and participle with noun express different meanings.

Model: *an operating room = a room for operations;*
операційна кімната = кімната для операцій.

An operating man, a reading room, a sleeping baby, a waiting hall, an examining surgeon, a reading device, a healing system.

Exercise 5. Translate the sentences with gerundial complexes.

1. A thermometer is an instrument for measuring temperature.
2. Our being tired is easy to explain.
3. We heard of his being ill with pneumonia.
4. I was told that he was operated on without having been anesthetized.
5. After having gathered a complete clinical history, he began to examine the patient.

Exercise 6. Complete the sentences translating the phrases into English, using the gerundial complex.

1. She never thought of *(що вона стане хірургом).*
2. The doctor insisted on *(щоб він прийняв ці ліки).*
3. Who is responsible for *(його повернення додому вчасно)?*

4. He succeeded in *(що вона склала всі іспити).*

5. The assistant showed the students the simplest methods of *(як перев'язати рану на коліні).*

III. Independent Work: Role of Nervous System

Exercise 1. Read and translate the text.

Role of Nervous System

The nervous system regulates the activities of different organs and of the entire organism. Muscular contractions, glandular secretion, heat action, metabolism and many other processes continuously operating in the organism are controlled by the nervous system.

The nervous system links the various organs and systems, coordinates all their activities and ensures the integrity of the organism.

The work of each organ or system of organs may be affected by various conditions. A change in function of one organ or system of organs leads to changes in the function of other organs and systems. For example, during physical work involving intensive muscular contraction the metabolism in muscles increases, which consequently increases the requirement in nutrients and oxygen. A reflex response causes the heart and lungs to work more intensively, with the result that the flow of the blood to the muscles increases. At the same time heat production and heat loss increase, the excretory organs work harder.

The unity of the organism and its external environment is affected through the nervous system. All the outside stimuli are perceived by the nervous system through the sense organs. In response to the stimuli the functions of the various organs change and the organism adapts itself to its surroundings or, **as I. Pavlov put it**[1], the organism is equilibrated with the external environment. This equilibrium forms the basis of the organism's vital activities. Thus in response to ingestion of food the activity of the digestive glands increases and is adapted to the character of the ingested food. A rise in temperature of the surrounding air causes an increased flow of blood to the skin and greater perspiration, which prevents overheating of the organism.

It should be remembered that unlike animals, man can himself considerably change his external environment.

Man's brain is the material basis of thinking and speech.

I. Pavlov demonstrated that man's so-called psychic activity is based on physiological processes operating in the cerebral cortex.

Note:

[1] as I. Pavlov put it – як сформулював І. Павлов

Exercise 2. Make up a plan of the text.

Exercise 3. Find sentences about the nervous system.

Exercise 4. Tell about the unity of the human body and the external environment.

Exercise 5. Speak about the role of the nervous system.

UNIT TWENTY

I	**Speaking**	Nervous System (Part II)
II	**Grammar**	Translation of Gerundial Complexes
III	**Independent Work**	This Is Incredibly Lovely

I. Speaking: Nervous System (Part II)

After careful study of this unit you should be able to:
– explain the location, structure and functions of the spinal cord;
– describe and name the spinal nerves and three of their main plexuses;
– describe the main parts of a reflex act;
– compare the location and functions of the two parts of the autonomic nervous system;
– list disorders of the nervous system.

Exercise 1. Read and learn the following English words and their equivalents.

English	Latin/Greek	Ukrainian
autonomic [ˌɔ:tə'nɒmik]	autonomicus	автономний
central	centralis	центральний
peripheral [pə'rifərəl]	periphericus	периферичний
sympathetic	sympatheticus	симпатичний
parasympathetic	parasympatheticus	парасимпатичний
spinal cord	medulla spinalis/myelo-	спинний мозок
arc [ɑ:k]	arcus	дуга
reflex	reflexus	рефлекс
neuritis [ˌnjʊ'raitis]	neuritis	враження периферичного нерва, неврит
herpes zoster	herpes zoster	оперізуючий лишай
poliomyelitis	poliomyelitis	поліомієліт (хвороба Гейне– Медіна)
crisis ['kraisis]	crisis	криза
posterior [pɒs'tiəriə]	posterior	задній
anterior [æn'tiəriə]	anterior	передній
paraplegia [ˌpærə'pli:ʤə]	paraplegia	повна відсутність довільних рухів, параплегія

Exercise 2. Read and translate the texts, get ready to answer the questions about:
– the location of the spinal cord;
– the structure of the spinal cord;
– the functions of the spinal cord;
– the reflex arc;
– the disorders of the spinal cord;
– the location of the spinal nerves;

- the branches of the spinal nerves;
- the disorders of the spinal nerves;
- the parts of the autonomic nervous system;
- the functions of the autonomic nervous system.

Text 1. *Spinal Cord*

The spinal cord occupies the spinal canal, but not all of it in the lower part. In adult the cord ends in the region just below the area to which the last rib attaches (between the first and the second lumbar vertebrae).

The spinal cord consists of gray matter (nerve cell bodies) and a larger area surrounding this gray part that consists of white matter (nerve fibers). The structure of the spinal cord is shown in Fig. 20–1.

You can see that the gray matter has the form of the letter **H** or a butterfly (метелика). The functions of the spinal cord may be divided into three categories:

-- reflex activities;
-- conduction of sensory impulses (to the brain);
– conduction of motor impulses (from the brain).

All the nervous activities are taking place through the reflex arcs. The reflex arc consists of five components: the receptor, the afferent pathway, the nervous center, the efferent pathway and the effector.

The diseases of the spinal cord are: poliomyelitis (an infectious disease, which commonly occurs in children; polio virus enters the body through the nose and throat; the virus destroys the motor nerve cells in the spinal cord; the preventive medicine is the oral Sabin vaccine), paraplegia (the loss of sensation and motion in the lower part of the body), tumors that grow from within the cord or that compress the cord from outside.

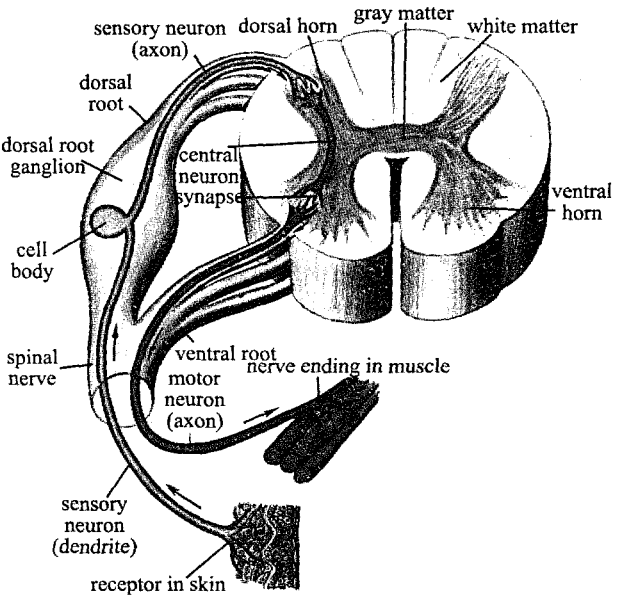


Fig. 20–1. The spinal cord

Text 2. *Spinal Nerves*

Look at Fig. 19–1. There are 31 pairs of spinal nerves, each pair is numbered according to the level of the spinal cord from which it arises. Each spinal nerve has small posterior divisions and rather large anterior divisions.

The larger anterior branches form networks called plexuses, which innervate (іннервують) different parts of the body.

The three main plexuses are described as follows:

1. The cervical plexus supplies motor impulses to the muscles of the neck and receives sensory impulses from the neck and the back of the head. The phrenic nerve, which activates the diaphragm, arises from this plexus.

2. The brachial ['brækiəl] plexus sends numerous branches to the shoulder, arm, forearm, wrist and hand. The radial nerve emerges from the brachial plexus.

3. The lumbosacral [ˌlʌmbə'seikrəl] plexus supplies nerves to the lower extremities. The largest of these branches is the sciatic [sai'ætik] nerve, which leaves the dorsal part of the pelvis, passes the glutaeus maximus muscle and then to the thigh, and lower leg, and foot.

The disorders of the spinal nerves are:

– neuritis (inflammation of a nerve);

– sciatica [sai'æti:kə] (kind of neuritis characterized by severe pain along the sciatic nerve);

– herpes zoster (known as shingles) is characterized by numerous blisters along the course of certain nerves (the cause is the chickenpox virus).

Text 3. *Autonomic Nervous System*

Look at Fig. 20–2. The autonomic nervous system is the motor (efferent) division of the visceral (involuntary) nervous system. It has many ganglia that serve as relay stations. In these ganglia each message is transferred at a synapse from the first neuron to the second one from there to the muscle or gland cell. This differs from the voluntary (somatic) nervous system, in which each motor nerve fiber extends all the way from the spinal cord to the skeletal muscle with no intervening synapse.

The autonomic nervous system has sympathetic pathways and parasympathetic pathways.

The sympathetic pathways begin in the spinal cord with cell bodies in the thoracolumbar area and then their nerve fibers extend to ganglia where they form a synapse with a second set of neurons, whose fibers extend to the glands and involuntary muscle tissues. These second neurons act on the effectors by releasing the neurotransmitter epinephrine (adrenaline), so the sympathetic system can also be called adrenergic [ædri'nɜ:ʤik].

The parasympathetic pathways begin in the craniosacral areas, with fibers arising from cell bodies of midbrain, medulla, and sacral part of the spinal cord, and stimulate the visceral tissues. The neurons of this part of the nervous system release the neurotransmitter acetylcholine, so it is called cholinergic [kɒli'nɜ:ʤik].

The autonomic nervous system regulates the action of the glands, the smooth muscles of hollow organs, and the heart. The sympathetic part tends to act as an accelerator for the organs needed to meet a stressful situation.

The parasympathetic part normally acts as a balance for the sympathetic system once a crisis has passed.

The autonomic nervous system, together with the endocrine system, regulates our responses to stress.

Exercise 3. Write out all terms of Greek origin form Texts 1, 2, 3.

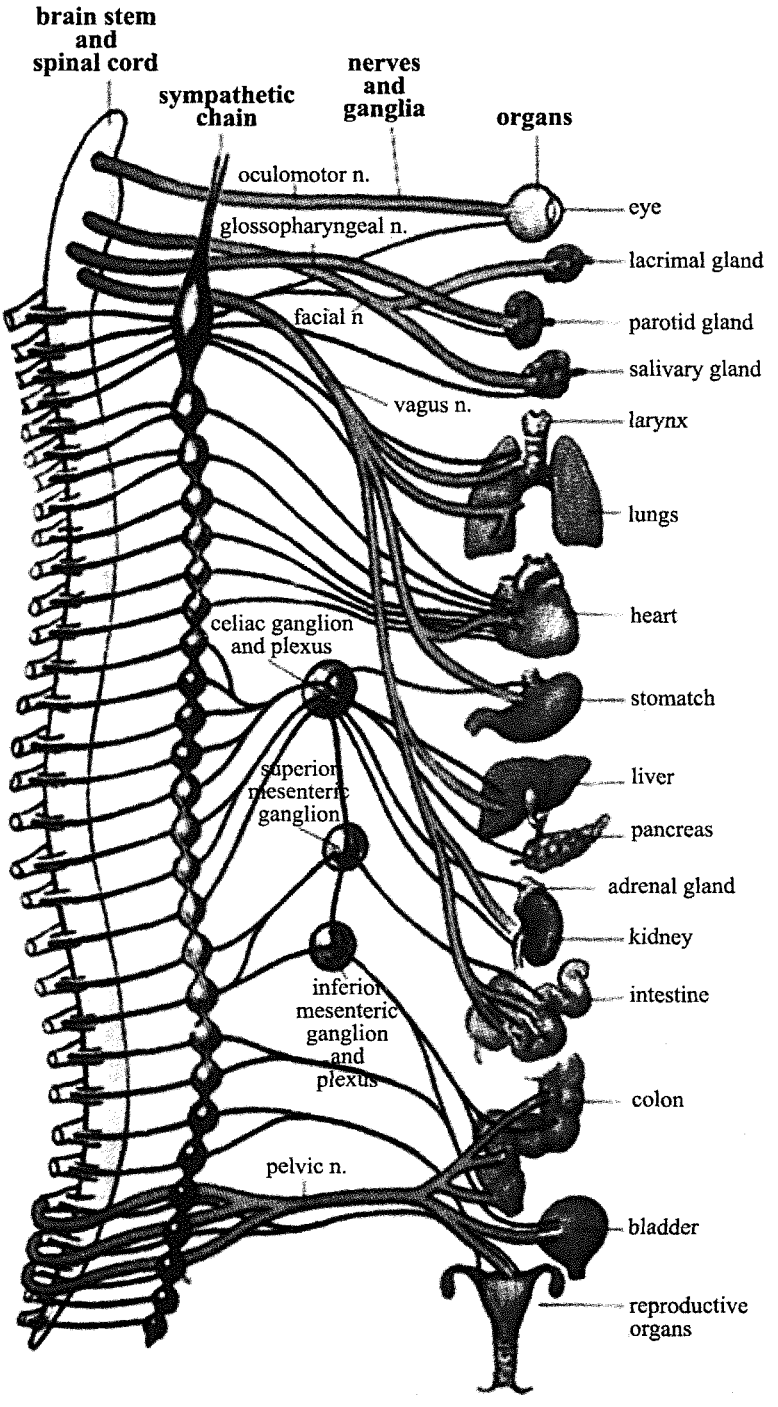


Fig. 20–2. The autonomic nervous system

Exercise 4. Define the following terms.

Plexus, ganglia, autonomic nervous system, somatic nervous system, neuritis, neuron, herpes zoster, synapse, nervous system.

Exercise 5. Differentiate between the sympathetic and parasympathetic nervous systems.

II. Grammar Exercises

Exercise 1. Translate the following sentences. Pay attention to the translation of the indefinite gerund active as a:

a) noun:

1. He likes swimming.
2. They are fond of jumping.
3. You don't mind testing.

b) infinitive:

1. She is afraid of operating.
2. He was not against her coming here.
3. My friends enjoy sitting in the sun.

c) participle:

1. He went away without leaving his address.
2. After sleeping for about an hour, the child began to cry again.
3. We can treat this disease by using anti-inflammatory drugs.

d) verb:

Model:

He is proud of having been invited to the congress.	*Він гордий (тим), що його запросили на з'їзд.*

1. There is no hope of our seeing him soon.
2. I was very glad of my friend's helping me with this work.
3. We insisted on being informed of the beginning of that operation.

Exercise 2. State the parts of speech of the following words.

Treat – treatment; toxic – toxicogenetic – toxicosis – intoxicate; associated – association; main – mainly; available – availability; determinate – determine – determination; restriction – restrictive.

Exercise 3. Make up all possible questions based on the sentence.

Human appetite is regulated by chemical balance between a part of the brain and various chemicals.

Exercise 4. Translate into English using gerunds.

1. Той хлопець дуже любить подорожувати. 2. Ти боїшся прийти туди першим? 3. Після того, як хірург обстежував хворих протягом години, він пішов до операційної. 4. Мені сказали про те, що він вступив до медичного коледжу.

III. Independent Work: This Is Incredibly Lovely

Exercise 1. Read the text.

This Is Incredibly Lovely

Two man, both seriously ill, occupied the same hospital room. One man was allowed to sit upon his bed for an hour each afternoon to help drain the fluid from his lungs. His bed was next to the room's only window. The other man had to spend all his time flat on his back. The men talked for hours. They spoke of their wives and families, their homes, their jobs, their involvement in the military service, where they had been on vacation. And every afternoon when the man in the bed near the window could sit up, he would pass time by describing to his roommate all the things he could see outside the window.

The man in the other bed began to live for those one-hour periods where his world would be broadened and enlivened by all the activity and color of the world outside. The window overlooked a park with a lovely lake. Ducks and swans played on the water while children sailed their model boats. Young lovers walked arm in arm amidst flowers of every color of the rainbow. Grand old trees graced the landscape, and a fine view of the city skyline could be seen in the distance. As the man by the window described all this in detail, the man on the other side of the room would close his eyes and imagine the picturesque scene.

One warm afternoon the man by the window described a parade passing by. Although the other man couldn't hear the band – he could see it in his mind's eye as a gentleman by the window portrayed it with descriptive words. Days and weeks passed.

One morning the day nurse arrived to bring water for their baths only to find the lifeless body of the man by the window, who had died peacefully in his sleep. She was saddened and called the hospital attendants to take the body away. As soon as it seemed appropriate, the other man asked if he could be moved next to the window. The nurse was happy to make the switch, and after making sure he was comfortable, she left him alone. Slowly, painfully, he propped himself up on one elbow to take his first look at the world outside. Finally, he would have the joy of seeing it for himself. He strained to slowly turn to look out the window beside the bed. It faced a blank wall. The man asked the nurse what could have compelled his deceased roommate who had described such wonderful things outside this window. The nurse responded that the man was blind and could not even see the wall. She said, "Perhaps he just wanted to encourage you."

Epilogue... There is tremendous happiness in making others happy, despite our own situations. Shared grief is half the sorrow, but happiness when shared, is doubled. If you want to feel rich, just count all of the things you have that money can't buy. "Today is the gift, that's why it is called the present."

Exercise 2. Write out new words into your vocabulary.

Exercise 3. Retell the story.

UNIT TWENTY-ONE

I	**Speaking**	Nervous System (Part III)
II	**Grammar**	Gerund and Verbal Noun (§110)
III	**Independent Work**	Sleep

I. Speaking: Nervous System (Part III)

After careful study of this unit you should be able to:
- *give the location of four main divisions of the brain;*
- *name three meninges;*
- *describe the cerebrospinal fluid;*
- *cite the function of the cerebral cortex;*
- *list the 12 cranial nerves and their functions.*

Exercise 1. Read and learn the following words, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
brain stem		мозковий стовбур
cerebellum	cerebellum	мозочок
cortex ['kɔ:teks]	cortex	кора
cerebrospinal fluid	liquor cerebrospinalis	спинномозкова рідина
cerebrum, brain	cerebrum/encephalon	головний мозок
hypothalamus [ˌhaipə'θæləməs]	hypothalamus	гіпоталамус
medulla oblongata [me'dʌlə ˌɒblɒŋ'gɑ:tə]	medulla oblongata (bulbus cerebri)	довгастий мозок (цибулина)
meninges	meninges	оболонки мозку
midbrain	mesencephalon	середній мозок
pons varolii [ve'rəʊli ˌai]	pons Varolii	Вароліїв міст
thalamus	thalamus	таламус
ventricle	ventriculus	шлуночок
hemisphere ['hemisfiə]	hemispherium	півкуля
diencephalon	diencephalon	проміжний мозок
dura mater ['djʊərə'meitə] of the brain	dura mater cranialis	тверда оболонка головного мозку
arachnoid [ə'ræknɔid]	arachnoidea mater	павутинна оболонка
pia ['paiə] mater	pia mater cranialis	м'яка оболонка
gyrus, gyri ['ʤairəs]	gyri celebrales	звивини великого мозку
sulcus, sulci ['sʌlsai]	sulci cerebrales	борозни великого мозку

Exercise 2. Read and translate the definitions of some terms on the topic.

1) Dura mater is the upper layer, the outmost of the three membranes, which surrounds the spinal cord and is the toughest and most fibrous substance.

2) Arachnoid membrane is the middle part, which lies between the dura and pia maters.

3) Pia mater is the vascular membrane, thin and delicate, immediately enveloping the brain and spinal cord.

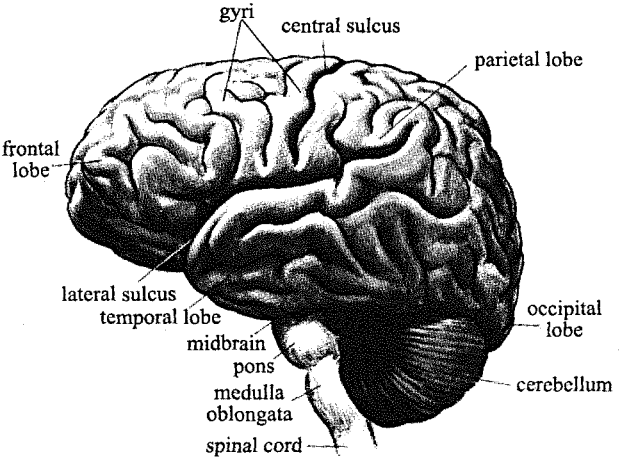


Fig. 21–1. Brain structure

4) Pons is a piece of connecting tissue, the bridge of white matter at the base of the brain, containing neural connections between the cerebrum and cerebellum.

5) Cerebrum is the largest part of the brain, composed of the left and right hemispheres and diencephalon.

6) Gyri (pl.) are the raised areas of the cerebral cortex.

7) Sulci (pl.) are shallow grooves, convolutions of the cerebral cortex.

8) Cerebral cortex is the very thin outer layer of gray matter on the surface of the cerebral hemispheres.

9) Cerebrospinal fluid is fluid that circulates in and around the brain and spinal cord (CSF). It protects the brain from shock.

Exercise 3. Look at Fig. 21–1 and describe the brain. Here is a plan for you to speak about the brain.

A. 1. Meninges – coverings of the brain and spinal cord:

a) dura mater;

b) arachnoid membrane;

c) pia mater.

2. Cerebrospinal fluid (CSF).

B. Divisions of the brain.

1. Cerebrum – the largest part of the brain (right and left hemispheres):

a) lobes – frontal, parietal, temporal, occipital, insula;

b) cortex – outer layer of gray matter.

2. Diencephalon: area between hemispheres and brain stem.

3. Thalamus – directs sensory impulses to cortex.

4. Hypothalamus – maintains homeostasis, controls pituitary ([pi'tju:itəri] – гіпофіз).

5. Limbic system:

a) contains parts of cerebrum and diencephalon;

b) controls emotion and behavior.

6. Brain stem:

a) midbrain – involved in eye and ear reflexes;
b) pons – connecting link for other divisions;
c) medulla oblongata – connects with spinal cord; contains vital centers for respiration, heart rate, vasomotor activity.

*7. **Cerebellum*** – regulates coordination, balance, muscle tone.

Exercise 4. Read and translate the text.

Cranial Nerves

There are 12 pairs of cranial nerves. They can be divided into four categories according to their functions:

1. Special sensory impulses, such as those for smell, taste, vision, and hearing.
2. General sensory impulses, such as those for pain, touch, temperature, deep muscle sense, pressure, and vibration.
3. Somatic motor impulses, resulting in voluntary control of skeletal muscles.
4. Visceral motor impulses producing involuntary control of glands and muscles of the heart and smooth muscles.

The cranial nerves are numbered according to their connection with the brain, beginning at the front and proceeding back (Fig. 21–3).

Exercise 5. Look at Fig. 21–2. Name all the activities regulated by the left and right hemispheres.

Exercise 6. Learn the names of all cranial nerves and the parts of their control.

No	Cranial nerves	Areas of the body controlled by these nerves
I	The olfactory [ɒl'fæktəri] nerve (нюховий)	Carries smell impulses from receptors in the nasal mucosa to the brain
II	The optic n. (зоровий)	Carries visual impulses from the eye to the brain
III	The oculomotor [ˌɒkjʊləʊ'məʊtə] n. (окоруховий)	Is concerned with the contraction of most of the eye muscles
IV	The trochear ['trɒkiə] n. (блоковий)	Supplies one eyeball muscle
V	The trigeminal [trai'ʤeminəl] n. (трійчастий)	Is the great sensory nerve of the head, it has three branches that carry general sense impulses (pain, touch, temperature). The third branch is joined by motor fibers to the muscles of mastication (chewing) (жування)
VI	The abducent [æb'dju:sənt] n. (відвідний)	Is also sending impulses to the eyeball muscle
VII	The facial n. (лицьовий)	Supplies the muscles of facial expression, it contains: sensory fibers for taste (on the tongue); secretory fibers to the smaller salivary glands and to the lacrimal (слізна) gland
VIII	The verstibulocochlear [veˌstibʊlə'kɒkliə] n. (присінково-завитковий)	Contains special sensory fibers for hearing and for balance. Another name is auditory ['ɔ:ditəri] or acoustic [ə'ku:stik] nerve (слуховий/акустичний)

No	Cranial nerves	Areas of the body controlled by these nerves
IX	The glossopharyngeal [ˌglɒsəʊˌfærinˈdʒi:əl] n. (язико-глотковий)	Contains general sensory fibers from the back of the tongue and the throat; and motor fibers to control the swallowing (ковтання) muscles in the pharynx
X	The vagus [ˈveigəs] n. (блукаючий)	Is the longest cranial nerve. It supplies most of the organs in the thoracic and abdominal cavities. It contains motor fibres to the voice box, larynx, pharynx, and to glands that produce digestive juices and other secretions
XI	The accessory [ækˈsesəri] n. (додатковий)	Formely called the spinal accessory nerve, it has two branches. One branch controls two muscles of the neck, the other supplies muscles of the larynx
XII	The hypoglossal [ˌhaipəˈglɒsəl] n. (під'язиковий)	Carries impulses controlling the muscles of the tongue

II. Grammar Exercises

Exercise 1. State the parts of speech of the following words:

Act – action – active – activity – activate – activation;
flexibility – flexion – flexible;
assess – assessment – reassessment;

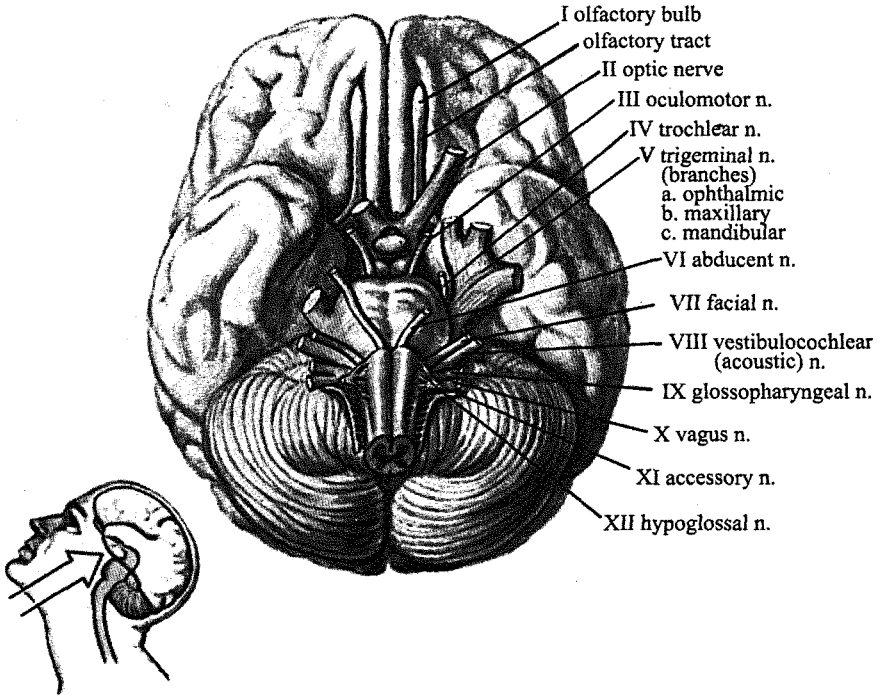


Fig. 21–2. Brain nerves

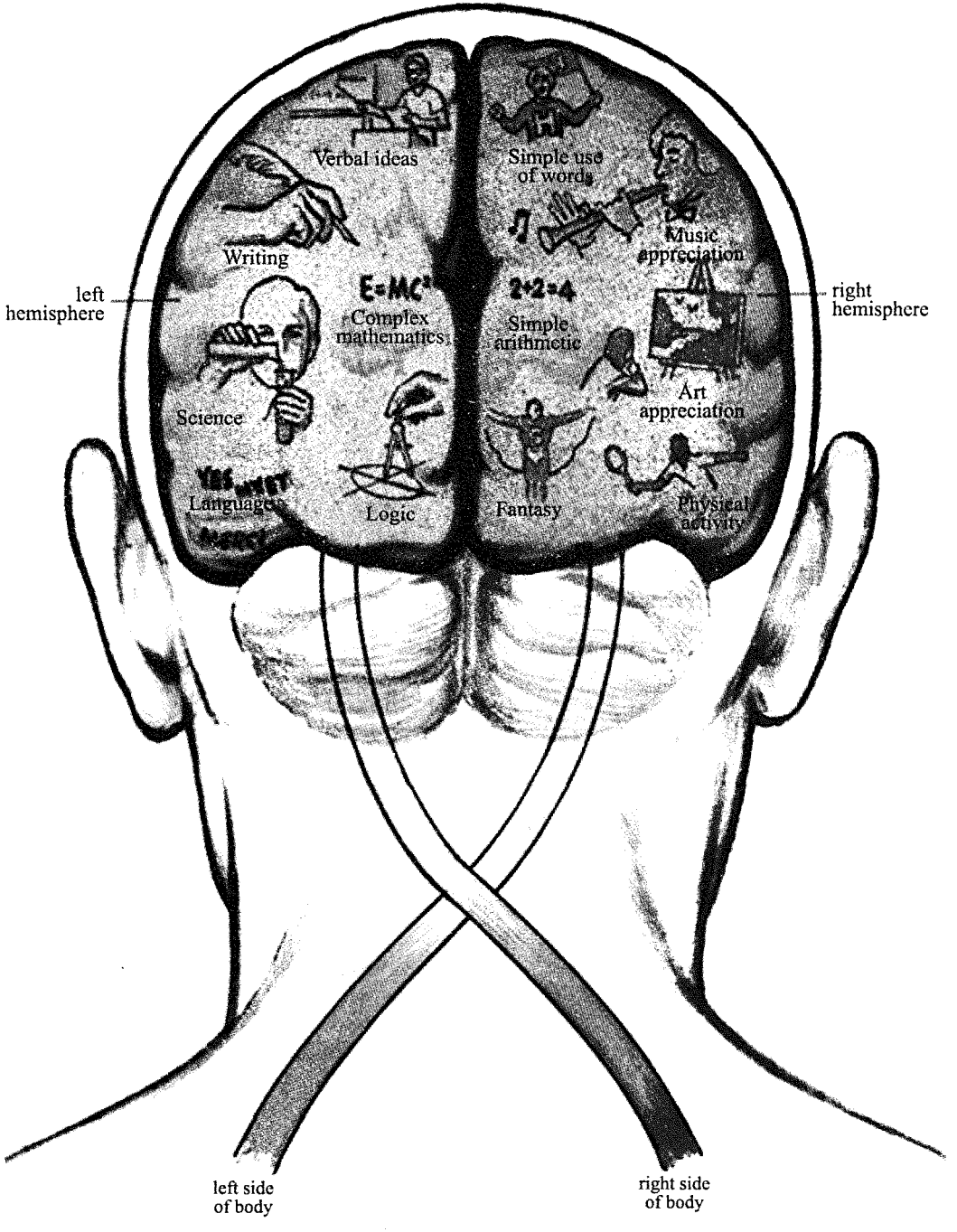


Fig. 21–3. Cerebral hemispheres and actions regulated by them

quantity – quantitative – quantify;
nature – natural – naturally – naturalist;
automat – automatic – automaticity – automatical – automatism;
investigate – investigation – investigator – investigatory;
exist – existence – existent.

Exercise 2. Translate into English using gerunds.

1. Він ніколи не думав про те, щоб стати хірургом. 2. Лікар приписав вживати подвійну дозу. 3. Хто відповідає за годування лежачих хворих? 4. Вони вважають можливим врятувати життя цієї дівчинки. 5. Давай поговоримо. Ти вже втомився читати.

Exercise 3. Translate the following sentences, pay attention that *the only* means "єдиний".

1. Insulin isn't the only cause of hypoglycemia. 2. Glucose is the only energy source that the brain can utilize. 3. The only sure way of diagnosing tuberculosis at present is to find tubercle bacillus. 4. The only good results in treating this disease are with drugs.

Exercise 4. Find verbal nouns and translate the sentences into Ukrainian.

1. There are many beginnings in all branches of medicine. 2. Your endless comings and goings out disturb the patient. 3. Human beings differ from animals. 4. Clotting of blood is a very complex process. 5. The blood findings are normal in both cases. 6. In the case of peptic ulcer pain follows meals. 7. The lining of the oral epithelium is protective. 8. An infant needs several feedings during the day and night.

Exercise 5. a) Pay attention to the following verbs. They don't form nouns with *-ing*; memorize them:

to manufacture (виробляти) – manufacture (виробництво);
to produce (виробляти) – production (виробництво);
to ship (вантажити) – shipment (вантаження);
to deliver (постачати) – delivery (постачання);
to arrive (прибувати) – arrival (прибуття);
to sell (продавати) – sale (продаж).

b) Make up sentences with each of the words above.

III. Independent Work: Sleep

Exercise 1. Read the text, translate it.

Sleep

Sleep is a periodic resting condition of the body and especially of the nervous system.

There is a natural rotation of sleeping and waking every twenty-four hours, and sleep comes on commonly during the night when little work can be done. Sleep is not, however, a

necessary consequence of darkness, as is proved by those persons who have to work in the night and sleep by day, who easily adapt themselves to this condition.

Many theories have been advanced as to the cause of sleep. One theory depends upon the well-known fact that the brain receives much smaller blood supply during sleeping than in the waking state.

Another theory is the chemical one stating that sleep is due to want of oxygen in the nerve centers.

A third theory raises the question as to whether the mind remains active during the period of sleep.

None of these theories explains the direct cause of sleep, although each probably accounts for the main cause of different circumstances.

When sleep comes on, the eyes are closed as a rule, though in man, even when they are left open, the sense of sight is quickly lost as the sleep deepens. The pupils contract also during sleep and dilate widely as the person wakens.

Hearing is lost more slowly and a person can be wakened even from deep sleep by a loud noise. In natural sleep touch remains the least affected of senses, and even the lightest touch will awaken many people from deep sleep. With regards to the onset of sleep as it affects the mind willpower is the first faculty to go and the last to appear[1] in wakening. The association of ideas and power of reasoning disappears next and people are worried in light sleep by some simple ideas which they cannot explain or understand.

Memory and imagination remain longest, and in dreams the mind is presented with a series of bright, unconnected pictures. The part of the brain which regulates the power of movement is late in falling asleep, sleeps only lightly since people may turn and make various other movements without waking.

Other parts of the body, as well as the brain, rest during sleep.

Note:

[1] the first faculty to go and the last to appear – здатність, що першою зникає і останньою з'являється

Exercise 2. Make up a plan of the text.

Exercise 3. Find sentences about the theory of sleep.

Exercise 4. Find English equivalents.

1. Про причину сну було висунуто багато теорій.
2. Жодна з теорій не пояснює прямої причини сну.
3. Сон, однак, не пов'язаний із настанням темряви.

Exercise 5. Answer the questions.

1. What is sleep?
2. What are the theories of sleep?
3. What organs of sense are affected first?
4. What organs are late in falling asleep?

Exercise 6. Describe the process of falling asleep.

UNIT TWENTY-TWO

I	**Speaking**	Nervous System (Part IV)
II	**Grammar**	Impersonal Verb Forms (Revision) (§§95–110)
III	**Independent Work**	Pain

I. Speaking: Nervous System (Part IV)

After careful study of this unit you should be able to:
– name different methods of brain studies;
– list nervous and psychiatric diseases;
– name medicines used to treat these diseases.

Exercise 1. Read and learn the following words, pay attention to their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
A		
amaurosis [ˌæmɔːˈrəʊsis]	amaurosis	сліпота
amnesia [æmˈnizjə]	amnesia	втрата пам'яті
anosmia [æˈnɒsmiə]	anosmia	втрата нюху
areflexia [æreflˈeksiə]	areflexia	відсутність рефлексів
ataxia [æˈtæksiə]	ataxia	розлад координації рухів, атаксія
hemicrania	hemicrania	мігрень
meningitis	meningitis	запалення оболонок головного мозку, менінгіт
myelitis	myelitis	запалення спинного мозку
neuralgia [njʊˈrældʒiə]	neuralgia	невралгія
epilepsy [ˈepilepsi]	epilepsia	епілепсія
aphasia [əˈfeiziə]	aphasia	афазія, порушення мовлення
paresis [pəˈriːsis]	paresis	парез, напівпараліч
plegia [ˈpliːdʒə]	plegia, paralysis	повна відсутність довільних рухів
insult	insultus	інсульт (удар)
radiculitis, nerve root syndrome	radiculitis	радикуліт (ураження корінців спинномозкових нервів)
B		
agents (a.)	remedia	засоби (лікарські)
narcotic a.	narcotica	наркотичні засоби
soporific a.	hypnotica	снодійні засоби
neuroleptic a.	neuroleptica	нейролептичні засоби
aminazine	Aminazinum	аміназин
tranquilizing a.	tranquilara	транквілізатори, заспокійливі засоби

English	Latin/Greek	Ukrainian
antidepressants	antidepressanta	антидепресанти
stimulating a.	stimulatores	стимулятори (ЦНС)
sedative a.	sedativa	заспокійливі засоби
analgetic a.	analgetica	знеболюючі засоби
anticonvulsive a.	anticonvulsia	протисудомні засоби
bromides	bromida	броміди

Exercise 2. Read the text, make up a plan of it.

Brain Studies

CT (computer tomography) scan is the major tool for clinical study of the brain. By means of a computer, the information is organized and displayed as photos of bones, soft tissues, and cavities of the brain.

MRI (magnetic resonance imaging) gives even clearer pictures of the brain without the use of dyes or X-rays. The method is based on computerized interpretation of the movements of atomic nuclei following exposure to radio waves within a powerful magnetic field. It gives more views of the brain and hemorrhaging not shown by CT.

With PET (positron emission tomography) one can actually see the brain in action. With this method, a radioactively labelled substance, for example glucose, is followed as it moves through the brain. It may be recorded by an instrument called electoroencephalograph. The recorded tracings or brain waves produce an electoroencephalogram (EEG).

Exercise 3. Answer the following questions.

1. What is CTS? 2. What does the method of MRI mean? 3. What is EEG? 4. What can we study with the help of the electroencephalograph?

Exercise 4. Read and translate the following clinical conditions of brain disorders.

Ataxia is the lack of muscular coordination.

Aphasia [æ'feizjə] is a total or partial loss of the power to use or understand words. This condition is caused by brain disease or injury.

Cerebrovascular [ˌseribrə'væskjʊlə] accident is the condition involving bleeding from the brain or obstruction of blood flow to the brain tissue.

Encephalomyelitis [enˌsefələʊˌmaiə'laitis] is the inflammation of the brain and spinal cord. In most cases it is a virus disease.

Parkinson's disease appears commonly in people over 60. This disease is characterized by tremors, slowness of movement, body rigidity, and inability to maintain posture.

Epilepsy is a chronic disorder involving an abnormality of the electric activity of the brain with or without apparent changes in the nerve tissues. The cause of diseases is unknown. The attacks of epilepsy may be so mild as to be hardly noticeable or so severe as to result in loss of consciousness.

Tumors of the brain are growths of brain tissues and meninges of abnormal character.

Glioma [glai'əumə] is a tumor that arises from supporting structure of nerves – neuroglia.

Multiple sclerosis is a chronic disease in which there is scattered demyelination of the central nervous system: it is characterized by speech defects, loss of muscular coordination, etc.

Exercise 5. Prove that the brain is responsible for all activities of the organs and organism as a whole.

Exercise 6. Translate into English.

1. Транквілізатори – це заспокійливі засоби. 2. Вони мають властивості зменшення негативних емоційних реакцій, таких як страх, тривога, неспокій. 3. Броміди застосовуються в медицині з 1926 року як заспокійливі засоби. 4. Настійка валеріани руйнується під впливом сонячного проміння. 5. Для лікування ЦНС лікарі застосовують багато ліків, що діляться на підгрупи: засоби для наркозу, снодійні, протисудомні, наркотичні анальгетики, нейролептики, транквілізатори та заспокійливі засоби. 6. Наркоз – це штучно викликаний глибокий сон. 7. Аміназин – це нейролептичний засіб, що знижує кров'яний тиск, усуває тривогу і страх. 8. Больові рецептори – це вільні нервові закінчення, що розміщені в поверхневих та глибоких шарах шкіри, у внутрішніх органах, стінках артеріальних судин. 9. Морфін – це наркотичний анальгетик, що легко всмоктується в кров із кишечника.

II. Grammar Exercises

Exercise 1. Translate the following international words.

Polyclinic, comfort, regular, visit, normal, method, program, personnel, philosophy, culture, logic, medicine, temperature, consultation, examination, vaccination, periodic, instruction.

Exercise 2. Transform the sentences using gerunds instead of infinitives according to the model.

Model: *We continue to study anatomy.*
We continue studying anatomy.

1. My sister began to work at this big hospital five years ago. 2. She has just finished to dress the wound of the patient. 3. We preferred to speak to the director. 4. I have just begun to translate the text.

Exercise 3. Make the following sentences interrogative.

1. Reading medical articles is important for a nurse. 2. I know of his having been proposed a new job at a hospital. 3. Instead of operating this patient they decided to use the new method of treatment the disease. 4. Copying the text he made a few mistakes. 5. After graduating from our medical college she will work as a nurse.

Exercise 4. Complete the following sentences.

1. After having made the operation ...

2. Developing this method of treatment ...
3. Nowadays nurses prefer using ...
4. After returning to the ward ...
5. We think of going ...

Exercise 5. Translate into English.

1. Я не міг підготувати доповідь про екологічну ситуацію в Україні, не прочитавши цієї статті. 2. Очевидно, лікування буде тривати два тижні. 3. Закінчивши медичний коледж, вона повернулась працювати до рідного села. 4. Дякую за те, що ви зробили мені перев'язку. 5. Я запитала, чи впевнений він у тому, що складе всі іспити.

III. Independent Work: Pain

Exercise 1. Read the text.

Pain

There are no adequate stimuli for pain; any form of stimulus evokes pain if it's sufficiently strong. Pain is the most primitive and one of the most important sensations. It is generally held that the free nerve endings of small myelinated fibers which do not end in specialized anatomic structures constitute the receptors for pain. They are the most widely distributed receptors in the body, being found in the skin, cornea, blood vessels, and most viscera. The threshold of irritability is high; consequently the stimulations appearing in them are of such intensity as to threaten health and life. For this reason they are frequently called nociceptors. They elicit protective and defensive reflexes. Because of their vital importance, the impulses from the nociceptors always take precedence in the reflex activity of the nervous system.

Many internal organs are insensitive to what are generally regarded as painful stimuli. Tumors have been removed from the brain of patients, who remained conscious during the entire operation, without causing any pain. Handling, cutting or cauterizing the intestine never gives rise to pain. However, pain can be elicited from most hollow organs by an increase of the tension of their walls: this is brought about by great distension (e.g. accumulation of gas in the intestine, or the passage of a gallstone through the bile ducts) or by excessive contraction of their musculature.

Pain can be relieved by reducing the irritability of the nerve as by compression, cold, drugs or by reducing the sensitivity of the cerebral cells, as in general anesthesia.

Pain can be elicited by stimulating a nerve fiber at any point along its course, but the sensation is always referred, or projected, to the endings of the nerve.

Pain cannot always be definitely localized, especially when it is severe and of long duration, the sensation then seems to spread to neighboring parts.

Pain experienced in internal organs is sometimes referred to another and generally, external part of the body. In diseases of some internal organs, certain cutaneous areas may become hyperalgesic (excessively sensitive to pain), so that the least stimulation, such as a soft touch, or even a breath of air, applied to this part of the skin gives rise to pain.

Exercise 2. Find interpretation of the following words in the dictionary.
To evoke, sufficiently, cornea, viscera, threshold, irritability, to threaten, nociceptor, to elicit.

Exercise 3. Find sentences about receptors in the text.

Exercise 4. Find sentences about reaction of the visceral organs to pain.

Exercise 5. Answer the questions.
1. How can pain be relieved? 2. Can pain be localized? 3. Where are receptors for pain distributed? 4. What are nociceptors? 5. Is pain the most primitive sensation?

UNIT TWENTY-THREE

I	**Speaking**	Sensory System
II	**Grammar**	Modal Verbs and Verbs of Modal Meaning
III	**Independent Work**	Drugs

I. Speaking: Sensory System

After careful study of this unit you should be able to:
– *describe the function of the sensory system;*
– *list the major senses;*
– *describe the structure of the eye;*
– *list several disorders of the eye;*
– *describe the structure of the ear;*
– *list disorders of the ear;*
– *name other special sense organs;*
– *list general senses.*

Exercise 1. Read and learn the following words, compare them with their Latin/Greek equivalents.

English	Latin/Greek	Ukrainian
eye [ai]	oculus/ophthalm-	око
ear [iə]	auris/oto-	вухо
taste [teist]	gustus/geusus	смак
smell [smel]	odor/osme-	запах
eyesight, vision ['viʒən]	visus/opsia	зір
tear [tiə]	lactima/dacry-	сльоза
hunger ['hʌŋgə]	famēs/lim-	голод

English	Latin/Greek	Ukrainian
hearing	auditus/phon-	слух
scent	olfactus/osm-	нюх
thirst [θɜ:st]	sitis/dips-	спрага
heat [hi:t]	calor/pyro-, therm-	тепло
cold [kəʊld]	gelu/cryo-	холод
light [lait]	lux/phot-	світло
pupil	pupilla/coria	зіниця
lens	lēns/phac-	кришталик
cornea [ˈkɔ:niə]	cornea/kerato-	рогівка
iris [ˈairis]	iris, iridis	райдужна оболонка
ossicle	ossiculum	кісточка
cochlea [ˈkɒkliə]	cochlea	завиток
sclera [skˈliərə]	sclera	склера (білкова оболонка)
glaucoma	glaucoma	глаукома
semicircular [ˌsemisˈɜ:kjʊlə] canal	canalis semicircularis	напівколові канали
vestibule	vestibulum	присінок
eardrum	tympanum	барабанна перетинка
otitis [əʊˈtaitis] media	otitis media	отит, запалення середнього вуха

Exercise 2. Read the information about the sensory system, translate it and learn by heart.

The sensory system serves fundamentally to protect the individual by detecting changes in the environment. The sensory system includes:

1. Vision from receptors in the eye.
2. Hearing from receptors in the ear.
3. Taste from the tongue receptors.
4. Smell from receptors in the upper nasal cavities.
5. Pressure, heat, cold, pain, and touch from receptors in the skin.
6. Position and balance from the muscles, tendons, joints, and ear.

Exercise 3. Acquaint yourself with the structure of the eye using Fig. 22–1.

a) Make up your own vocabulary using the dictionary.

b) Learn the words.

c) Describe the structure of the eye.

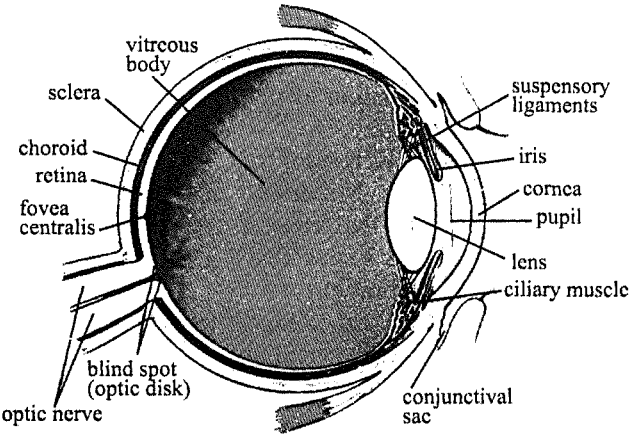


Fig. 22–1. Eye structure

Exercise 4. Read the information about eye disorders.

The conjunctiva [ˌkɒnʤʌŋkˈtaivə] is a membrane that lines the eyelid (повіка) and covers the anterior part of the sclera. Its inflammation is called conjunctivitis.

Eyestrain, or fatigue of the eyes, may result from overuse of the eyes: reading, watching TV, poor lighting, or disturbances in the focusing ability of the eyes. Hyperopia [ˌhaipəˈrəʊpiə] is farsightedness.

Myopia [maiˈəʊpiə] is nearsightedness.

Astigmatism [æˈstigmætizm] is due to irregularity in the curvature of the cornea or the lens (as a result, light rays are incorrectly bent).

Strabismus [strəˈbizməs] means that the muscles of the eyeballs do not coordinate, so that the two eyes do not work together (косоокість).

Blindness is the absence of vision. It may be caused by cataracts, glaucoma or retinal detachment.

Exercise 5. Answer the following questions.

1. What disorders of the eyes can you name?
2. What is the difference between an oculist and an ophthalmologist?
3. What causes of eyestrain do you know?
4. What belongs to the sensory system?

Exercise 6. Acquaint yourself with the structure of the ear using Fig. 22–2.

a) Make up your own vocabulary of new words.

b) Learn these words.

c) Describe the structure of the ear.

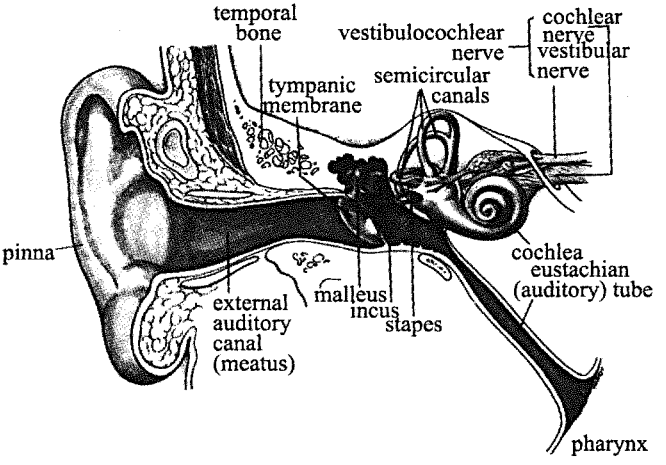


Fig. 22–2. Ear structure

Exercise 7. Here is a list of ear disorders. Read it and try to memorize.

- ***Otitis*** (inflammation of the middle ear);
- ***deafness*** (loss of hearing);
- ***otosclerosis*** (a hereditary (спадковий) disease that causes bone changes in the stapes that prevent its normal vibration);
- ***presbyacusis*** [ˌprezbɛəˈku:sis] (a slowly progressive loss of hearing that often accompanies aging).

Exercise 8. Answer the questions (use Fig. 22–3).

- What are the organs of taste and smell?
- What kinds of taste do you know?

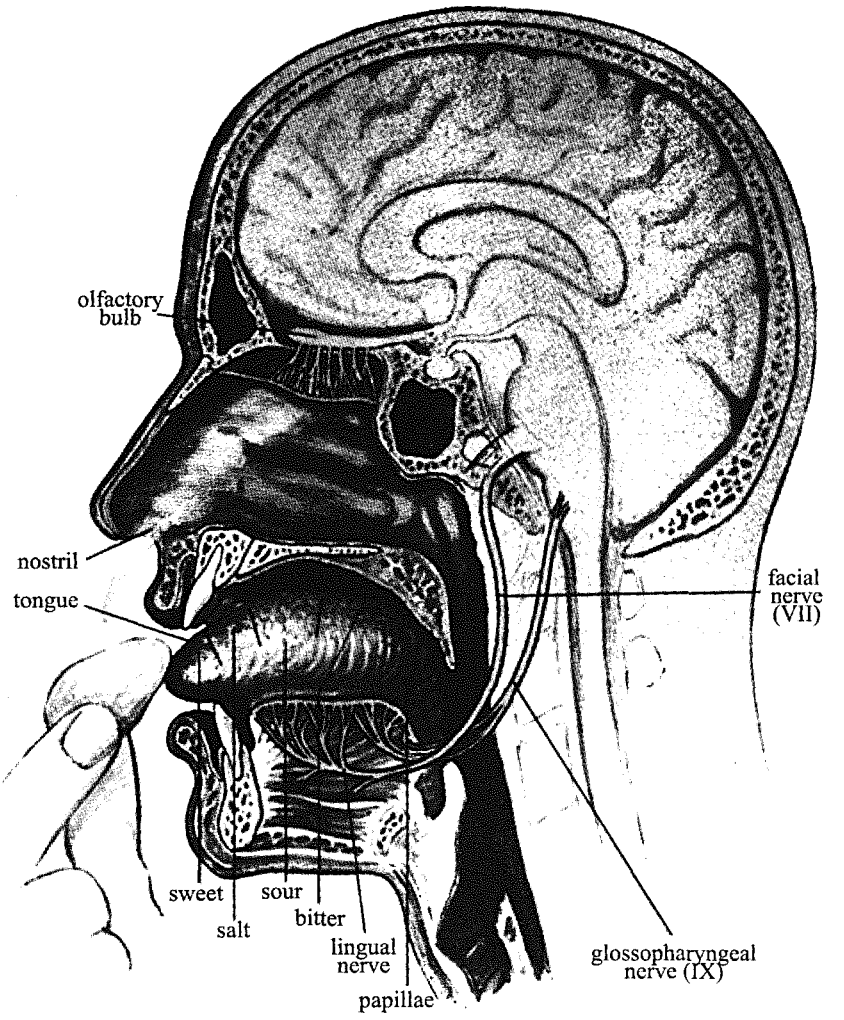


Fig. 22–3. Organs of taste and smell

Exercise 9. Read and translate the text.

Sense Organs

Sense organs are the structures in the body which are influenced by certain factors in the environment. They are also well-known as receptors. The action of the environmental factor on the body is known as a stimulus. It results in the transmission of a nerve impulse to the nerve center and from this point may influence appropriate reactions of the body or may be stored in memory.

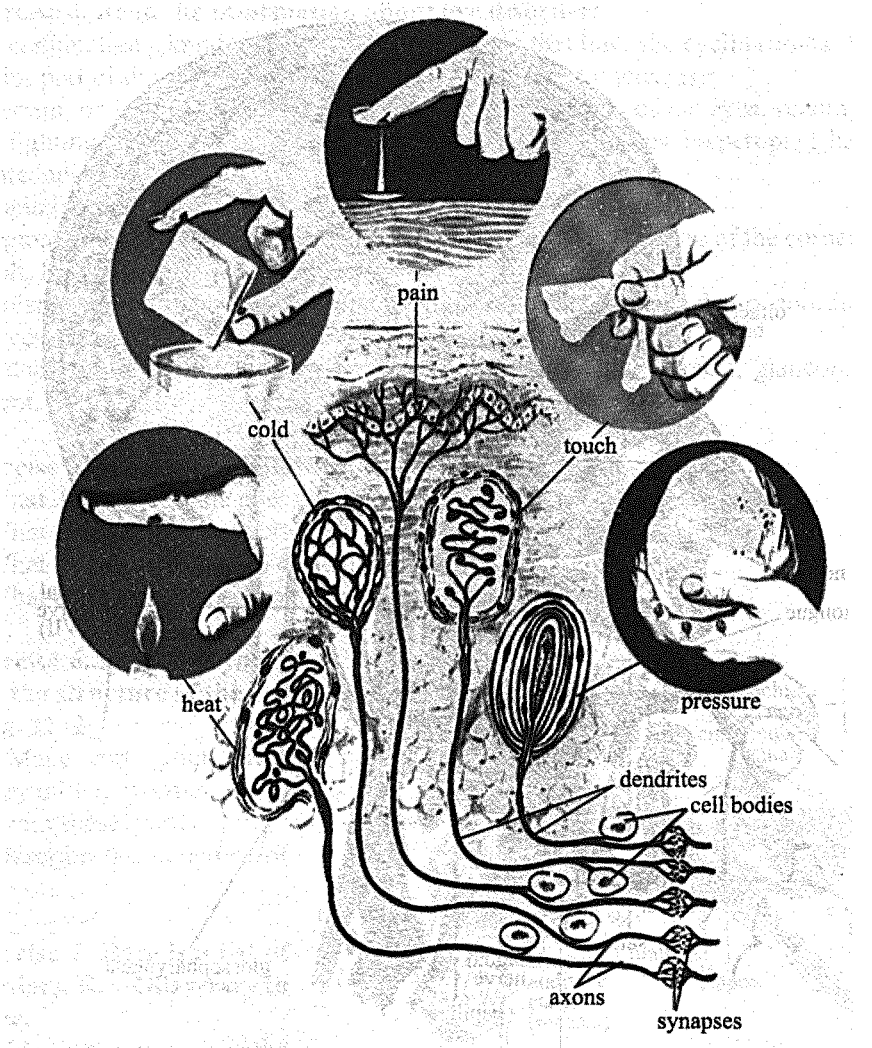


Fig. 22–4. The diagram shows superficial receptors (end organs) and the deeper cell bodies and synapses, suggesting the continuity of sensory pathways into the CNS

Stimuli arise from contacts with solid objects, from chemical compounds, either dissolved or in the gaseous state, from the incidence of light rays, from factors that damage the body (Fig. 22–4).

Tactile corpuscles located in surface tissues may be classed as organs of touch. They are sensitive to simple pressure and give rise to images of form through the varying pressures due to uneven and gross contours.

The varied integumentary sense organs of the human body are known to include some sensitive only to heat, cold or pain. These organs may be free nerve endings found in the skin.

Ears are the center of the auditory organs. Dissolved substances stimulate organs of taste located in the oral cavity and gases or vapors act on organs of smell. Sense organs stimulated

by light are familiar to us in our own eyes. In contrast with sense organs mentioned above which are classed as exteroceptors, the body contains others called interoceptors. They are sources of sensations of hunger, thirst, nausea and external pain. Other interoceptors in the muscles, joints and tendons are associated with the maintenance of equilibrium and are classed as proprioceptors. The semicircular canals of the inner ear are also organs of equilibration.

All sense organs consist of nerve endings associated with various specialized cells or tissues. The nerves are not limited to one type of stimulation but other response may be identical under various stimuli. Thus a mechanical shock to the eye produces a sensation of light. The nerve fibers leading from the sense organs towards the central system are sensory or afferent.

Exercise 10. Find English equivalents.

Стимули виникають від контактів з твердими речовинами; вони – джерела відчуття голоду, спраги, нудоти і зовнішнього болю; всі органи відчуттів складаються з нервових закінчень.

Control Tests. Nervous System and Sense Organs

1. What system is responsible for all activities of organs and systems of organs in the human body?
   A. Endocrine
   B. Muscular
   C. Nervous
   D. Reproductive
   E. Digestive

2. What is the role of the nervous system?
   A. Regulation and control of all systems of the body
   B. Metabolism
   C. Nutrition
   D. Respiration
   E. Production of enzymes

3. What is the structural unit of the nervous system?
   A. Enzyme
   B. Hormone
   C. Nephron
   D. Neuron
   E. Substance

4. What does the central nervous system consist of?
   A. The brain
   B. The brain and spinal cord
   C. The spinal cord
   D. Nerves and ganglia
   E. Ganglia

5. What isn't included into the neuron?
   A. Axon
   B. Dendrite
   C. Body of neuron
   D. Pigment
   E. Neuron ending

6. The main property of the nerve fibre is ___.
   A. dividing
   B. widening
   C. spreading
   D. reaction to pain
   E. stimulation

7. What does the term "encephalitis" mean?
   A. Inflammation of the brain
   B. Inflammation of the spinal nerves
   C. Inflammation of the brain mater
   D. Inflammation of the cricoid nerve
   E. Inflammation of the head

8. What part of the brain controls the left part of the body?
   A. Central
   B. Frontal

C. Left
D. Right
E. Back

9. What is the largest portion of the brain?
A. Medulla oblongata
B. Cerebellum
C. Cerebrum
D. Ventriculus
E. Brain stem

10. What is the junction between neurons called?
A. Axon
B. Dendrite
C. Synapse
D. Impulse
E. Reflex

11. What conducts impulses from the cell body?
A. Afferent nerves
B. Efferent nerves
C. Motor fibers
D. Sensory fibers
E. Axon

12. What conducts impulses to the cell body?
A. Dendrite
B. Axon
C. Nerve fiber
D. Bundle of nerves
E. All answers are right

13. Nerve ___ is an electric current that spreads along the nerve fiber.
A. cell
B. ending
C. bundle
D. impulse
E. function

14. ___ is a simple, rapid, automatic response involving few neurons.
A. Impulse
B. Reflex
C. Synapse
D. Stimulus
E. Reaction

15. The ___ nervous system includes the brain, the spinal cord.
A. central
B. middle
C. autonomous
D. somatic
E. peripheral

16. The ___ nervous system includes the cranial nerves and spinal nerves.
A. central
B. middle
C. autonomous
D. somatic
E. peripheral

17. Inflammation of the nerve is___.
A. nephritis
B. meningitis
C. myelitis
D. neuritis
E. neurosis

18. The reflex ___ consists of five components: the receptor, the afferent pathway, the nervous center, the efferent pathway and the effector.
A. impulse
B. arc
C. way
D. kind
E. center

19. How many pairs of cranial nerves are there?
A.10
B. 30
C. 12
D. 20
E. 22

20. The outer layer of grey matter of the cerebrum is called ___.
A. sheet
B. envelope
C. membrane
D. clothes
E. cortex

21. What does the term "amaurosis" mean?
A. Absence of vision
B. Absence of feeling
C. Absence of hearing
D. Absence of scent
E. Absence of movement

22. What does the term "polio" mean?
A. Inflammation of nerves
B. Inflammation of the brain
C. Inflammation of the spinal cord
D. Inflammation of the vagus
E. Paraplegia

23. Our responses to stress are regulated by the nervous and ___ systems.
A. digestive
B. respiratory
C. reproductive
D. endocrine
E. lymphatic

24. ___ is a periodic resting condition of the body.
A. Pain
B. Stress
C. Insultus
D. Sleep
E. Meal

25. ___ is the lack of muscular coordination.
A. Aphasia
B. Ataxia
C. Epilepsy
D. Anosmia
E. Amnesia

26. What does the term "narcosis" mean?
A. Hypnotic condition
B. Artificial deep sleep
C. Action of drugs
D. Natural sleep
E. Coma

27. You can see with ___.
A. ears
B. nose
C. eyes
D. brain
E. fingers

28. The organ with which we can feel heat or cold, pain or touch is the ___.
A. heart
B. brain
C. nervous system
D. skin
E. eyes

29. We hear with ___.
A. eyes
B. skin
C. ears
D. nose
E. tongue

30. The tongue has receptors of ___.
A. vision
B. taste
C. pain
D. feeling
E. hearing

31. What does the term "otitis" mean?
A. Loss of hearing
B. Inflammation of the middle ear
C. Loss of vision
D. Disorder of balance
E. Inflammation of the skin

32. What doctor treats eye diseases?
A. Neurologist

B. Pathologist
C. Ophthalmologist
D. Gastrologist
E. Oculist

33. Deafness is ___.
A. absence of vision
B. loss of appetite
C. hunger
D. loss of hearing
E. loss of smell

34. Blindness is ___.
A. loss of vision
B. loss of smell
C. loss of balance
D. loss of hearing
E. loss of weight

35. How many parts does the ear have?
A. 2
B. 3
C. 4
D. 5
E. 1

36. What are the names of ossicles of the ear?
A. Stirrup and anvil, cochlea
B. Hammer and malleus, cochlea
C. Malleus, incus, stapes
D. Incus, stapes and cochlea
E. Anvil, hammer

37. What does not belong to taste?
A. Sweet
B. Sour
C. Bitter
D. Pain
E. Salty

38. You touched a hot iron with your fingers. What do you feel?
A. Pain
B. Thirst
C. Satisfaction
D. Joy
E. Horror

39. How do we call the system of perception?
A. Digestive
B. Reproductive
C. Nervous
D. Sensory
E. Integumentary

40. What covers the human body?
A. Hair
B. Nails
C. Skin
D. Glands
E. Sheet

41. What doesn't belong to the skin appendages?
A. Hair
B. Nails
C. Beard
D. Eyelashes
E. Sweat

42. Lesions of the skin are ___.
A. wounds
B. herpes
C. dermatitis
D. nails
E. rash on it

43. What is the main duty of the nurse who cares for bed patients?
A. To prevent diseases
B. To prevent decubitus ulcers
C. To feed the patients
D. To wash the patients
E. To help the patients to walk

44. What does the term "urticaria" mean?
A. Sunburn
B. Contagious disease
C. Allergic reaction
D. Eczema
E. Perspiration

45. What doctor treats diseases of the skin?
A. Narcologist
B. Dermatologist
C. Traumatologist
D. Urologist
E. Ophthalmologist

46. A rash on the child's skin appears suddenly. No other symptoms. Your action: ___.
A. To take the temperature
B. To consult a doctor
C. To give some medicine
D. To go for a walk with the child
E. To put iodine on the places of rash

47. What is the Greek equivalent of "skin"?
A. Cutis
B. Derma
C. Dermatitis
D. Tunica
E. Covering

48. The color of the skin depends on the pigment called ___.
A. sweat
B. oil
C. sunburn
D. melanine
E. milk

49. The main function of the mammary glands is ___.
A. to produce milk
B. to regulate the temperature
C. to form the figure
D. to protect the heart
E. All answers are right

50. What does the term "perspiration" mean?
A. Heat action
B. Secretion of sweat
C. Temperature condition
D. Secretion of waste products
E. Inflammation of the skin

II. Grammar Exercises

Exercise 1. Put the verbs in brackets into the correct form.

1. This doctor *(to read)* a newspaper now.
2. He *(to read)* newspapers every day.
3. They *(to make)* a new device last month.
4. They *(to make)* this device. You may see it.
5. The nurses *(to fulfill)* some prescriptions at present.
6. We *(to fill in)* the case histories today.
7. They *(to fill in)* many case histories yesterday.
8. The nurse *(to make)* an injection now.
9. The nurses *(to make)* injections every day.

Exercise 2. Put questions to a nurse filling the blanks with the necessary words.

1. What ... this patient's temperature?
2. ... you give him the drugs yesterday?
3. How ... times did ... give him these tablets?
4. Did you ... him mustard plasters on the back?
5. When ... you cup him last week?
6. ... you fulfill all the doctor's prescriptions every day?
7. Have an ophthalmologist ... him today?
8. What ... he say?

Exercise 3. Memorize the meanings of different modal verbs and verbs with modal meaning.

<table>
<tr><td colspan="2"><u>can</u>
могти, вміти</td><td colspan="2"><u>may</u>
могти, мати можливість</td><td colspan="2">must
мусити, бути повинним</td></tr>
<tr><td><u>should</u>
бути зобов'язаним (комусь), слід</td><td><u>would</u>
виражає бажання, ввічливе прохання</td><td colspan="2"><u>ought to</u>
бути зобов'язаним (комусь), слід</td><td>shall
бути повинним</td><td><u>will</u>
мати намір</td></tr>
<tr><td colspan="3"><u>need</u>
потребувати, бути зобов'язаним</td><td colspan="3"><u>dare</u>
сміти, наважуватися</td></tr>
</table>

Exercise 4. Translate into Ukrainian. Pay attention to the modal verbs and verbs with modal meaning.

1. Every student can list the signs of this disease.
2. You may carry on the experiment in the laboratory.
3. You must finish this translation not later than tomorrow.
4. This doctor ought to be more attentive to his patients.
5. You should work as much as possible.
6. Where shall he switch on this device?
7. We will help you tomorrow.
8. He tried to explain it, but we wouldn't listen to him.
9. You need to devote particular attention to this patient.
10. He dared test this device without permission.
11. I cannot understand why you should do it.
12. You ought not to have touched those devices.
13. You needn't do it.
14. Your documents might be received yesterday.
15. You could have finished your work in time if you had worked harder.

Exercise 5. Translate into English using modal verbs.

1. Ми можемо бачити очима, чути вухами, відчувати дотик кінчиками пальців. 2. Ці рецептори повинні бути у шкірі. 3. Ти розкажеш про сенсорну систему? 4. Твоя мама повинна проконсультуватися в офтальмолога негайно. 5. Він потребує огляду отоларинголога. 6. Можна я спочатку пройду огляд у невропатолога?

Exercise 6. Translate the sentences paying attention to the verbs *should/would*.

1. We should all be grateful to professor Petrenko for his valuable report. 2. There was a general recognition that bone tumors should be treated surgically. 3. Doctor Hryshchenko, would you kindly comment on this cure? 4. I should like to ask professor Nesterov what was found advisable in the treatment of this disease. 5. I'd like to write down the names of prominent specialists in heart surgery. 6. It would be difficult to separate this progress from the general achievements of the science.

III. Independent Work: Drugs

Exercise 1. Read the text. Translate it using the vocabulary below.

Drugs

Every human society uses some drugs to change people's state of **awareness**[1]. Drugs can mean everything from cigarettes and alcohol to heroin, opium, amphetamines, LSD and cocaine. In our society the main drugs are alcohol, nicotine and caffeine, while in Peru chewing cola leaves (which are used to produce cocaine) is an everyday activity, and in some Middle Eastern countries smoking hashish (marijuana) or opium is **legal**[2] while alcohol is **banned**[3]. Drugs which can **influence**[4] our state of **consciousness**[5] are known as psychoactive drugs.

All psychoactive drugs **affect**[6] the nervous system in some way, but they have different effects by influencing different parts of it. For example, caffeine, which we take in coffee or cola drinks, acts on the autonomic nervous system to produce a state of **arousal**[7] in the body. So it is not surprising that it helps people to wake up in the morning, but in large quantities it can make one **irritable**[8] and **edgy**[9].

Morphine and heroine are sometimes used medically, because they are powerful **painkillers**[10]. People who take the drugs report that they make them feel euphoric, as though they are not quite **in touch with**[11] that reality, and good because there is no physical discomfort or **fatigue**[12] at all. But the problem is that when it **wears off**[13], people feel very unpleasant, so it is extremely easy to become both physically and mentally **addicted**[14] to these drugs.

Marijuana was widely used as a **tranquillizer**[15] in the nineteenth century, and for over two thousand years in the Far East. We know that it acts as a mild depressant, **damping down**[16] the actions of the autonomic nervous system and producing muscular relaxation. Because of this some users **report**[17] a sense of time passing very slowly, and an increased **sensitivity**[18] to **sensory**[19] stimulation such as music or art.

Ecstasy, or MDMA, is a highly prosocial drug. In other words, it makes people feel **social**[20] and pleasant towards one another. It also enhances awareness of music and color. Ecstasy is often associated with rave music and huge discos, especially in Western Countries. It is interesting that MDMA was discovered in 1914 and was used in **marriage guidance counselling**[21], to ease the tension between people so that they could talk over their problems more effectively. In 1970s, however, it became popular as a **recreational**[22] drug, and has now been made illegal. The stimulant drugs known as amphetamines, or "speed", also sometimes seem to have a prosocial effect, at least in small doses. But in large doses, amphetamines can lead to **severe**[23] mental illness, known as amphetamine psychosis. This involves a **distortion**[24] of reality, the person often becomes extremely paranoid and **disturbed**[25]. Amphetamines are also highly addictive drugs.

Another well-known psychoactive drug is known as LSD, or sometimes as **"acid"**[26]. It is a **hallucinogen**[27], which means that people who take it can also experience hallucinations seeing things, which are not actually present.

Both natural and synthetic drugs can change our moods, our state of awareness and our **perception**[28] of reality. They can infect the system leading to **sores**[29], **jaundice**[30], **blood poisoning**[31] and AIDS disease. Many signs **indicate**[32] that a person is taking drugs, for example, sudden changes of mood, **irritability**[33], aggression, **loss**[34] of appetite, loss of interest in hobbies or friends, **insomnia**[35], **furtive behavior**[36], unusual **smells**[37], **stains**[38] on the body.

What pushes people to take drugs? There are many reasons. Some people turn to drugs to help relax and cope with the stress and problems of their lives. Some **experience**[39] many pressures at school, work, from parents, friends, they are not loved, frightened or **frustrated**[40]. Still others take drugs simply out of **curiosity**[41] but often become addicted. Some people want to make their experiences. Many people think that drugs are the best **way out**[42]. However they do not realize how **devastating**[43] and dangerous they are.

Notes:

[1] awareness [ə'wɛənəs] свідомість, усвідомлення (чогось)
[2] legal ['li:gl] легальний, законний
[3] banned [bænd] заборонений
[4] influence ['influəns] впливати
[5] consciousness ['kɒnʃəsnəs] свідомість
[6] affect [ə'fekt] мати вплив (на)
[7] arousal [ə'rauzel] стан збудження
[8] irritable ['iritəbl] дратівливий
[9] edgy ['edʒi] нервовий
[10] painkiller ['pein,kilə(r)] знеболюючий засіб, анальгетик
[11] in touch with — у контакті з ким-н.
[12] fatigue [fə'ti:g] втома
[13] wear off ['wɛə,ɔf] зникати, минати
[14] addicted [ə'diktid] залежний від (чогось, когось)
[15] tranquilliser ['træŋkwəlaizə] транквілізатор, заспокійливий
[16] damping down — знижуючи
[17] report [ri'pɔ:t] розповідати, доповідати
[18] sensitivity [,sensi'tivəti] чутливість, вразливість
[19] sensory ['sensəri] сенсорний
[20] social ['səuʃl] комунікабельний
[21] marriage guidance counselling — кваліфікована порада подружжю
[22] recreational [,rekri'eiʃənl] розважальний
[23] severe [si'viə] сияльний, суворий, інтенсивний
[24] distortion [dis'tɔ:ʃn] перекручення, спотворення (фактів тощо)
[25] disturbed [,dis'tɜ:bd] душевнохворий; занепокоєний
[26] acid ['æsid] кислота
[27] hallucinogen [,hælu:'sinədʒən] галюциноген
[28] perception [pə'sepʃn] сприйняття
[29] sore [sɔ:] болячка
[30] jaundice ['dʒɔ:ndis] гепатит (жовтяниця)
[31] blood poisoning ['blʌd,pɔizəniŋ] отруєння крові
[32] indicate ['indikeit] вказувати
[33] irritability [iritə'biliti] дратівливість
[34] loss [lɒs] втрата
[35] insomnia [in'sɒmniə] безсоння
[36] furtive behavior ['fɜ:tivbi'heivjə(r)] нервова або підозріла поведінка
[37] smell — запах
[38] stain [stein] пляма
[39] experience — переживати
[40] frustrated [frʌ'streitid] засмучений, прикро вражений
[41] curiosity [,kjuəri'ɒsəti] цікавість, допитливість
[42] way out [,wei'aut] вихід
[43] devastating ['devə,steitiŋ] руйнівний, спустошливий

Exercise 2. Are these statements true (T) or false (F) according to the text?

1. Drugs are banned in all countries of the world.
2. The effect of a drug depends on which part of the nervous system it influences.
3. Much coffee lets you come down.
4. Morphine is used to relieve pains.
5. Natural drugs are not dangerous.
6. If a person is irritable, aggressive and does not have any appetite, he or she is taking drugs.

Exercise 3. Look at the words and divide them into two groups: reasons for taking drugs and results of taking drugs.

Problems in school. The loss of a dear person. Sudden changes of mood. Frightening hallucinations. Everyday problems. The lack of understanding from others. Curiosity. Sleeplessness. Boredom. Nervousness. Stress.

Exercise 4. Match the words and their definitions.

to ban	a state of being awake and able to think
consciousness	nervous, easily upset or annoyed
curiosity	wanting to know about something
a system	an organism, a body
to infect	to say that something must stop or must not happen or be used
addictive	to give a disease to somebody
to experience	making one unable to stop taking drugs, alcohol
edgy	to feel something, to be faced with something

UNIT TWENTY-FOUR

I	**Speaking**	Endocrine System
II	**Grammar**	Conditional Sentences (§111)
III	**Independent Work**	Secretion

I. Speaking: Endocrine System

After careful study of this unit you should be able to:

– *compare the effects of the nervous system and the endocrine system in controlling the organism;*

– *describe the functions of hormones;*

– *list the endocrine glands;*

– *list the hormones produced by each endocrine gland and describe the effects of each on the body;*

– *explain the role of hypothalamus;*

– *tell about hormones and treatment.*

Exercise 1. Read and learn the following words and their equivalents.

English	Latin/Greek	Ukrainian
gland ['glænd]	glandula/adēn	залоза
endocrine ['endoʊkrain]	endocrinus	ендокринний
pituitary [pi'tju:itri] gland (hypophysis)	hypophysis (glandula pituitaria)	гіпофіз (мозковий придаток)
pineal ['piniəl] gland	glandula pinealis	шишкоподібна залоза

English	Latin/Greek	Ukrainian
thyroid [ˈθairɔid] gland	glandula thyroidea	щитоподібна залоза
parathyroid glands	glandulae parathyroideae	прищитовидні залози
superior [sjʊˈpiəriə]	superioris	верхній
inferior [inˈfiəriə]	inferioris	нижній
thymus [ˈθaiməs] gland	thymus	загрудинна залоза
pancreas	pancreas	підшлункова залоза
adrenal [ædˈri:nəl]	glandula adrenalis	надниркова залоза
gonads [ˈgəʊnædz]		статеві залози
ovary [ˈəʊvəri]	ovarium/oophor-	яєчник
testis [ˈtestis]	testis/orchi-, didym-	яєчко
prostate [ˈprosteit]	prostata	передміхурова залоза
mammary gland	glandula mammaria/mast-	молочна залоза
mucous [ˈmjʊkəs]	glandulae mucosae	слизовий
salivary [ˈsælivəri]	glandulae salivariae	слинний
lacrimal [ˈlækriməl]	glandulae lacrimales	слізний
sweat	sudorum/hidr-	піт
hormone [ˈhɔ:məʊn]	hormonum	гормон

Exercise 2. Learn the names of the pituitary hormones.

– Somatotropin [ˌsəʊmətəʊˈtrəʊpin], or growth hormone (GH) – соматотропін, гормон росту;

– thyrotropin [ˌθairəʊˈtrəʊpin], or thyroid-stimulating hormone (TSH) – тиреотропін, стимулює вироблення гормонів щитовидної залози;

– adrenocorticotropic [æˌdri:nəʊˌkɔ:tikəʊˈtrɒpik] hormone (ACTH) — адренокортикотропін, стимулює кіркову частину надниркових залоз;

– follicle-stimulating hormone (FSH) – фолітропін, стимулює розвиток яйцеклітини у яєчниках і сперматозоїдів у яєчках;

– luteinizing [ˈlu:tiiˌnaiziŋ] hormone (LH) – лютеїнізувальний гормон, спричинює овуляцію у жінок і виділення статевих гормонів у жінок і чоловіків;

– antidiuretic [ˌænti ˌdaijʊˈretik] hormone (ADH) – антидіуретичний гормон, допомогає відділенню і виділенню води з нирок;

– oxytocin [ˌɒksiˈtəʊsin] – окситоцин, спричинює скорочення м'язів матки і виділення молока з молочних залоз.

Exercise 3. Read and translate the following information, title it.

The nervous system and the endocrine system are two main controlling and coordinating systems of the body.

The nervous system controls muscle movement and intestinal activity by means of electric and chemical stimuli. So, it controls rapid activities.

The effects of the endocrine system occur more slowly and over a long period of time. The endocrine glands produce chemical messengers, hormones, which have widespread effects.

These two systems are closely connected, because the activity of the pituitary gland is controlled by the nervous system.

Exercise 4. Look at Fig. 24–1 and name all the endocrine glands of males and females.

Exercise 5. Read the text.

Endocrine Glands

Endocrine glands, or glands of internal secretion, are glands without excretory ducts. They produce special substances called hormones, which are secreted directly into the blood. The hormones are carried throughout the organism with the blood and delivered to various organs whose activity they either stimulate or depress.

Hormones play a very important part in the organism. Many of them affect metabolism and the functioning of the cardiovascular, reproductive, and other systems. A disturbance in the activity of the endocrine glands is accompanied by changes throughout the organism. These changes may be due to an increase in the function of a gland (hyperfunction) or a decrease (hypofunction).

The chemical composition of some hormones is well known. Various hormonal preparations are made synthetically or from the corresponding glands of animals (endocrine preparations). They are widely used in medicine. It should be noted that hormones are substances with very high biological activity.

The endocrine glands include the hypophysis (or pituitary), the epiphysis cerebri (or pineal), the thyroid, the parathyroids, the thymus, the islet part of the pancreas, the adrenals and the incretory part of the sex glands. Each gland consists of glandular epithelial tissue and has an extensive network of blood vessels and large number of nerve fibers (from the vegetative nervous system).

The functions of all endocrine glands are interconnected, and the glands make up a single system. The hypophysis is the chief gland of this system: it produces special substances which stimulate the activities of the other endocrine glands.

The influence of various substances (mainly hormones) acting on the organism through the blood is called humoral regulation.

The activities of endocrine glands are regulated by the nervous system. The nervous system exercises direct control over the endocrine glands through the nervous and neurohumoral control, particularly through the hypophysis. The hormones in their turn affect the functions of different parts of the nervous system.

Exercise 6. Make up a plan of the text and retell it.

Exercise 7. Complete and translate the sentences.

– Гормони переносяться по організму кров'ю ...

– Порушення в роботі залоз внутрішньої секреції супроводжується змінами у всьому організмі ...

– Різні гормональні препарати виготовляються синтетично ...
– Функції всіх ендокринних залоз взаємозв'язані ...
– Робота залоз внутрішньої секреції регулюється нервовою системою ...

Exercise 8. Answer the questions.
– Where are hormones secreted?
– What is the role of hormones?
– How are hormones made?

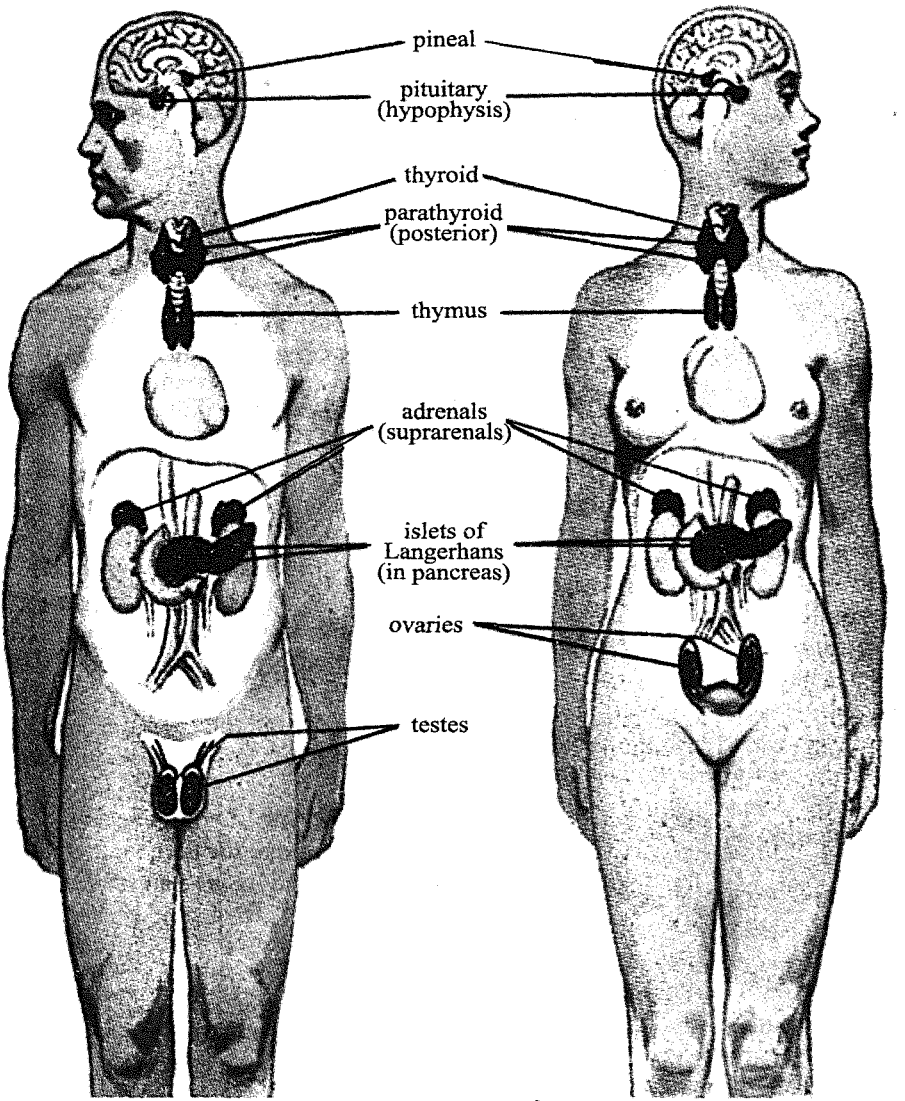


Fig. 24–1. Endocrine glands

– What are the parts of the endocrine system?
– What is humoral regulation?

Exercise 9. Read and translate the names of different diseases caused by abnormal activity of the endocrine glands.

Goiter (зоб), the enlarged thyroid.

Hyperthyroidism (гіпертиреоз), produces exophthalmic goiter, it leads to loss of weight, nervousness, a rapid pulse, protrusion of the eyes, sweating.

Hyperthyroidism causes cretinism or myxedema because of failure of the thyroid gland.

Hypoparathyroidism causes hypocalcemia. It can lead to tetany (['tɛtəni] – правець).

Addison's disease is caused by failure of the adrenal glands. It is characterized by weight loss, weakness, low blood pressure, brownish pigmentation of the skin, hypoglycemia.

Diabetes insipidus (нецукровий діабет) is characterized by the heavy discharge of urine (polyuria) and intense thirst (polydipsia).

Diabetes mellitus (цукровий діабет), deficiency of insulin prevents sugar from leaving the blood, so it is characterized by excess of sugar in the urine; hunger, thirst and quick loss of weight.

Hyperinsulinism is the excessive secretion of insulin from the pancreas. The patients may be convulsing and fainting.

Control Tests. Endocrine System. Cell. Physiological Functions of the Organism

1. What substances are produced by endocrine glands?
   A. Enzymes
   B. Hormones
   C. Proteins
   D. Vitamins
   E. Glucose

2. How do we call the system of glands?
   A. Lymphatic
   B. Circulatory
   C. Independent
   D. Endocrine
   E. Exocrine

3. What glands are not endocrine?
   A. Hypophisis
   B. Hypothalamus
   C. Epiphysis
   D. Thymus
   E. Sweat

4. What is the English for *щитовидна залоза*?
   A. Adrenal gland
   B. Pituitary gland
   C. Pineal gland
   D. Thyroid gland
   E. Pancreas

5. What glands are situated above the kidneys?
   A. Sex
   B. Parathyroid
   C. Adrenal
   D. Thyroid
   E. Thymus

6. What does the endocrine system consist of?
   A. Reproductive organs
   B. Glands of internal secretion
   C. Glands of external secretion
   D. Glands of mixed secretion
   E. All glands of the body

7. What gland is the regulating center of all glands?
   A. Hypophysis

B. Hypothalamus
C. Thymus
D. Epiphysis
E. Encephalon

8. What disease belongs to diseases of the endocrine system?
A. Myocarditis
B. Cholecystitis
C. Bronchitis
D. Diabetes
E. Pneumonia

9. What medicine is used in the treatment of diabetes mellitus?
A. Glucose
B. Diasoline
C. Insulin
D. Analgin
E. Dimedrol

10. What hormones are produced by the female sex glands?
A. Corglycoids
B. Thyroidin
C. Estrogen
D. Testosterone
E. Adrenaline

11. What are the main functions of hormones?
A. Excretion and metabolism
B. Development and growth
C. Growth, development and metabolism
D. Excretion and growth
E. Metabolism and immunity

12. Where is the thyroid gland situated?
A. Under the heart
B. In the front part of the neck
C. In the back part of the neck
D. In the left side of the chest
E. In the right side of the chest

13. What is another name of the epiphysis?
A. Pineal
B. Pituitary
C. Adrenal
D. Ovary
E. Testis

14. What part of the pancreas is endocrine?
A. Left
B. Right
C. Islets
D. Middle
E. Central

15. What is the English for *надниpники*?
A. Epiphysis
B. Pituitary
C. Hypophysis
D. Adrenals
E. Parathyroids

16. ___ stimulate the growth of the female sex organs.
A. Androgens
B. Testosterone
C. Adrenaline
D. Sex hormones
E. Estrogens

17. The sex glands in males are ___.
A. Prostate
B. Ovary
C. Testes
D. All answers are right
E. All answers are wrong

18. The sensitive part of the penis is ___.
A. the middle part
B. the glans
C. the prepuce
D. All the penis
E. No right answer

19. Progesterone is produced in the ___.
A. uterus

B. ovary
C. placenta
D. corpus luteum
E. follicle

20. The inlarged thyroid is ___.
A. Addison's disease
B. myxedema
C. tetany
D. goiter
E. cretinism

21. What does the term *polydipsia* mean?
A. Intense hunger
B. Intense thirst
C. Loss of blood
D. Anemia
E. Intense secretion

22. The functions of all endocrine glands are interconnected and the glands make up ___.
A. an organism
B. a single system
C. blood circulation
D. different things
E. control over the organism

23. The hormones are carried throughout the organism with ___.
A. water
B. lymph
C. urine
D. gall
E. blood

24. The hypophysis is the chief ___ of the endocrine system.
A. gland
B. brain
C. cell
D. organ
E. receptor

25. The ___ composition of some hormones is well known and they are made synthetically.
A. simple
B. various
C. chemical
D. mechanical
E. physical

26. Without that substance our organism cannot be.
A. Alcohol
B. Nicotine
C. Water
D. Beer
E. Spirit

27. What isn't harmful to your health?
A. Cigarettes
B. Alcohol
C. Water
D. Nicotine
E. Spirit

28. We breath with ___.
A. water
B. nitrogen
C. oxygen
D. hydrogen
E. air

29. Physiology studies ___ of the body.
A. the structure
B. the functions
C. the growth
D. the weight
E. the reproduction

30. The exchange of substances in the organism is called ___.
A. heat action
B. metabolism
C. water balance
D. immunity
E. nutrition

31. What does the term *myoma* mean?
A. Muscle tumor
B. Bone tumor
C. Skin tumor
D. Malignant tumor
E. Benign tumor

32. What does the term *chondroma* mean?
A. Tumor of the muscle
B. Tumor of the uterus
C. Tumor of the heart
D. Tumor of the cartilage
E. Tumor of the joint

33. What doesn't describe a kind of disease?
A. Chronic
B. Acute
C. Mortal
D. Infection
E. Good

34. This science studies body cells.
A. Pathology
B. Etiology
C. Biology
D. Physiology
E. Cytology

35. The breakdown of nutrients or complex substances into simpler ones is called ___.
A. Metabolism
B. Botulism
C. Anabolism
D. Catabolism
E. Organism

36. ___ is the building of body materials.
A. metabolism
B. botulism
C. anabolism
D. catabolism
E. organism

37. What is the structural unit of the living matter?
A. Cell
B. Tissue
C. Organ
D. System
E. Organism

38. What is there in the center of each cell?
A. Ribosome
B. Lysosome
C. Centriole
D. Cytoplasm
E. Nucleus

39. What does the term *mitosis* mean?
A. Cell activity
B. Cell division
C. Cell nutrition
D. Cell structure
E. Cell membrane

40. What do we call the scientist who studies all about tissues?
A. Histologist
B. Epidemiologist
C. Bacteriologist
D. Cytologist
E. Embryologist

41. The study of the cause of any disease or the theory of its origin is ___.
A. biology
B. pathology
C. etiology
D. microbiology
E. chemistry

42. Vitamin ___ prevents scurvy.
A. A
B. B
C. C
D. D
E. E

43. Vitamin ___ deficiency leads to infertility.
A. A
B. B
C. C
D. D
E. E

44. Vitamin ___ prevents rickets.
A. A
B. B
C. C
D. D
E. E

45. What vitamin is soluble in water?
A. A
B. B
C. K
D. D
E. E

46. What is avitaminosis?
A. Deficiency of any vitamin
B. Increased quontity of vitamins
C. Normal quontity of vitamins
D. Presence of vitamins
E. Absence of vitamins

47. The ___ excretes bile.
A. stomach
B. intestine
C. kidney
D. liver
E. gland

48. The ___ carries oxygen round the body.
A. lymph
B. urine
C. water
D. vessel
E. blood

49. Where do we usually take our temperature?
A. In the oral cavity
B. In the armpit
C. In the anus
D. On the neck
E. In the groin

50. Where do we usually take our pulse?
A. On the wrist
B. On the neck
C. In the armpit
D. In the groin
E. Under the knee

II. Grammar Exercises

Exercise 1. Read and translate the words, pay attention to the suffixes and prefixes.

Acupuncture, compatible, harmful, merely, selection, to simplify, invaluable, effectiveness, intention, possibility, scientifically, numbness, decomposition, irregularity, consciousness, regeneration, deafness, reformation.

Exercise 2. What are the Ukrainian equivalents of the English proverbs?

1. A sound mind in a sound body.
2. Blood is thicker than water.
3. Don't trouble trouble till trouble troubles you.

Exercise 3. Fill in the blanks with the verbs *to treat, to discuss, to build* in the correct form.

1. A dermatologist ... skin diseases.
2. Skin diseases ... by a dermatologist.

3. We ... this problem yesterday.
4. New problem ... by them last year.
5. New hospitals ... in many cities next year.
6. They ... some new schools next five years.

Exercise 4. Translate the sentences, pay attention to the sequence of tenses.

1. That patient believed that the doctor would suggest an operation. 2. The doctor said that he made the morning round every day. 3. We knew that he was ill. 4. He said that he could finish his work in time. 5. All the students knew that they had to revise for the examinations. 6. He showed me which exercises he had done.

Exercise 5. Translate the sentences with modal verbs and verbs with modal meaning.

1. This doctor ought to be more attentive. 2. He needn't hurry. 3. All our students must work at the hospital. 4. They needn't do it. 5. We have to be ready to fulfill this task. 6. I think you should go out for a walk every evening. 7. What does he have to do next? 8. What has she got to do next? 9. We are to meet them there. 10. This woman has to stay at home with her sick baby. 11. He mustn't go out in the street. 12. We ought to help this nurse.

Exercise 6. Change the following sentences according to the model.

Model: *If we changed the temperature, the reaction would change too. – If we had changed the temperature, the reaction would have changed too.*

1. If this were the case, he might expect an unusual effect. 2. Unless some studies were available, the drug couldn't be applied. 3. Providing doctors prevented heart attacks, the patient would live longer. 4. If the nurses were given up-to-date apparatus, they would prevent many fatal cases. 5. If every effort of organ transplants could be made, patients might be able to survive.

Exercise 7. Translate the conditional sentences.

1. If additional studies had been carried on, they might have determined the precise role of protein. 2. Overweight people are in even greater danger if they go on and off their diets, losing and gaining weight. 3. If we read much, we will know much. 4. If you read many medical books, you would know much about new techniques. 5. If I had time, I would read all the articles of this professor.

Exercise 8. Translate into English.

1. Якби в мене був час, я зробив би цю роботу вчора. 2. Якби ви читали багато, то й знали б багато. 3. Якщо ми будемо багато читати, то й знатимемо багато. 4. Якби йому не допомогали друзі, він не закінчив би роботу вчасно. 5. Якби вони були тут, ми обговорили б це питання.

III. Independent Work: Secretion

Exercise 1. Read the text; try to understand it without using a dictionary.

Secretion

Secretion is a process generally brought about by an organ called a gland. A gland whether simple or highly complex in structure may be looked upon as a tube, whose walls are composed of highly specialized epithelial cells, gland cells. The tube is closed at one end. In many glands the other end of the lumen opens up, either directly or by means of a special duct, onto a free surface, such as the skin, the interior of the mouth, the lumen of the intestine, etc. The materials produced by the gland are poured onto this free surface, for which reason the secretion of this type of gland is spoken as an external secretion. The gland is surrounded by a dense network of capillaries.

The distinct process may take place in a gland: the gland cell serves merely as a transfer agency, or it acts as a manufacturing plant or both. In the first instance, certain materials, water and NaCl are taken out of the blood stream by the gland cell, transferred through the cell, passed into the duct or lumen, and secreted on a free surface. All types of glands transfer water in this manner. Some glands, e.g. the sweat glands, practically limit their activity to this.

Other glands take certain materials out of the blood stream and chemically transform them into new compounds which together with water and salts are then poured into the duct.

The activity of a gland is normally accompanied by a great dilation of its blood vessels, without this increased flow of blood a gland cannot function for any appreciable length of time. Nevertheless in many instances its blood flow in itself is not the direct cause of secretion, for by administering certain drugs (e.g. atropine) it is possible to stop the secretion completely although the flow of blood continues. Secretion by the digestive glands is to be regarded as an active phenomenon, and not merely a passive filtration.

Exercise 2. Make up a short plan of the text. Retell the text according to your plan.

Exercise 3. Arrange the sentences in the right order (as in the text).

1. Some glands practically limit their activity to this.
2. The activity of a gland is normally accompanied by a great dilation of its blood vessels.
3. A gland ... may be looked upon as a tube ...
4. Secretion by the digestive glands is to be regarded as an active phenomenon ...
5. ... the gland cell serves merely as a transfer agency ...

UNIT TWENTY-FIVE UNIT TWENTY-FIVE

I	**Speaking**	Urinary System
II	**Grammar**	Subjunctive Mood (§112)
III	**Independent Work**	Organism as a Whole

I. Speaking: Urinary System

After careful study of this unit you should be able to:

– *list the systems that eliminate waste products and substances eliminated by them;*
– *name parts of the urinary system and their functions;*
– *describe a nephron;*
– *name the normal and abnormal constituents of the urine;*
– *list disorders of the urinary system.*

Exercise 1. Read and learn the following words and their equivalents.

English	Latin/Greek	Ukrainian
urinary [ˈjuərinəri]	urinaria	сечовий
urine [ˈjuərin]	urina/ur(o)-	сеча
kidney	ren/nephr(os)	нирка
urinary bladder	vesica urinaria/cyst-	сечовий міхур
renal pelvis	pelvis renalis/pyelo-	ниркова миска
margin [ˈmɑ:dʒin]	margo	край
fatty capsule [ˈkæpsju:l]	capsula adiposa	жирова капсула
segments [ˈsegmənts]	segmenta	сегменти
tubules [ˈtju:bju:ls]	tubuli	канальці
renal cortex	cortex renalis	ниркова кора
medulla of kidneys	medulla renalis	нирковий мозок
glomerular [ˌgləuˈmerulə]	glomerularis	клубочковий
glomeruli [ˌgləuˈmerulai]	glomeruli	гломерули (клубочки)
renal arteries	arteriae renalis	артерії нирки
veins of kidneys	venae renalis	вени нирки
ureter [juˈri:tə]	ureter	сечовід
urethra [juˈri:θrə]	urethra	сечівник
female [ˈfi:meil]	femininus	жіночий
male	masculinus	чоловічий
dialysis [daiˈælisis]	dialysis	діаліз
excretion [iksˈkri:ʃn]	excretio	виділення
hemodialysis	haemodialysis	гемодіаліз
nephron [ˈnefrɒn]	nephron	нефрон

English	Latin/Greek	Ukrainian
urea [ˈjuəriə]	urea	сечовина
nitrogen [ˈnaitrədʒən]	Nitrogenium	азот
ammonia [əˈməunjə]	Ammonium	аміак
diuresis [ˌdaijuˈri:sis]	diuresis	діурез (виділення сечі)
micturition [ˌmiktjəˈriʃn]	micturitio	сечовипускання
ketone bodies	Cal(cium)+(ace)tone	кетонові тільця

Exercise 2. Learn the pronunciation of the following clinical terms.

glomerulonephritis [glo,mərʊləʊniˈfraitis]
pyelonephritis [ˌpaiələʊniˈfraitis]
hydronephrosis [ˌhaidrəʊniˈfrəʊsis]
renal falure [ˈfeiljə]
uremia [ju:əˈri:miə]
polycystic kidney [ˌpɒliˈsistik]
calculi [ˈkælkju:ˌlai], kidney stones
strictures [ˈstrikʧəz]
ptosis [ˈtəʊsis]
renal colic [ˈkɒlik]
cystitis [sisˈtaitis]
urethritis [ˌjʊəriˈθraitis]
enuresis [ˌenjʊˈri:sis]

Exercise 3. Read the texts, translate them and retell.

Text A. ***Urinary System***

The urinary system is also called the excretory system, because one of its main functions is to remove waste products from the blood and eliminate them from the body. The other functions are:

– to regulate the volume of the body fluids;
– to balance the pH;
– to balance the electrolyte compositions of the body fluids.

But other systems also eliminate wastes. For example, the digestive system eliminates undigested food, water, salts and bile. The respiratory system eliminates carbon dioxide and water. The skin eliminates water, salts, nitrogen waste.

The urinary system includes the kidneys, right and left; two ureters – long tubes, which lead to the lower part of the urinary bladder; the urinary bladder, which is a hollow sac for temporary collection of the urine; and the urethra – the tube, through which the urine is discharged from the bladder and passes out of the body.

Text B. ***Kidneys***

The kidneys are considered to be the main organs of the urinary system. They are two in number, right and left. The kidneys are bean-shaped organs embedded in a cushion of adipose

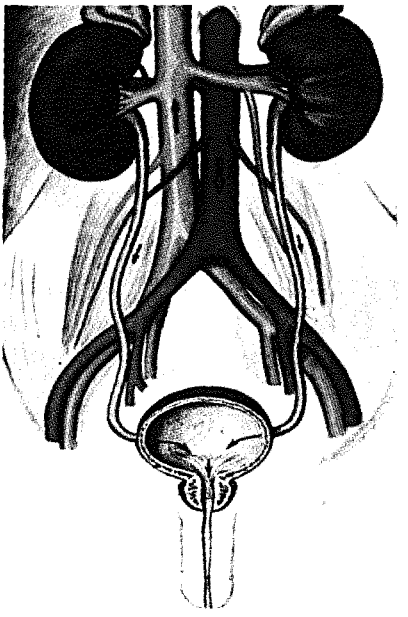


Fig. 25–1. The urinary system

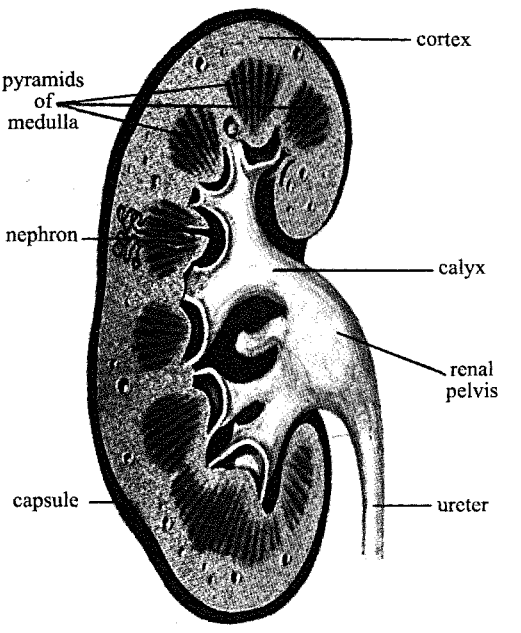


Fig. 25–2. The kidney

tissue and located behind the abdominal cavity. They consist of outer cortex part, inner medullar part, and pelvis. The kidneys can be compared with filters, as they perform the filtration of waste products from the blood.

These waste products go to the kidney through the renal arteries, rather short and thick vessels.

The location of the urinary organs and their blood supply can be seen in Fig. 25–1.

The kidney is an organ about 10 cm long, 5 cm wide, and 2.5 cm thick. On the inner margin there is the hilus (ворота), at which the renal artery and vein, and the ureter connect with the kidney. The renal cortex covers the kidney. The renal medulla contains the tubules that collect urine. These tubules form pyramids with the tips toward the renal pelvis. The renal pelvis is a funnel-shaped basin that forms the upper part of the ureter. Calyx ['kæliks] is a cuplike extension which surrounds the tip of pyramids and collect urine, which then passes down the ureter and bladder (Fig. 25–2).

Text C. ***Nephrons***

The nephron is the smallest unit of the kidney. It is a tiny coiled tube with a bulb [bʌlb] at one end. This bulb is called Bowman's capsule (капсула Боумена), which surrounds the glomerulus. Each kidney contains about 1 million nephrons. The afferent artetiole supplies the glomerulus with blood; the efferent arteriole carries blood from the glomerulus. (The detailed structure of the nephron can be seen in Fig. 25–3.)

The process of filtration and formation of the urine takes place within the tiny tubules of the kidneys.

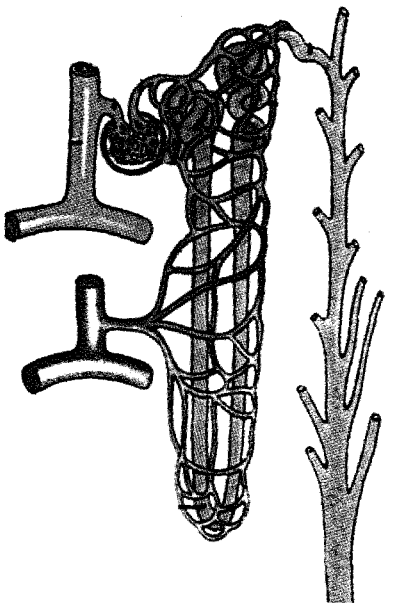


Fig. 25–3. The nephron

Text D. ***Functions of Kidneys***

The kidneys are involved in the following processes:

1. Excretion of unwanted substances such as waste products from cell metabolism, excess salts, and toxins.
2. Maintenance of water balance.
3. Regulation of acid-base balance.
4. Production of hormones:

– **renin** [ˈri:nin], which is important in the regulation of blood pressure;

– **erythropoietin** [iˌriθrəʊpɔiˈi:tin], which stimulates the red bone marrow to produce red blood cells and thus prevents anemia.

Text E. ***Urine***

The urine is a yellowish liquid that is about 95 per cent water and 5 per cent dissolved solids and gases. The amount of these dissolved elements is indicated by specific gravity. The urine has a specific gravity that normally varies from 1002 (very dilute urine) to 1040 (very concentrated urine). The normal substances, found during the test of the urine, are nitrogenous waste products, electrolytes, and yellow pigment.

Urine examination is one of the most important parts of an evaluation of a person's physical state. Here is a list of the most significant abnormal substances found in the urine:

1. *Glucose* (an indicator of diabetes mellitus). The presence of glucose in the urine is called **glucosuria**.
2. *Albumin* (indicates a kidney disorder). The presence of albumin in the urine is called **albuminuria**.
3. *Blood* (indicates nephritis or other urinary disorder). The blood in the urine is called **hematuria**.
4. *Ketones* are seen in diabetes mellitus or starvation.
5. *Pus* [pʌs] (гній), white blood cells, is the evidence of infection. Pus in the urine is called **pyuria**.
6. Casts [kɑ:sts] (циліндри) indicate disease of nephrons.

Exercise 4. Read the meaning of the following clinical terms and answer the question: what is each of the disorders characterized by?

Glomerulonephritis – inflammation of the kidneys, primarily involving the glomerula; this disease causes destruction of the glomerular capillary walls; the complications are renal failure, retention of urea in the bloodstream (uremia).

Hydronephrosis – enlargement and distention (swelling) of the kidney due to block of urine outflow, caused by renal calculi, tumors, hypertrophy of prostate or narrowing (stricture) of the ureters.

Pyelitis – inflammation of a kidney pelvis.

Nephrolithiasis – the formation of renal calculi (stones) in the renal pelvis, which is followed by obstruction of the kidney, ureter, or bladder.

Pyelonephritis – bacterial infection of one or both kidneys usually involving both the pelvis and the functional tissue. Pyuria is found in urinalyses.

Polycystic kidney – the formation of numerous fluid-filled sacs upon and within the kidney.

Gout – a disease resulting from a disturbance of uric acid metabolism, characterized by an excess of uric acid in the blood and deposits of uric acid salts in various tissues, especially in the joints of the feet and hands: it causes swelling and severe pain, notably in the big toes.

Exercise 5. Tell about the body systems that have excretory functions.

Exercise 6. Describe the kidneys using this plan.

1. Location.
2. Form.
3. Structure.
4. Functions.

Exercise 7. Describe the nephron, use Fig. 25–3.

Exercise 8. Answer the following questions.

1. What are the functions of the urinary system?
2. What organs does the urinary system include?
3. How many parts does the kidney consist of?
4. What is the difference between the afferent and efferent arterioles?
5. What are pyramids and calyces in the kidney?
6. What is the unit of the kidney?
7. Where does the process of filtration and formation of the urine take place?
8. What is the characteristic of the urine?
9. What do we understand under the normal urine? Abnormal urine?
10. What disorders of the urinary system do you know?

II. Grammar Exercises

Exercise 1. Point out the suffixes and prefixes in the words and translate them into Ukrainian.

Experimental, transplantation, organic, inorganic, coagulation, miniature, metabolic, personally, mechanical, experiment, radioactivity, function, clinical, motherhood, leadership, capitalist, freedom, treatment, scientific, pressure, carelessness, infection, director, construction.

Exercise 2. Translate the following clinical terms.

Epidemics, asthma, sclerosis, pneumonia, bronchopneumonia, pathology, pulmonologist, urgent, allergy, infection, traumatism.

Exercise 3. Remember the degrees of comparison of adjectives, translate the following sentences.

1. The earlier the diagnosis, the greater likelihood of cure. 2. The smaller the loss, the quicker the patient recovers. 3. The more primitive organism, the greater its regeneration ability. 4. The sooner the patient is operated on, the better for him. 5. The larger the heart, the lower the position which it occupies in the thorax. 6. The more fresh air, the better for patients.

Exercise 4. Define participial and gerundial complexes, translate the sentences into Ukrainian.

1. Being very tired, he refused to fulfill this task. 2. By entering the brain or spinal cord, neurosurgeons are successfully doing away with disorders. 3. He proposed methods of applying local novocaine anesthesia during operations. 4. This man was discharged from the hospital completely cured, having stayed there 20 days. 5. The doctor examining the patient revealed his heart trouble. 6. They have learned the methods of examining a patient. 7. The examination of the patients having been completed, the nurses began to fulfill the doctor's prescriptions. 8. The doctor having used a new method of treatment was known to us.

Exercise 5. Complete the following sentences.

1. I should have missed the lecture if ...
2. If I were you ...
3. If my mother were a teacher ...
4. If I had money about me ...
5. If we had spare time ...
6. If it had been warm yesterday ...

Exercise 6. Make up sentences using the tables.

a)

If I were you,	I	go for a walk.
But for him	he	travel to the Crimea.
But for them	you	stay in bed.
	they	consult a doctor.
	we	visit a good specialist.

b)

	I		I		prescribe other drugs.
	you		you		go to the urologist.
If	she	were you,	she	should/would	give another treatment.
	we		we		become a surgeon.
	they		they		give another diagnosis.

Exercise 7. Translate into English.

1. На вашому місці я негайно звернувся б до уролога. 2. Якби в мене були гроші, я придбав би цей фонендоскоп. 3. Якби мій брат вмів плавати, ми ходили б у басейн щодня. 4. Я запізнився б на засідання, якби не взяв таксі. 5. Якби в мене був час минулого тижня, я поїхав би на екскурсію до Львова.

III. Independent Work: Organism as a Whole

Exercise 1. Read the text and try to understand it without using a dictionary.

Organism as a Whole

The organism is a single system. In a complex organism cells and intercellular substance form tissues, tissues make up organs, and organs unite in systems. All the cells, tissues, organs and systems of organs are closely interconnected and affect each other.

The vital activities of the cells, tissues, organs and the whole organism are based on metabolism which consists of two interconnected processes: assimilation of nutritive substances (anabolism) and decomposition of organic substances (catabolism).

The complex substances of the cells and tissues continuously split into simpler ones: at the same time they are renewed from other substances delivered to the cells and tissues from outside. The catabolism in the cells and tissues is accompanied by liberation of energy which operates all the processes in the organs and tissues (muscular contraction, heart action, cerebral activity, etc.) including anabolism.

During the vital activities of the organism, which are based on metabolism, various organs and systems of organs establish close connections and interactions. This may be readily demonstrated on a skeletal muscle. Metabolism takes place in the muscle, as it does in other organs. This naturally requires a continuous supply of nutrients and oxygen which are delivered by the blood through the blood vessels. The nutrients enter the blood from the digestive system, and the oxygen from the respiratory system (through the lungs). The waste products formed in the process of metabolism pass from the muscles into the blood and are transported to the excretory organs and eliminated. The blood flows through the blood vessels because of the contractions of the heart whose work, like that of other organs, is regulated by the nervous system.

The regulations between the various systems of organs can also be demonstrated by coordinated changes in their activities. Intensification of the activity of one organ or system of organs is accompanied by changes in the other system. For example, physical work causes metabolism to increase sharply in the muscles.

This leads to a coordinated change in the activity of the cardiovascular, respiratory, excretory and other systems.

The interdependence between the various organs and the entire organism manifests itself in a disease. Pathologic changes in one particular organ affect other systems of organs. The principle of intergrity of the organism implies that the disease of any organ must not be regarded as a purely local disturbance, but as a morbid state of the entire organism.

Exercise 2. Ask 10 questions based on the text.

UNIT TWENTY-SIX

I	**Speaking**	Female Reproductive System
II	**Grammar**	Conjuction (§113)
III	**Independent Work**	Mother and Child Health

I. Speaking: Female Reproductive System

After careful study of this unit you should be able to:
- *name the female reproductive organs;*
- *state the purpose of meiosis;*
- *name female sex hormones;*
- *define the menstrual cycle;*
- *list disorders of the female reproductive organs;*
- *describe fertilization;*
- *explain the function of the placenta;*
- *briefly describe the four stages of labor (childbirth);*
- *tell about menopause.*

Exercise 1. Read and learn the following words and their equivalents.

English	Latin/Greek	Ukrainian
ovary [ˈəʊvəri]	ovarium/oophor-	яєчник
follicle [ˈfɒlikl]	folliculus	фолікул
uterine tube [ˈju:tərain]	tuba uterina	маткова труба
uterus [ˈju:tərəs]	uterus/metr-, hyster-	матка
ovum [ˈəʊvəm] (pl. ova)	ovum, ova	яйцеклітина
corpus luteum [ˈlu:tiəm]	corpus luteum	жовте тіло
vagina [vəˈʤainə]	vagina/colp(o)-	піхва
epoophoron [ˌepɒˈɔ:fərɒn]	epoophoron	над'яєчник
paroophoron [ˌparɒˈɔ:fərɒn]	paroophoron	прияєчник
clitoris [ˈklitəris]	clitoris	клітор
perineum [ˌperiˈni:əm]	perineum	промежина
external genital [ˈʤenitəl] female organs (vulva)[ˈvʌlvə]	organa genitalia feminina externa, vulva/episio-	зовнішні статеві органи жінки
embryo [ˈembriəʊ]	embryon	зародок
fetus [ˈfi:təs]	fetus	плід
fertilization [ˌfɜ:tilaiˈzeiʃn]	fertilizatio	запліднення
breasts [ˈbrests]	mammae/mast-	молочні залози
the neck of uterus	collum uteri	шийка матки
endometrium [ˌendəʊˈmi:triəm]	endometrium	внутрішня слизова оболонка матки, ендометрій

English	Latin/Greek	Ukrainian
menstruation	mensis	менструація
placenta	placenta	плацента
menopause [ˈmenəʊpɔːz]	menopausa	менопауза
abortion [æˈbɔːʃn]	abortus	викидень
labor [ˈleibə], delivery	partus	пологи
pregnancy [ˈpregnənsi]	graviditas	вагітність

Exercise 2. Learn the following clinical terms.

Leukorrhea [ˌluːkəˈriːə] is a white or yellowish vaginal discharge, sign of irritation or infection.

Amenorrhea [æˌmənəˈriːə] is the absense of menstrual flow.

Dismenorrhea [disˌmənəˈriə] is painful or difficult menstruation.

Cancer of breasts, cancer of endometrium, cancer of ovaries, cancer of cervix are common ***malignant tumors*** of the female reproductive organs.

The ***infectious diseases*** of the female sex organs are salpingitis (inflammation of the uterine tubes); pelvic inflammatory disease (PID) may be caused by gonorrhea or bacteria; toxic shock syndrome (TSS) is a serious bacterial infection usually due to certain staphylococci.

Infertility [ˌinfɜːˈtiləti] is the decreased ability to reproduce. Infertility in women, as it is in men, may be relative or absolute.

Exercise 3. Look at Fig. 26–1 and find the main female reproductive organs: external, internal, accessory.

Exercise 4. Read the text, translate it.

One of the most interesting and mysterious attributes of life is the ability to reproduce. In people reproduction is sexual. It means that males and females have specialized cells known as germ [ʤɜːm] cells, or gametes [gæˈmiːts]. In males they are called spermatozoa and in female they are called ova. Germ cells are characterized by having half as many chromosomes as are found in any other cell in the body. During their formation they go through a special process of cell division, called meiosis [maiˈəʊsis], that in humans reduces the chromosome number from 46 to 23. The female reproductive system consists of organs which produce ova and provide a place for the growth of the embryo.

Ova are produced by the ovary from the puberty period to menopause (end of the fertile period in women). Release of an ovum from the graafian follicle of the ovary into the fallopian tube is called ovulation. Besides the ovaries the major organs of the female reproducrive system include the fallopian tubes, uterus, vagina and vulva.

Vulva is the external genitalia, it includes the vaginal lips, clitoris and vaginal and urethral orifices. The space between the vaginal orifice and the anus is called perineum.

Breasts also belong to the reproductive system, as they are milk-producing glands which consist of lactiferous ducts and sinuses, carrying milk to the nipple.

In the female, as in the male, reproductive function is controlled by hormones from pituitary gland as regulated by the hypothalamus. Female activity is cyclic, that is, shows regular periods of increases and decreases in hormone levels. The length of the menstrual cycle varies between 22 and 45 days. The duration of menstrual flow is 2 to 6 days.

Estrogen ['estrədʒən], progesterone [prə'dʒəstərəun] are two female sex hormones. Estrogen promotes development of the uterine lining and maintains secondary sex characterics.

Progesterone is produced by the corpus luteum and placenta; maintains the lining of the uterus for pregnancy.

When semen is deposited in the vagina, many spermatozoa immediately wriggle about in all directions. When a spermatozoon encounters an ovum, it can penetrate the cell membrane of the ovum. The result of this union is fertilization.

The placenta is the sponge-like vascular organ. It develops during pregnancy in the uterine wall, and the fetus grows in it up to the parturition [ˌpɑ:tjʊ'riʃn] or delivery.

Menopause is the cessation of menstruation. It is often called change of life. It occurs between the ages of 45 and 55, and is caused by a normal decline in ovarian function.

Exercise 5. a) Title the text.

b) Divide the text into independent passages, title each making a plan of the text.

Exercise 6. Match the synonyms and synonymous expressions from a) and b).

a) Delivery, female, mammary glands, a pair, pathway, childbirth, work.

b) Duct, breasts, woman, labor, couple, parturition, confinement.

Exercise 7. Answer the following questions.

1) What cells are gametes?

2) What are they in males and females?

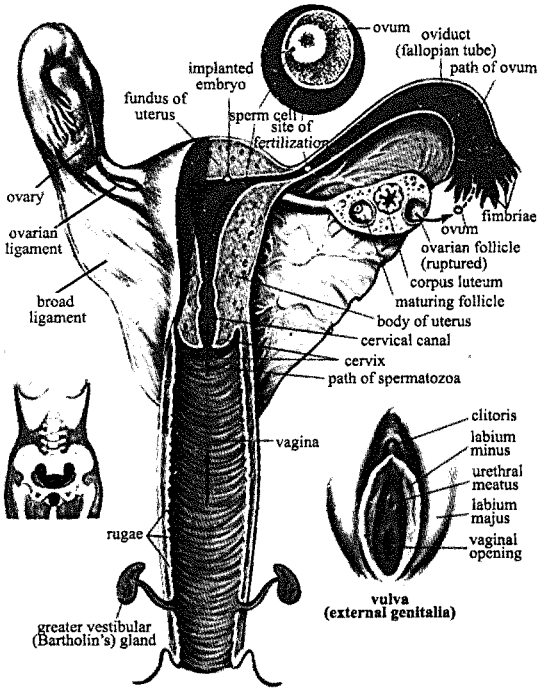


Fig. 26–1. The female reproductive system

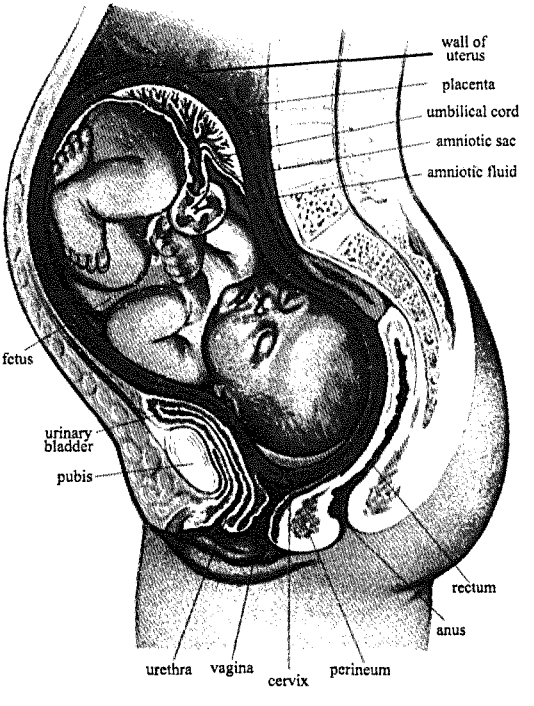


Fig. 26–2. Pregnancy

3) What does meiosis mean?
4) What does the female reproductive system include?
5) What is ovulation?
6) Can you name external female sex organs?
7) Where is the perineum located?
8) What is the function of breasts in women?
9) What can you say about the menstrual cycle?
10) Do you know anything about female sex hormones?
11) Can you describe the process of fertilization?
12) Is the placenta also an organ?
13) What is menopause?

Exercise 8. Look at Fig. 26–2 and speak of pregnancy physiology.

II. Grammar Exercises

Exercise 1. Fill in the blanks with the names of diseases given below.

1. In Middle Ages many people suffered from ... . 2. In my childhood I had ... , ... , ... 3. These patients are ill with ... . 4. The doctor diagnosed the case as ... . 5. He often has ... . 6. The doctor says that he is ill with ... 7. His father died of ... . 8. I suppose that she suffers from ... .

(bronchitis, cancer, chickenpox, scarlet fever, mumps, dysentery, rheumatism, tuberculosis, pneumonia, quinsy)

Exercise 2. Translate the sentences into Ukrainian.

1. The earlier the diagnosis is made, the simpler and more conservative successful treatment is. 2. The sicker the patient with a fractured hip is, the sooner surgery should be carried out. 3. The better the condition of the patient and the younger he is, the greater the delay that may be accepted before surgery. 4. The higher the pressure in relation to cardiac output, the more severe the stenosis. 5. The older a person becomes, the more likely he is to develop cancer. 6. The more tender the place on the body where the disease attacks, the severer aggravation is. 7. The greater conductivity a substance has, the less is its resistance.

Exercise 3. Translate the sentences. Find complexes with infinitives, gerunds or participles and name them.

1. They are brilliant scientists fighting against heart diseases. 2. The human brain has a wonderful capacity for compensating disrupted functions. 3. Being on a sick-leave, the patient was following a strict bed rest regime. 4. Before starting to examine the patients the doctor puts on his while overall. 5. These students have acquainted themselves with the main rules of carrying out an examination. 6. Having investigated the patient's past history, the physicians came to a conclusion that the patient was sensitive to antibiotics. 7. The new equipment having been received, we began our experiments. 8. His being sent to London was very important for his work. 9. To get a clear picture of the illness a contrasting substance is introduced into the patient's carotid artery. 10. We know him to be operated on in our clinic. 11. He is supposed to have been discharged from the hospital. 12. They seem to have been treated, using this new method. 13. These devices are considered to be very effective.

Exercise 4. Translate into English.

1. Лікар зробив операцію і вона була успішною. 2. Пацієнт випив ліки, але температура була така ж сама. 3. Ні лікар, ні медсестра не повинні робити помилок у своїй роботі. 4. Ми бачили її вчора в операційній, коли вона допомагала хірургу. 5. Якщо все буде гаразд, його випишуть з лікарні через кілька днів. 6. Медсестра дала хірургу скальпель, і він розпочав складну операцію.

III. Independent Work: Mother and Child Health

Exercise 1. Read the text and retell it.

Mother and Child Health

Specialized medical care is given to the baby beginning with its first day of life at in-patient and polyclinic establishments for children. A special **obstetrical-gynecological**[1] and pediatric service has been established in Ukraine.

Specialized medical establishments provide **appropriate care**[2] for future mothers and newborns through diagnostic and **preventive-cure measures**[3] to help women overcome different **disorders**[4] and prevent them from affecting the **progeny**[5].

Women who suffer, for instance, from heart defects are placed, at the time of **pregnancy**[6] and during **delivery**[7], under the observation of obstetricians, therapeutists, immunologists, hematologists.

Thanks to timely medical care and **availability**[8] of specific instrumentation and equipment at our hospitals, the women who suffer from such **ailments**[9] go through pregnancy and delivery successfully. All mother and child health advisory centers conduct disease prevention and cure work.

Our medical science devotes much attention to the health of mother and child.

At present there are some research institutes for pediatrics, obstetrics, gynecology and mother and child care in Ukraine. Their research and methods of treatment help to control infantile infectious diseases. This comes from the tremendous efforts of our scientists.

Our medical science pays utmost attention to the health of mother and child.

Notes:

[1] obstetrical-gynecological – акушерсько-гінекологічний
[2] appropriate care – належне піклування
[3] preventive-cure measures – лікувально-профілактичні заходи
[4] disorder [dis'ɔ:də] розлад, хвороба
[5] progeny ['prɒʤini] потомство
[6] pregnancy ['pregnənsi] вагітність
[7] delivery [di'livəry] пологи
[8] availability – наявність
[9] ailment ['eilmənt] хвороба

Exercise 2. Make up a plan of the text.

Exercise 3. Ask 10 questions based on the text.

UNIT TWENTY-SEVEN

I	Speaking	At the Gynecologist's

I. Speaking: At the Gynecologist's

Exercise 1. Learn the topical words.

period	менструація
discharge	виділення
moderate	помірний
miscarriage	викидень
abortion	аборт
cesarian section	кесарів розтин
pain	біль
slight	слабкий
dull	тупий
sharp	гострий, нестерпний
giddiness	запаморочення
disorder	захворювання
female dispensary	жіноча консультація

Exercise 2. Learn the typical questions a gynecologist asks his patients.

At what age did you have your first period?	У якому віці у вас з'явились перші менструації?
How long is your period?	Скільки днів у вас триває менструація?
Is discharge excessive (moderate)?	Виділення сильні (помірні)?
Do you have pains during your period?	Є болі під час менструації?
How many pregnancies have you had?	Скільки у вас було вагітностей?
How many childbirths?	Скільки пологів?
Have you had any abortions (miscarriages)?	У вас були аборти (викидні)?
Were the deliveries normal?	Пологи були нормальними?
Did you have cesarian section?	Вам робили кесарів розтин?
What character of pain do you have (severe, slight, dull, sharp)?	Який у вас біль (сильний, слабкий, тупий, гострий)?
In what position do pains get worse?	У якому положенні біль посилюється?
Are these attacks accompanied by giddiness, nausea, vomiting, frequent urination, breathlessness, loss of consciousness, high temperature?	Ці напади супроводжуються запамороченням, нудотою, блюванням, частим сечовиділенням, задишкою, втратою свідомості, високою температурою?
Have you had any gynecological disorders?	У вас були якісь гінекологічні захворювання?

Exercise 3. Make up a dialog between a gynecologist and a patient.

UNIT TWENTY-EIGHT

I	**Speaking**	Duties of a Midwife
II	**Independent Work**	Risk of Having Children in Later Life

I. Speaking: Duties of a Midwife

Exercise 1. Learn the topical word combinations.

The duties of a midwife:

* to be responsible for her doings;
* to give first aid;
* to help the gynecologist;
* to prepare instruments for examination of women;
* to measure pregnant women;
* to do all prescriptions of the doctor;
* to observe and take care of pregnant women, women in childbirth and women after delivery.

Exercise 2. Pay attention that obstetricians can work at:

* the female (prenatal) department (жіноча консультація);
* the maternity home/hospital (пологовий будинок);
* feldsher-midwife stations (ФАП);
* prophylactic centers of large facilities (factories, plants, etc.).

Exercise 3. Translate into English.

Я хочу стати хорошим акушером. Ця професія необхідна, почесна і важлива для продовження людства. На мою думку, акушерка повинна бути доброю, уважною, милосердною, рішучою, діяти спокійно і розсудливо. Акушерка повинна мати достатньо знань щодо своєї роботи. Вона повинна вміти приготувати інструменти для обстеження жінок, обстежувати та вимірювати таз вагітної, надавати медичну допомогу, виконувати вказівки гінеколога та лікарів, здійснювати догляд за вагітною, роділлею і породіллею, проводити санітарно-просвітницьку роботу.

Exercise 4. Read the interview.

Nicky Cox

– What do you enjoy about being a community midwife?

– The job has great highs. After I have delivered a baby, I often feel elated. I've smiled to myself many occasions and thought, "And I'm getting paid to do this!" It has its downsides too, though. When a birth doesn't go to plan, say, it is very prolonged and the heart monitor shows the baby is in distress, it can be very stressful. And of course – very, very rarely, thankfully

when there is a stillbirth or a baby is born with a deformity, it makes you feel awful for days or even weeks.

– What are the qualities of a good midwife?

– Number one is people skills. Of course you need a lot of knowledge, but perhaps more than any other nursing job, a midwife must be good at getting on with people. When a woman gives birth, she feels very vulnerable and at the same time, it is an intensely personal experience you are sharing with her. I try to develop a strong relationship with my mothers during pregnancy when they come for their ultrasounds and physical examinations.

– What are your views on a natural birth at home?

– It's all about choosing the right type of birth for you. I think giving birth without pain-controlling drugs in the comfort and familiar surroundings of your own home can be a wonderful experience. But my job is to explain objectively to each woman her options and let her decide. I run a weekly antenatal class for parents-to-be in which I explain the ins and outs of hospital birth, home birth, and water birth, as well as covering issues such as breastfeeding, the mother's diet during pregnancy, and how the father can help during labor.

Exercise 5. Answer the questions.

– When does Nicky feel extremely happy?

– What makes her feel awful?

– In what ways does Nicky prepare women for birth in her weekly antenatal classes?

Exercise 6. Discuss with a partner whether you would like to do Nicky's job. Explain your reasons.

II. Independent Work: Risk of Having Children in Later Life

Exercise 1. Read the text.

Over the past 50 years or so possibilities for controlling fertility have grown. These changes began with the introduction of oral contraception and have continued with the legalization of induced abortions. On the other hand the development of more and more sophisticated techniques of *in vitro* fertilization and advances in obstetrics enhance fertility and ensure safe deliveries in older women, thus giving them a chance to become mothers at a middle age.

But according to the findings of many obstetricians-gynecologists an older age strongly increases the risk of at least three untoward outcomes — namely, stillbirth, miscarriage and ectopic pregnancy. Maternal age has an impact on other aspects of reproduction. Among those that are usually recorded are multiple births and congenital malformations.

When birth defects are considered, older women have a consistently increased risk for Down's syndrome, which is less of a hazard now than it was, owing to the advent of prenatal screening. Certain rare disorders are more common among births to older fathers. Some of them that are thought to be new mutations are detectable in offspring only later in life, schizophrenia is one example.

Information on parental age and possible unfavorable outcome is important in counseling prospective parents. But after potential parents have weighed the age factor in terms of conceiving and carrying a pregnancy to the end, they might be glad to know that a child born

to older parents does have advantages. In some studies such children do better at school than those of very young parents. In the difficult task of raising children older parents may be less healthy than younger ones, but their experience and knowledge are almost always greater, their economic situation is better, and they can give to the child a more stable rear. Biological disadvantages are to some degree balanced by social advantages.

From *British Medical Journal, 2000*

Exercise 2. Write a summary of the text.

UNIT TWENTY-NINE

I	**Speaking**	Pregnancy
II	**Independent Work**	New Techniques Help Childless Couples – Even after Menopause

I. Speaking: Pregnancy

Exercise 1. Learn the topical words.

condition – стан
exist – існувати, бути, жити
egg, egg cell – яйцеклітина
to fertilize – запліднювати
a missed menstrual period – припинення менструації
notice – помічати, відзначати
sickness – нудота
trimester – триместр, тримісячний термін
experience – відчувати, почувати
nipple – сосок
enlarge – збільшуватися, розширюватися
waistline – талія
expand – розширятися, розтягуватися
apparent – видимий
cumbersome – обтяжливий
tired – втомлений

Exercise 2. Read the text.

Pregnancy

Pregnancy is the condition that exists in a woman between the time when one of her eggs is fertilized by a sperm and the time when her child is born.

Symptoms

Usually the first symptom noticed by a pregnant woman is a missed menstrual period. Nausea and vomiting ("morning sickness") are also common symptoms of pregnancy.

The nine months of pregnancy are usually thought of medically as three three-month periods, or trimesters. During the first trimester, the woman may experience nausea and vomiting, her breasts and nipples will become enlarged, and her waistline may expand.

In the second trimester, the uterus expands, abdominal enlargement becomes more apparent, and the woman can feel the fetus move. Many women feel their best during this trimester.

During the last three months, pregnancy tends to become a more cumbersome condition, and the woman may feel tired much of the time. The fetus often "drops" lower in the uterus in the last month.

Exercise 3. Answer the questions.

1. What is pregnancy?
2. What is the first symptom of pregnancy?
3. What are also common symptoms of pregnancy?
4. What does the word "trimester" mean?
5. What changes take place in woman's body during the first (second, third) trimester?
6. When does the fetus "drop" lower in the uterus?

Exercise 4. Unite the words into groups – nouns, adjectives, verbs.

Pregnancy, pregnant, fertilize, fertilization, sick, sickness, enlarge, enlargement, tired, tiredness, delivery, deliver, fertility.

Exercise 5. Without looking at the text, tick (∨) the things you think are safe in pregnancy. Put a cross (x) next to the things you think are not safe, and a question mark (?) if it depends on the situation. Compare your answers with your partner's.

	Your opinion	Advice in the text
1	a lot of calcium	
2	a lot of tuna	
3	folic acid tablets	
4	four cups of tea a day	
5	gardening	
6	hard cheese, such as cheddar	
7	herbal medicines	
8	immunization against chickenpox	
9	one small glass of red wine a day	

Exercise 6. Read the text and put a tick, a cross, or a question mark concerning the advice it gives.

Most pregnancies go well and without any major problems. But it is wise to reduce any risks as much as possible. So, a reminder of things to consider before becoming pregnant, or as soon as you realize that you are pregnant...

DO

- take folic acid tablets before you get pregnant until 12 weeks of pregnancy;
- have a blood test to check if you are immune to rubella and to screen for hepatitis B, syphilis, and HIV. Ask your practice nurse to do this;
- eat a healthy diet. Include foods rich in iron, calcium, and folic acid;
- wash your hands after handling raw meat;
- wear gloves when you are gardening.

AVOID

- eating undercooked meat or eggs, soft cheese, pâté, shellfish, raw fish, or unpasteurized milk;
- fish which may contain a lot of mercury – shark, marlin, swordfish, or excess tuna;
- cat feces, which may carry certain infections, such as toxoplasmosis;
- peanuts – if you have a personal or family history of eczema, hay fever or asthma;
- too much caffeine in tea, coffee, cola, etc. Have no more than 300 mg per day. This is in about three cups of brewed coffee, or four cups of instant coffee, or six cups of tea.

STOP

- drinking alcohol – you are strongly advised not to drink at all;
- smoking – you are strongly advised to stop completely;
- using street drugs – you are strongly advised to stop completely.

THINK ABOUT

– immunization against hepatitis B if you are at increased risk of getting this infection;
– immunization against chickenpox if you *are* a healthcare worker and have not previously had chickenpox and so *are* not immune;
– whether to continue with herbal and over-the-counter medicines;
– your work environment – is it safe?
– medical conditions in yourself, or conditions which run in your family.

Exercise 7. Find words in the text that match the definitions:

— a liver disease;
— two sexually transmitted diseases;
— a metal that is poisonous in large amounts;
— three conditions caused by allergy;
— illegal drugs;
— drugs sold in a chemist's.

Exercise 8. Discuss the questions with a partner.

– Did any of the pieces of advice surprise you?
– Do you know of any other advice that is not included here?
– In your country, what foods do pregnant women eat to help their baby develop healthily?

II. Independent Work: New Techniques Help Childless Couples – Even after Menopause

Exercise 1. Memorize the words and word combinations.

childless couple	бездітна пара
in vitro fertilization	запліднення в пробірці
the release of eggs	вивільнення яйцеклітин
insurmountable	нездоланний, непереборний
shrivel like raisins	зморщуватися, як родзинки
viable	життєздатний
impregnate	запліднити
prematurely	передчасно
offspring	нащадок
stillborn baby	мертвонароджена дитина
to bear children	виношувати дітей
gene	ген

Exercise 2. Read an article from the "Time" magazine and say what this article deals with.

A Revolution in Making Babies

The growing problem of infertility – exacerbated by a generation of would-be parents who put off having babies until their 30s and 40s – and the early successes of in vitro ("test-tube") fertilization have laid the groundwork for a revolution in reproductive technology.

Of all the barriers to pregnancy, menopause, which shuts down the release of eggs from the ovaries, was long considered the most insurmountable. But though the ovaries may shrivel like raisins, the other reproductive organs of post-menopausal women are still viable. These women can now become pregnant using someone else's eggs, according to a remarkable report in *New England Journal of Medicine.* A team led by Dr. Mark Sauer of the University of Southern California impregnated six of seven postmenopausal women, ages 40 to 44, using eggs that were taken from younger women and fertilized with sperm from the older women's husbands. Four of these prematurely menopausal women gave birth to healthy offspring, one miscarried, and one had a stillborn baby – an outcome that Sauer said would have been considered normal with six younger women. "The limits on the childbearing years are now anyone's guess," wrote Dr. Marcia Angell in an accompanying editorial. Theoretically, donor eggs could allow women whose ovaries have stopped functioning to bear children into their late 40 and 50s. Researchers believe that the new technique will have the biggest impact on women in their 40s who have not yet reached menopause but have failed to conceive. The new findings suggest that these women may be infertile not because their uteruses are too old but because their ovaries are, and that with eggs donated by younger women their chances of getting pregnant may be as good as those of the young women themselves. The hitch is, of course, that the children developing from such eggs have the genes of the female donor and are genetically unrelated to the mother who bears them – a fact that presents both legal and ethical problems as yet unresolved.

The other report issued last week focuses attention on the Fallopian tubes, the narrow passages that carry eggs from the ovaries to the uterus. Women whose tubes are clogged with scar tissue or other obstructions cannot conceive by natural means because their eggs have no way of getting to the womb. In the past, such women had to undergo surgery to have their tubes cleared. Now the problem can be overcome in a doctor's office, according to an article in the *Journal of the American Medical Association.* With a tiny balloon similar to those used to clear blocked arteries, scientists were able to unclog the Fallopian tubes in 64 of 77 women, 22 became pregnant within a year. Dr. Edmond Confino, who pioneered the technique at Mount Sinai Hospital Medical Center in Chicago, estimates that it could help nearly one third of the 1 million American women who suffer from blocked tubes.

The new methods join an array of novel techniques that seem to multiply faster than test-tube babies. Most are variations on the pioneering procedure known an in vitro fertilization. In IVF, eggs are removed from the ovaries, mixed with sperm in a laboratory dish, allowed to develop into embryos and then inserted into the uterus. But even at well-run clinics, the original IVF procedure fails 75 % to 85 % of the time. The biggest snag comes when the embryo is inserted in the uterus, an operation that can be very disruptive to the womb. As a result, such embryos often fail to take root, or implant. To increase the chances of implantation, many doctors are now inserting egg and sperm into the Fallopian tube, a procedure known as GIFT (for gamete intra-fallopian transfer). Fertilization takes place not in a laboratory dish but in the Fallopian tube, as it would naturally, and the resulting embryo drifts gently into the uterus, where it is much more likely to be successfully received. In yet another variation, called ZIFT (for zygote intra-fallopian transfer), the sperm are allowed to fertilize the eggs before transfer to the Fallopian tube. The advantage: only those eggs that are successfully fertilized need be transferred. GIFT and ZIFT have turned out to be breakthrough procedures. Some doctors who have switched from standard IVF to the new techniques have doubled their success rates, which now approach 50 %. As the odds have improved, the demand for IVF has surged, despite the high cost (up to $ 8,000 a try) and the uneven quality of the clinics offering the service.

Exercise 3. Describe the way IVF is performed.

Exercise 4. Express your own attitude towards the problem of test-tube babies.

Exercise 5. Choose English equivalents of the Ukrainian words.

1) Майбутні батьки; 2) першокласні клініки; 3) перепона; 4) незважаючи на велику вартість; 5) найбільша перепона (труднощі); 6) зморщуватися/усихати, як родзинки; 7) укорінюватися, приживлятися; 8) у однієї був викидень; 9) мертвонароджена дитина; 10) робити продування (чистку) труб.

(a – the hitch; b – to take root; c – one miscarried; d – to shrivel like raisins; e – a stillborn baby; f – well-run clinics; g – to have tubes cleared; h – despite the high cost; i – the biggest snag; j – would-be parents)

Exercise 6. Choose antonyms of the words.

1) Fertility; 2) in vitro; 3) menopause; 4) to fail; 5) to insert; 6) to increase.

(a – menarche; b – to succeed; c – to withdraw; d – to decrease; e – in vivo; f – infertility)

UNIT THIRTY

I	**Speaking**	Prenatal Care
II	**Independent Work**	Miscarriage

I. Speaking: Prenatal Care

Exercise 1. Learn the topical words.

prenatal care – ведення вагітної, нагляд за вагітною жінкою
to confirm – підтверджувати
mother-to-be – майбутня мати
complication – ускладнення
nutrition – харчування
additional – додатковий
varicose veins – варикозне розширення вен
rapid – швидкий
weight gain – набирання ваги
inadequate – неадекватний, невідповідний
significant – значний
swelling – набрякання
participate – брати участь
limitation – обмеження, застереження

Exercise 2. Read the text.

Once the doctor has confirmed pregnancy, a program of prenatal care will be prescribed for the mother-to-be. Prenatal care consists chiefly of making sure that nothing goes wrong with this completely normal and natural process – in other words, that there are no complications.

Good nutrition is especially important during pregnancy.

The additional weight puts more stress on the back and on the legs, sometimes resulting in such problems as swayback* and varicose veins.

Due to either rapid weight gain or inadequate kidney function, some women experience significant swelling in the ankles and lower legs and, to a lesser extent, in the hands and fingers.

Proper rest and exercise are important throughout pregnancy.

In general, a woman can participate in most, if not all, of the activities and sports she was taking part in before her pregnancy. Her doctor can advise her about any limitations.

Note:

*swayback – патологічне посилення поперекового лордозу і грудного кіфозу, "кругла спина"

Exercise 3. Answer the questions.

1. When will a program of prenatal care be prescribed for the mother-to-be?
2. What does prenatal care consist of?
3. What is especially important during pregnancy?

4. Can additional weight cause some problems?
5. Can a woman participate in most activities and sports she was taking part in before her pregnancy?
6. Who can advise her about any limitations?

II. Independent Work: Miscarriage

Exercise 1. Read the text.

...That night Clare woke with a pain in her back. When she looked she saw there was some vaginal bleeding. Graham telephoned Mr. O'Rory. Then he carried her outside in a blanket, and drove her 10 miles to the hospital. The gynecologist was already waiting. He put Clare into his ward, surrounded her with hot-water bottles, ordered an injection of morphine, prescribed doses of bromide and added well-polished encouraging words.

"Is she aborting?" asked Graham outside the ward.

"Well, it's an abortion," Mr. O'Rory said amiably. "It's just eight weeks since the lady's last menstrual period. So it wouldn't be an unheard occurrence at such a time, would it?"

"Could anything have caused it?" Graham asked anxiously.

"Oh, these things happen, they just happen. To tell the truth, none of us knows really why."

"What's the chance of saving the fetus?"

"I'd say quite good. There's nothing to worry about, nothing at all."

...The bleeding went on. The following day Mr. O'Rory shook his head and said he feared the lady must visit his operating room.

Exercise 2. Answer the questions.

1. Why did Clare wake up?
2. Where did Graham drive her?
3. What did the gynecologist do?
4. Could anything have caused an abortion?
5. What did Mr. O'Rory say the following day?

UNIT THIRTY-ONE

I	**Speaking**	Precautions

I. Speaking: Precautions

Exercise 1. Learn the topical words.

substance – речовина
find (found, found) – знаходити; установлювати; виявляти
affect – впливати

survival – виживання
birth defects – вроджені вади
to be related (to) – бути пов'язаним (з)
vitamin deficiency – вітамінодефіцит, авітаміноз
cause – бути причиною, спричиняти
interaction – взаємодія
inherit – успадковувати
beware – остерігатися
hazard – ризик, небезпека
safety – безпека
safe – безпечний
medication – засіб для лікування
approval – схвалення, згода

Exercise 2. Read the text.

Precautions

Many substances and organisms have been found to affect the development and survival of the fetus. It is estimated that 20 percent of all birth defects are directly related to environmental factors such as drugs, viruses, and vitamin deficiencies. Another 60 percent are caused by the interaction of an environmental factor and an inherited predisposition. So it is important for every woman who is contemplating pregnancy or is already pregnant to beware of the possible hazards to which her baby may be vulnerable.

One of the most important aspects of prenatal care is safety in the use of medications and the ingestion of nonfood substances. A pregnant woman (or one who even suspects she is pregnant) should never take a medication without her doctor's recommendation or approval. This caution includes over-the-counter preparations – even aspirin – as well as prescription drugs. In addition, a woman should not smoke during pregnancy, and she should limit, if not eliminate, consumption of alcoholic beverages. Smoking has been linked to miscarriage (expulsion of the fetus before it is capable of surviving on its own), low birth weight, and prematurity. Alcohol, too, has been linked to miscarriage, and studies have shown that alcohol can affect the brain of the fetus. Products containing caffeine should probably also be limited. The best guideline to remember is that no drug or nonfood substance can be assumed to be harmless during pregnancy.

The fetus is also susceptible to infections that affect the mother-to-be, especially rubella (German measles) and certain sexually transmitted diseases, such as herpes. A pregnant woman should avoid immunizations with live viruses and postpone travel to foreign countries where infectious diseases are prevalent. Toxoplasmosis, an infection spread by eating or preparing uncooked meat or handling a cat's litter box, presents another risk. The parasite that causes toxoplasmosis is harbored in the bodies of some food animals (pigs, sheep, and cattle) and in the intestinal tracts of cats. A pregnant woman need not forgo meat or get rid of her cat. She should, however, be certain to cook meat thoroughly and to avoid emptying or cleaning the cat's litter box.

A woman's doctor will also advise against unnecessary X-rays during pregnancy.

As the medical profession has learned more about inherited diseases, it has been able to offer genetic counseling to couples concerned about the possibility of having a child with an inherited disease or abnormality. A genetic counselor or specialist in genetic disorders can estimate the likelihood that a couple's offspring will be afflicted with a problem due to an inherited trait or to the age of the parents. For some genetic disorders, tests can determine whether one or both parents are carriers or can detect whether a defect is present in a fetus. However, genetic counseling cannot guarantee the health of a child; it can only be a source of advice.

Notes:
it is estimated – приблизно підраховано
inherited predisposition – спадкова схильність
contemplate – обдумувати; мати намір
to be vulnerable – бути вразливим
ingestion – ковтання, поглинання

Exercise 3. Make a list of precautions for pregnant women.

UNIT THIRTY-TWO

I	**Speaking**	Fetus
II	**Independent Work**	Premature Delivery

I. Speaking: Fetus

Exercise 1. Learn the topical words.
individual – індивід, особа
organ systems – системи органів
continue – продовжувати(ся)
mature – достигати, доходити зрілості, наставати (про строк)
divide – ділити(ся)
equal – рівний, однаковий
grow – рости
growth – ріст, зростання; розвиток
external genitalia – зовнішні статеві органи
sufficiently – достатньо
weigh – важити, мати вагу
weight – вага
length – довжина
vary – різнитися, мінятися
occur – траплятися, відбуватися
reveal – відкривати(ся), виявляти, показувати
sex – стать

Exercise 2. Read the text.

Fetus

The term *fetus* is used for the developing individual from the beginning of the third month of pregnancy until birth. During this period the organ systems continue to grow and mature. For study, pregnancy may be divided into three equal segments or trimesters. The most rapid growth occurs during the second trimester (months 4–6). By the end of the fourth month, the fetus is almost 15 cm long, and its external genitalia are sufficiently developed to reveal its sex. By the seventh month, the fetus is usually about 35 cm long and weighs about 1.1 kg. At the end of pregnancy, the normal length of the fetus is 45 cm to 56 cm, and the weight varies from 2.7 kg to 4.5 kg.

Exercise 3. Find English equivalents.

Від початку третього місяця до народження; системи органів продовжують рости; найшвидший ріст; до кінця; плід майже 15 см у довжину; достатньо розвинуті; визначити його стать; в кінці вагітності.

Exercise 4. Answer the questions:

1. When is the term *fetus* used?
2. Do the organ systems continue to grow and mature during this period?
3. How may pregnancy be divided for study?
4. When does the most rapid growth occur?
5. When can fetal sex be revealed?
6. What is the normal weight (length) of the fetus at the end of pregnancy?

Exercise 5. Read the text and the dialog after it.

Use of Ultrasound

A valuable diagnostic tool that avoids the use of undesirable X-rays is a form of vibrational energy called *ultrasound.* By this method soft tissues can be visualized and such abnormalities as ectopic pregnancies and placenta previa can be accurately delineated. The relatively inexpensive ultrasound equipment has been found useful in detecting abnormalities of the fetus as well as tumors and other disorders of the reproductive system.

N – nurse, M – Mrs Murphy

N: OK, Mrs Murphy, just lie back on this examination table. Are you comfortable?

M: Yes, thank you.

N: Have you had plenty of water to drink?

M: Yes – three glasses.

N: Good, we need your bladder full. I'm putting some gel onto your abdomen. That helps the ultrasound work well.

M: OK.

N: Your notes say the baby has stopped moving. Is that right?

M: Yes, I'm a bit worried.

N: And you're in the twenty-second week of your pregnancy?

M: Yes.

N: Right. Well the ultrasound scan is very simple. When I pass the transducer over your abdomen, it bounces sound waves off the baby's body and it makes a picture here on the monitor. Then we can see if there is anything wrong. It shows up any abnormalities. A scan can usually show if the baby is a boy or a girl. Do you want to know the baby's sex?

M: Yes please.

N: OK. I'm passing the transducer over your abdomen now. Ah, here we are. There's the baby. Can you see it?

M: It's not very clear.

N: Well, here's the head. Can you see that?

N: And there's a hand. Five fingers. And there's a foot – can you see?

M: Yes.

N: Can you see the heart beating? The baby's alive and looks good. Yes, everything is normal. And look – a penis. It's a boy.

M: Really? I wanted a girl.

N: You did? Just a moment! Well you're not going to be disappointed – you're going to have twins – a boy and a girl.

Exercise 6. Act out the dialog.

II. Independent Work: Premature Delivery

Exercise 1. Read the text.

Elizabeth put the vacuum cleaner away and began to move around the apartment, tidying and dusting. She was about to cross to the tiny kitchen when the pain struck her. It came suddenly, without warning, like a fire, and worse, much worse, than the day before in the hospital cafeteria. Drawing in her breath, biting her lip, trying not to scream aloud, Elizabeth sank into a chair behind her. Briefly the pain went away, then it returned, even – it seemed – more intensely, it was as if it were a cycle. Then the significance struck her. Involuntarily she said, "Oh, no! No!"

The hospital number was by the telephone. Having a rest between each onset of pain, grasping the table for support, Elizabeth dialed and when a voice answered, she said, breathlessly, "Dr. Dornberger, please, it's urgent".

There was a pause and he came on the line. "It's Mrs. Alexander," Elizabeth said. "I've started ... to have my baby."

...A policeman on duty heard the ambulance's siren six blocks away. Inside, Elizabeth was only dimly conscious of their progress through the busy streets. For an instant between each onset of pain she could see the driver up ahead. All Elizabeth could think through the miasma that engulfed her, was: "My baby – he'll be born too soon! He will die! Oh, God, don't let him die! Not this time! Not again!"

...In the room which the hospital staff jokingly called "the expectant fathers' sweatbox" John Alexander put a half-smoked cigarette into an ashtray. He glanced at his watch. He saw that

it was an hour and three quarters since he had come here, surely soon there must be some news. He wished he had seen Elizabeth before she had gone into the delivery room, but everything had happened so quickly that there had been no time.

Now the door from the corridor opened, and this time it was Dr. Dornberger. From his face John tried to read the news, but without success. He asked, "You are John?"

"Yes, sir." Though he had seen the elderly obstetrician several times in the hospital, this was the first time they had spoken to each other.

"Your wife will be all right," Dornberger said without preliminaries.

John's first impression was of overwhelming relief. Then he asked, "And the baby?"

Dornberger said quietly, "You have a boy. He was premature, of course, and I have to tell you, John – he is very weak."

"Will he live?" Only when he asked the question did it occur to him how important for him was the answer.

Dornberger had taken out his pipe and was filling it. He said evenly. "Let's say the chances are not as good as if he had come to full term. As far as I can tell you have a 32-week baby; that means he was born eight weeks early." Compassionately he added, "He wasn't ready for the world, John. None of us are so soon."

"No, I suppose not." John was hardly conscious of speaking.

"Your baby's birth weight was three pounds eight ounces. Perhaps that will mean more if I tell you that nowadays we consider any baby less than five pounds eight ounces at birth to be premature."

"I see."

"We have the baby in an incubator, of course. Naturally, we'll do our best."

John looked at the obstetrician directly. "Then there is hope."

"There's always hope, son," Dornberger said quietly. "When we haven't much else, there's always hope."

There was a pause, then John asked, "May I see my wife now?"

"Yes." Dornberger said. "I'll come to the nursing station with you."

Exercise 2. Find in the text English equivalents of the following words and word combinations.

Без попередження; неясно усвідомлювала; майбутній батько; пологова палата; народитися доношеним; наскільки я можу сказати; недоношений; ми зробили все, що в наших силах; дитяче відділення.

Exercise 3. Find in the text antonyms of the following words and word combinations.

Gradually, much better, slowly, a slight pain, voluntarily, an ordinary case, to be clearly conscious, a failure, young, postmature, everybody, death, never.

UNIT THIRTY-THREE

I	**Speaking**	Labor
II	**Independent Work**	WHO Pandemics and Tamiflu

I. Speaking: Labor

Exercise 1. Translate the words.

Amniotic fluid, cell division, embryo, fertilization, fetus, ovum, amniotic sac, sperm, umbilical cord, cervix.

Exercise 2. A pattern of signs often alerts a woman that she may be pregnant. A different pattern of signs occurs when labor begins at the end of pregnancy. Work in pairs to complete the list of signs using the words below. Decide if each sign in the exercise indicates pregnancy or labor. Write P (pregnancy) or L (labor).

bloating	morning	pelvis
contractions	mucus	rupture
discharge	need	strength
fatigue	nipple	temperature
mood	~~period~~	trembling

1. You will miss a menstrual *period.* P
2. False, 'Braxton Hicks' _____ occur. _
3. _____ and sleepiness are common. _
4. Contractions become more rhythmic and increase in _____. _
5. Some women feel abdominal _____. _
6. _____ swings and stress are often reported. _
7. You notice an increase in pink or white _____. _
8. You may experience _____ sickness. _
9. Your basal body _____ will be elevated. _
10. There may be a 'show', which is the release of a_____ plug from the cervix. _
11. You may feel the _____to urinate frequently. _
12. The baby's head engages – that is, it lowers into the _____. _
13. It is common for the area around the _____ to darken. _
14. Shivering or _____ without reason is common. _
15. Your waters break, which is the _____ of the amniotic sac. _

Exercise 3. Read and act out the dialog.

Pain Relief

J – Janice, K – Karen

J: Hello, my name's Janice.

K: Hello, Janice. I'm Karen.

J: Hi, Karen. Boy or girl?

K: A boy. And yours?

J: A girl.

K: Lovely. I think we gave birth at the same time last night, didn't we?

J: Yes. I heard you.

K: Was I making so much noise? Well, it was the pain.

J: Didn't you have any pain relief?

K: Oh yes. I had just gas and air at first. It does relieve the pain a bit, but the effect wears off very quickly. It makes you feel so light-headed if you have too much. It made me feel sick too. Anyway, when the pain became unbearable, I had an epidural.

J: Did that help you cope with the pain?

K: It took away the pain completely! My whole lower half went numb! It was great. How about you?

J: This was my third, so the pain was easier to bear. I did breathing exercises. I decided to have gas and air if the pain got worse, but I didn't need it. I had an epidural last time, but I didn't like losing all sensation. This time I wanted to feel the birth.

K: I'm sorry, Janice – I think you must be mad.

Exercise 4. Read Marie's birth story quickly. What complication was there with her birth?

We started *trying for/making* a baby three years ago. When I didn't *get/go* pregnant after two years, we *made/had* tests, which showed that my husband had a low sperm count. We had IVF, and six weeks later I found I was *waiting for/expecting* a baby. I was nervous when I *had/did* my scan at twelve weeks, but everything was fine.

My waters broke in the middle of the night and I *went into/entered* labor a couple of hours later. The midwife *made/did* a vaginal examination and found that the baby was breech. I'd thought about a home birth, but was now glad I was *having/giving* birth in hospital. As it turned out, though, the medical team weren't needed. The midwife *made/put* a small cut and I managed to *push out/remove* the baby's legs and torso fairly easily – it was a girl! Then I *made/gave* a big push and the head came out. Lilia *gave birth/was born* at 6.28 p.m. I was sobbing as the midwife *handed/delivered* her to me.

Exercise 5. Underline the correct form of the verbs in *italics*.

Exercise 6. Tell a true story about a pregnancy and birth.

II. Independent Work: WHO. Pandemics and Tamiflu

Exercise 1. Read the text.

WHO

Many people do not know what these three letters mean. They even do not read WHO correctly. They read [hu:] but it is [ˈdʌblju:ˈeitʃˈou] and it means World Health Organization. WHO was founded in 1948.

In 1946 the United Nations held an International Health Conference in New York. There the Constitution of WHO was signed by 61 countries. Now there are more than 125 member states. Membership is open to all countries.

WHO activities take many forms:
– strengthening national health services,
– preparing more and better health workers,
– controlling or eradicating epidemic diseases,
– protecting mother and child health,
– improving sanitation and water supply,
– and making all other efforts to raise health levels.

One of the main services carried out by WHO is the service of epidemic warnings. The five main world epidemics of history – plague, cholera, smallpox, typhus and yellow fever – are still a great danger in our time of fast sea and air travel.

WHO gathers information and broadcasts it daily by radio to health authorities, ports, airports and ships at sea. WHO also informs national health services about outbreaks of viral diseases such as influenza and poliomyelitis.

Besides an epidemic information WHO also provides services which are needed by all the countries, such as international quarantine measures, world health statistics, international standardization of medicines and vaccines, development of medical research and technical publication programmes.

The daily work of the World Health Organization is carried out by a medical and administrative staff of a great number of international officers from different countries. These officers are stationed at headquarters (HQS) in Geneva, in Regional Offices, or with Special Centers working in every continent.

Exercise 2. Find English equivalents in the text.

1. Конституція ВООЗ була підписана 61 країною.
2. Членство у ВООЗ доступно всім країнам.
3. ВООЗ інформує національні служби охорони здоров'я про спалахи вірусних інфекцій.
4. Щоденна робота ВООЗ проводиться медичним і адміністративним апаратом службовців із різних країн.

Exercise 3. Answer the questions.

1. What is WHO?
2. What are the activities of WHO?
3. What is one of the main services carried out by WHO?
4. Where is the daily work of WHO carried out?

Exercise 4. Can you name any deadly infectious diseases that have spread around the world?

Exercise 5. Read the text.

Pandemics and Tamiflu

When someone who has flu sneezes nearby, you take tiny droplets of their saliva into your lungs. The droplets contain viruses that are looking for a new home. They get into your lungs and

then into your blood, and can quickly take over your whole body, using it as a factory in which they can reproduce.

At any time, a deadly bacterium or a virus can become very successful and spread across the world, killing millions of human beings. When this happens it is called a 'pandemic'.

There was a pandemic in 1918. An influenza virus called H1N1, or 'Spanish flu', killed between 50 and 100 million people. More people died from H1N1 than were killed in the First World War.

A letter from a doctor in a military camp in 1918 describes the situation:

"...it is only a few hours until death comes. It is horrible. We have been averaging about 100 deaths per day. We have lost many nurses and doctors. Special trains carry away the dead. For several days there were no coffins and the bodies piled up."

Since 1918, the HIN1 virus has mutated. Now there is a mutation called H5N1. When this mutation first appeared in China in 1996, there was a desperate search for a medicine to deal with it. The pharmaceutical company Roche came up with a drug called Tamiflu.

Tamiflu does not kill H5N1, but stops it making copies of itself. If given early enough, vaccinations of Tamiflu could perhaps save many lives. However, the virus will continue to mutate, and might become resistant to Tamiflu. The next mutation may already be with us by the time you're reading this!

Exercise 6. Read the sentences and decide if they are true (T) or false (F).

1. A pandemic is a type of virus.
2. Viruses reproduce outside your body.
3. More people died from Spanish flu than were killed in the First World War.
4. H1N1 is the name of a pandemic.
5. H5N1 is an antiviral drug.
6. Tamiflu is made by Roche.
7. Tamiflu stops H5N1 spreading.

UNIT THIRTY-FOUR

I	**Speaking**	Anesthesia

I. Speaking: Anesthesia

Exercise 1. Read the text.

A. "Anesthesia" means "loss of sensation". Drugs that cause anesthesia work by blocking the signals that pass along your nerves to your brain. This stops you feeling pain. When the drugs wear off, you start to feel normal sensations again.

B. The development of effective anesthetics in the 19th century was an important factor in successful surgery. Before this time, few operations were possible, and surgeons were judged by their speed. Some doctors used alcohol or morphine to reduce the pain, but patients were usually

held or strapped down. Many died on the operating table. Anesthesia meant that surgeons could take more time and perform more complex procedures.

Ether was one of earliest anesthetics, but it had some drawbacks – for example, it could cause vomiting. It was quickly replaced by chloroform, which was more potent and easier to use than ether. However, it was not as safe to use as ether, and could cause sudden death. By the 1920s, intravenous induction agents were introduced. They enabled patients to fall asleep quickly and pleasantly. In the 1940s muscle relaxants became available.

C. Anesthesia can be given in different ways, and not all anesthesia makes you unconscious.

– Local anesthesia numbs a small part of your body. You stay conscious but free from pain.

– Regional anesthesia can be used for operations on larger or deeper parts of the body. The most common regional anesthetics (also known as regional "blocks") are spinal and epidural anesthetics. These can be used for operations on the lower body, such as cesarean sections, bladder operations, or hip replacements. You stay conscious but free from pain.

– General anesthesia is a state of controlled unconsciousness, and you feel nothing. It is essential for some operations such as abdominal surgery. As the anesthetic drugs wear off, your consciousness starts to return.

D. Modern monitoring systems and a greater understanding of the functions of the body mean that anesthesia is now very safe. Fewer than 1 in 250,000 deaths during operations are directly related to anesthesia.

Exercise 2. Choose the best headings (1–6) to match sections of the text (A–D). There are two more headings than you need.

1. Some Types of Anesthesia _____
2. Death on the Operating Table _____
3. A Short History of Anesthesia _____
4. Anesthetic Nurses _____
5. What is *Anesthesia*? _____
6. Anesthesia Today _____

Exercise 3. Answer these questions based on the text.

1. How do anesthetic drugs work?
2. Why do you think patients were held or strapped down before anesthetic drugs were available?
3. What difference did anesthetic drugs make to the work of surgeons?
4. Which was safer to use – ether or chloroform?
5. Which was easier to use – ether or chloroform?
6. Do patients lose consciousness during regional anesthesia?
7. Is death resulting from anesthesia common?

Exercise 4. Find words or phrases in the text with these meanings.

a) Having a strong effect _____
b) Loses the power to feel _____
c) Disappear gradually _____

UNIT THIRTY-FIVE

I	**Speaking**	Male Reproductive System
II	**Grammar**	Compound Prepositions and Conjunctions (§114)
III	**Independent Work**	Major Medical Speciality Fields

I. Speaking: Male Reproductive System

After careful study of this unit you should be able to:
- *name the male gonads;*
- *describe the composition and function of semen;*
- *draw and label a spermatozoon;*
- *name the main male sex hormones;*
- *list major disorders of the male reproductive tract.*

Exercise 1. Read and learn the following words and their equivalents.

English	Latin/Greek	Ukrainian
testicle [ˈtestikl]	testis/didym-	яєчко
epididymis	epididymis	надяєчко (прид. яєчка)
spermatic [spɜːˈmætik] duct, vas deferens	ductus deferens spermatic	сім'явиносна протока
seminal vesicle	vesicula seminalis	сім'яний міхурець
prostate [ˈprɒsteit]	prostat-	простата
bulbourethral [ˌbʌlbəjʊəˈriːθrəl] gland	glandula bulbourethralis	цибулинно-сечівникова залоза
external male genital [ˈdʒenitl] organs	organa genitalia masculina externa	зовнішні чоловічі статеві органи
penis [ˈpiːnis]	penis/phall-	статевий член, пеніс
male urethra	urethra masculina	чоловічий сечівник
scrotum [ˈskrəʊtəm]	scrotum	калитка, мошонка
spermatozoon [ˌspɜːmətəʊˈzəʊən]	spermatozoon	сперматозоїд, живчик
semen	semen	сім'я
contraception	contraceptio	запобігання вагітності, контрацепція
testosteron		тестостерон
seminiferous [ˌsemiˈniferəs] tubules		сім'явиносні канальці
glans penis	glans penis (capitulum)/ balan-	головка статевого члена

2. Read and translate the text.

Male Reproductive System

The reproductive apparatus of males is different from female concerning not only primary but also accessory organs.

The primary organs include the gonades, or sex glands which produce the germ cells and manufacture hormones. The male gonads are testes. They are located outside the body between the thighs in a sac called the scrotum. In the testes there are seminiferous tubules in whose wall cells produce spermatozoa. Between the tubules there are interstitial [intə'stiʃiəl] cells that secrete the male sex hormone testosterone.

Testosterone has two functions:

- the maintenance of the reproductive structures, including development of spermatozoa;
- the development of secondary sex characteristics (accessory).

In the scrotum there is also a greatly coiled tube (6 meters long) called the epididymis. While spermatozoa are temporarily stored in the epididymis, they mature and become motile (рухливі), that is, able to move by themselves.

The epididymis enters the vas deferens. This duct continues through the abdominal cavity

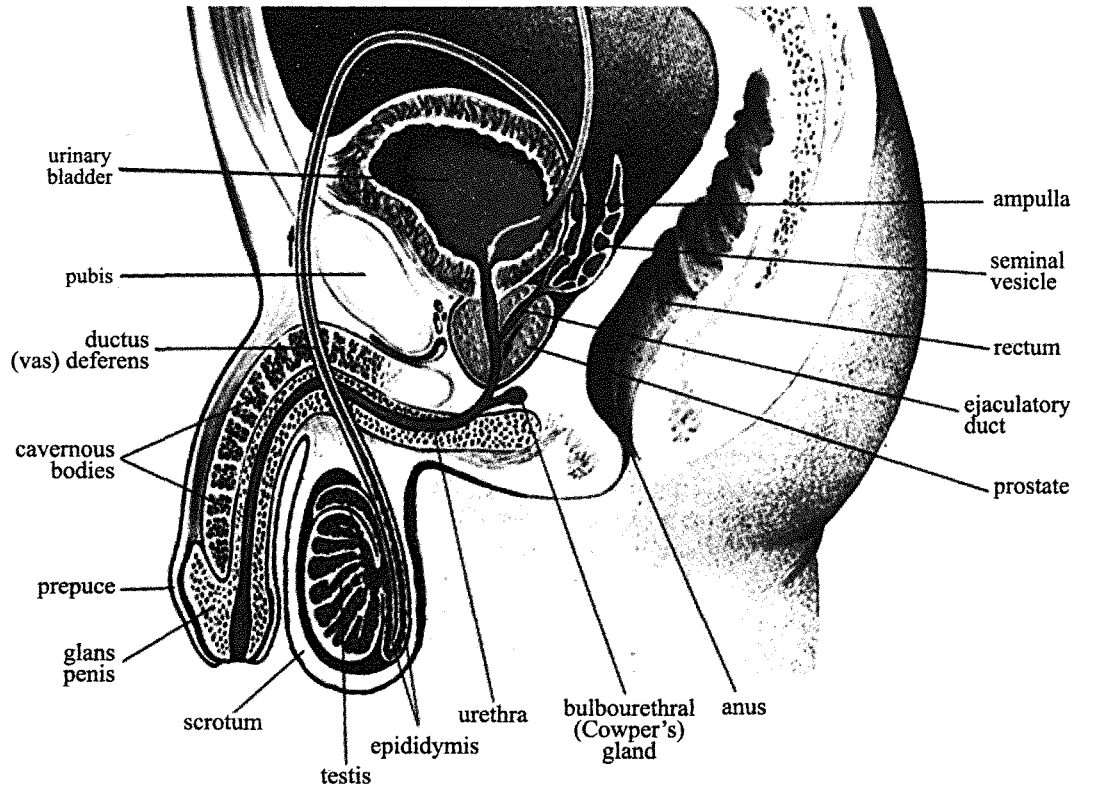


Fig. 27–2. The male reproductive system

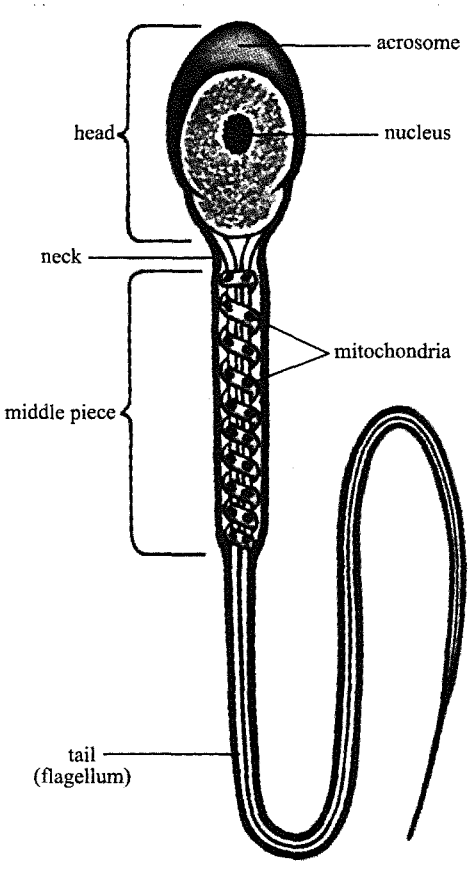


Fig. 27–2. The spermatozoon

and then curves behind the urinary bladder. There each was deferens joins with the duct of the seminal vesicle and forms the ejaculatory duct. The two ejaculatory ducts enter the body of the prostate gland. Ducts from the prostate carry its secretion into the urethra. The urethra passes outside the body through the penis (phallus). It is composed of erective tissue and a soft sensitive part called the glans penis.

Exercise 3. Look at Fig. 27–1 and describe the male reproductive system.

Exercise 4. Look at Fig. 27–2 and describe the human spermatozoon.

Exercise 5. Translate into English.

Вторинні чоловічі статеві ознаки – це грубший голос, ширший плечовий пояс, вужчий таз, більше волосяного покриву на тілі, ніж у жінок.

Exercise 6. Read and translate the following clinical terms.

1. ***Infertility*** is characterized by the decreased ability to reproduse.

2. ***Sterility*** is complete inability to reproduce.

3. ***Cryptorchidism*** [krip'tɔ:kidizm] is the failure of testes to descend into the scrotum.

4. ***Inguinal hernia*** ['ingwinəl'hɜ:niə] is the rupture of the abdominal wall at the inguinal canal.

5. Infections of the male reproductive organs include ***gonorrea***, ***syphilis***, and ***genital herpes.***

6. ***Cancer of the prostate*** is a common disease in men over 50.

Exercise 7. Answer the following questions.

1) What belongs to the organs of the male reproductive system?
2) What are primary and accessory features of the male reproductive system?
3) What disorders in men do you know?
4) What is the main male sex hormone?
5) What are its functions?
6) What is spermatozoon?

II. Grammar Exercises

Exercise 1. Fill in the blanks with the necessary words: *many, much, a lot of, a few, little, a little.*

1. There are ... sportsmen in our college. 2. They spend ... time at the stadium every day. 3. ... students of our group read good in English. 4. I don't have ... free time. I am very busy. 5. There are ... English books in our library. 6. My brother works ... all day long. 7. Do you speak English? – Yes, I do .... 8. I can't go there. I have ... time. 9. He knows physics ..., he didn't take its course. 10. Do you have ... water?

Exercise 2. Use the paired conjunctions *both ... and, either ... or, neither ... nor.* Translate the sentences.

1. ... angina pectoris ... acute pulmonary edema are helped by carotid sinus massage and nitroglycerin. 2. The doctor did not administer him ... a bed regimen ... a diet. 3. A physician revealed ... the increased respiratory rate ... the increased pulse rate.

Exercise 3. Translate the sentences of Exercise 1 and Exercise 2.

Exercise 4. Paraphrase the following sentences using the possessive case of the nouns.

1. The scalpel that belongs to Jack.
2. The camera that belongs to my friend.
3. The text books that belong to her students.
4. The wards that belong to that surgeon.
5. The gown that belongs to the nurse.

Exercise 5. Make up your own sentences using conjunctions from § 114.

III. Independent Work: Major Medical Specialty Fields

Exercise 1. Read and translate the text.

Major Medical Specialty Fields

Allergy and immunology deal with disorders of the immune system, including allergies, autoimmune diseases, and immune deficiencies.

Anesthesiology is the study of anesthesia and anesthetics. Anesthesiologists give anesthetics during operations or supervise the administration of these drugs.

Cardiology is the diagnosis and treatment of disorders of the heart.

Colon and rectal surgery is the surgical treatment of disorders of the lower digestive tract.

Dermatology diagnoses and treats diseases of the skin, nails, and hair.

Emergency medicine deals with the immediate recognition and treatment of acute injuries, illnesses, and emotional crises.

Family practice is the supervision of the total health care of patients and their families, regardless of age.

Neurological surgery, or *neurosurgery*, is the surgical treatment of disorders of the nervous system.

Oncology is the study of tumors.

Ophthalmology is the diagnosis, treatment, and prevention of eye diseases.

Orthopedics is the diagnosis and treatment of disorders of the skeletal and muscular systems.

Pathology is the study of changes in the body that cause disease or are caused by disease.

Pediatrics is the diagnosis, treatment, and prevention of children's diseases.

Radiology is the use of X-rays and radium to diagnose and treat disease.

Thoracic surgery is the surgical treatment of diseases of the heart, lungs, or large blood vessels in the chest.

Urology deals with diseases of the organs that pass the urine and of the male reproductive organs.

Otolaryngology diagnoses and treats ear, nose, and throat diseases.

Exercise 2. Answer the question.

What departments are there at your district hospital?

Exercise 3. Describe the polyclinic at your hospital.

UNIT THIRTY-SIX

I	**Speaking**	English Prescription Control Tests
II	**Independent Work**	Nature's Medicines

I. Speaking: English Prescription

After careful study of this unit you should be able to:

– tell about English prescription;
– list new pharmaceutic terms;
– explain the naming of drugs;
– describe prescription.

Exercise 1. Learn the following pharmaceutic terms.

associate [ə'səuʃieit] з'єднувати(ся); асоціювати(ся)
compound ['kɒmpaund] сполука
curative ['kjuərətiv] цілющий
dispense [dis'pens] готувати, розфасовувати (ліки)
gather ['gæðə] збирати (трави, рослини)

herb [hɜ:b] трава (лікарська)
identify [ai'dentifai] встановлювати, розпізнавати, ідентифікувати
infusion [in'fju:ʒən] настій
modify ['mɒdifai] модифікувати, видозмінювати
plant [plɑ:nt] рослина; завод
preventive [pri'ventiv] профілактичний
qualitative ['kwɒlitətiv] якісний
store [stɔ:] зберігати
storage ['stɔ:riʤ] зберігання; сховище
technique [tek'ni:k] техніка; методика
variety [və'raiəti] сорт, вид, різновид
vegetable ['veʤitəbl] рослинний; (pl.) рослини (загальна назва)

Exercise 2. Read the title of the text and say what this text is about.

Exercise 3. Read the text and do all exercises following it.

English Prescription

The language of prescription was **unique**[1] in Great Britain some half a century ago when all the names of drugs were latinized. It was possible because the physician used only dosed drugs. Today all prescriptions are written in English. The only Latin which is used is few traditional **abbrevations**[2] in the direction to the pharmacist and on the label.

A more serious problem is the naming of drugs. In the old days, drugs had only one official name and drug companies did not have many trade names. At present, each drug has at least three names. They are the chemical name, the so-called **generic name**, and **trade name**[3]. The chemical name is difficult to use and remember except for the simplest drugs because of its length and complexity.

The trade or brand name is the **private property**[4] of the drug company and **is copy right**[5]. Most drugs have several trade names because each company producing the drug gives it a different name. It is common practice **to capitalize**[6] the first letter of a trade name.

The generic or official name is shorter than the chemical name. It is public property and any drug manufacturer may use it. There is only one generic name for each drug. The majority of physicians use trade names in prescriptions. Generic name should be used as the language of prescription. It is known to the specialists of medicine and pharmacy and it is not known to general public. For example, ampicillin is the generic name of a well known antibiotic; alpha-aminobenzyl P – its chemical name; Omnipen, Penbritin, Polycillin, etc. are its trade names.

Dosage. **It goes without saying**[7] that a prescription cannot be written without a very good knowledge of the dose effects of drugs. Each drug has its own **dose specification**[8] dependent on pharmacological properties, metabolism of the drug. It should have the following information:

1. Name and address of the physician and his telephone number. The title M.D. (Medical Doctor) should follow the physician's name to indicate that he or she is a physician.
2. Usually at the top – patient's name, address, age and the date.
3. Symbol R_x. This is about the same as "Dear Sir" on top of a letter. It comes from Latin and means a command for a patient "you take".
4. The body of the prescription contains the name of the drug and the dose.

5. Under the body of the prescription should be written the directions to the pharmacist. It is called subscription. In modern prescriptions it consists only of the form of the medicine (powder, tablet, capsules, etc.) and the number of units.

6. The directions to the patient as to how he should take the medicine. It is called the label or "signature".

Notes:

[1]unique [ju:ˈni:k] унікальний
[2]traditional abbreviations – традиційні скорочення
[3]generic name and trade name – офіцінальна (фармакопейна) та торгова назва
[4]private property – приватна власність
[5]is copy right – на неї (назву) розповсюджується авторське право
[6]to capitalize – писати з великої літери
[7]it goes without saying – нічого й говорити
[8]dose specification – інструкція з дозування

Exercise 4. Read the Latin codes and their equivalents used in English prescriptions. Translate them into Ukrainian.

a.c. – before meals
h – hour
i – one or one time
ne.rep. (n.r.) – means to the pharmacist that the prescription is not to be repeated
p.r.n. – as needed
Sig. – signature
i.i.stat. – two tablets at once
i.q. 4h. – one capsule every 4 hours
in – mix
tabs – tablets
t.i.d. – three times a day
i.d. – once a day

Exercise 5. Complete the sentences with the necessary words from the text.

1. The trade name is usually known to the specialists of medicine and isn't known to .... 2. Generic names are known to the specialists of ... and ... . 3. The body of the prescription contains ... . 4. ... drugs had only one official name. 5. Chemical names are difficult ... , hard ... , and difficult ... . 6. A prescription cannot be written without a very ... knowledge of the dose effect of the drug.

Exercise 6. Discuss the text answering the questions.

1. In what language are prescriptions written in Great Britain? 2. Is Latin used in prescriptions at present? 3. How many names does a drug possess? 4. What name of the drug is difficult to use and remember? 5. Why are trade names of drugs mostly selected? 6. What drug names are not known to general public? 7. On what does the dose of a drug depend? 8. What does the title M.D. in prescription indicate? 9. Are the name and address of the physician written on a prescription? 10. How many parts does a prescription consist of? 11. What medicinal forms are known to you? 12. In what language are indications to drug administration written? 13. What is the difference between English and Ukranian prescriptions?

Exercise 7. Read the examples of the following English prescriptions, translate the codes (see Exercise 1).

Prescription I

Tel. ER 5 – 600 *Reg. No.198*
Rupert Black, M.D.
230 Broad Street
Philadelphia 1, Philadelphia[1]
Name: Mrs. Anna White, age 45
Address: 619 Locust Street, Philadelphia, Philadelphia
Tabs, Thyroid USP 30 ng[2]
Dispense: 60
Sig. Tabs.i.t. i.d.a.c.
Rupert Black, M.D.
ne.rep.

Prescription II

Tel. ER 5 – 600
Rupert Black, M.D.
230 Broad Street
Philadelphia 1, Philadelphia
Name: Mrs. John W. Keyes, age 30
Address: 525 East, 68th Str., New York, New York 10021
R_x Theophylline 3 gm
Ephedrine Sulfate 0.6 gm
Phenobarbital 0.6 gm
M. Divide into 30 capsules
Sig. Cap. i. of 4 h. p.r.n.
Rupert Black, M.D.
ne.rep.

Prescription III

Tel. ER 5 – 600
Rupert Black, M.D.
230 Broad Street
Philadelphia 1, Philadelphia
Name: Mr. Thomas A. Ports, age 29
Address: 11 Maffit. Str. San Francisco, California 94143
R_x Potassium Penicillin G 250000 units
Dispense: 60
Sig. Tabs. i.i.stat, then Tabs i.q. 4h.
Rupert Black, M.D.

Notes:

[1]Philadelphia, Philadelphia – місто Філадельфія штату Філадельфія
[2]ng (nanogram) – нанограм, одна мільярдна частка грама

Control Tests. Urinary and Reproductive Systems

1. What science studies the functions and diseases of the organs of the urinary system?
   A. Myology
   B. Urology
   C. Neurology
   D. Nephrology
   E. Gynecology

2. What specialist treats kidney diseases?
   A. Neurologist
   B. Neuropathologist
   C. Urologist
   D. Psychologist
   E. Nephropathologist

3. What department are patients with urinary disorders treated in?
   A. Surgical
   B. Urological
   C. Therapeutic
   D. Neurological
   E. Dermatological

4. This function the urinary system doesn't fulfill.
   A. Control of the volume of blood and other fluids
   B. Control of arterial pressure
   C. Coagulation of blood
   D. Excretion of waste products
   E. Production of blood

5. What is the structural unit of the kidney?
   A. Acinus
   B. Neuron
   C. Nephron
   D. Urine
   E. Hormone

6. What organ doesn't belong to the urinary system?
   A. Urine
   B. Urethra
   C. Ureter
   D. Kidney
   E. Bladder

7. What shape does the kidney have?
   A. Bean
   B. Pear
   C. Ball
   D. Conic
   E. Horn

8. What regulates the work of the kidney?
   A. Heart
   B. Head
   C. Abdomen
   D. Hypothalamus
   E. Muscles

9. What is the length of the ureter?
   A. About 1 meter
   B. About 50 cm
   C. About 40 cm
   D. About 80 cm
   E. About 30 cm

10. Where are the kidneys situated?
   A. In the cranium
   B. Behind the abdominal cavity
   C. In the lower part of the abdomen
   D. In the front part of the abdomen
   E. On the left side

11. Where is the bladder situated?
   A. In the upper part
   B. Under the stomach
   C. Under the liver
   D. Behind the heart
   E. In the lower part of abdomen

12. What does the term "polyuria" mean?
   A. Low discharge of urine daily
   B. High discharge of urine daily
   C. Normal discharge of urine daily

D. Abnormal discharge of urine daily
E. Absence of discharge of urine

13. What does the term "hematuria" mean?
A. The blood in the urine
B. Bleeding
C. Urine in the blood
D. Disease of the urinary tract
E. Condition

14. What does the term "uremia" mean?
A. The blood in the urine
B. Bleeding
C. Urine in the blood
D. Disease of the urinary tract
E. Condition

15. What does "diuresis" mean?
A. Formation of urine
B. Micturition
C. Discharge of urine
D. Volume of urine
E. Daily dose of urine

16. With what can kidney be compared according to its function?
A. Bean
B. Fungi
C. Sponge
D. Filter
E. Pelvis

17. An examination of urine is ___.
A. dialysis
B. hemolysis
C. hydrolysis
D. urinalysis
E. enuresis

18. Protein found in the urine.
A. Glucosuria
B. Pyuria
C. Albuminuria
D. Acetonuria
E. Hematuria

19. What does the urinary bladder serve for?
A. Temporary collection of urine
B. Formation of urine
C. Formation of water
D. Collection of stones
E. Discharge of waste products

20. What is pyelitis?
A. Inflammation of the bladder
B. Inflammation of the kidney
C. Inflammation of the ureter
D. Inflammation of a kidney pelvis
E. Inflammation of the urethra

21. Displacement of the kidney.
A. Renal necrosis
B. Renal ectopia
C. Renal calculi
D. Renal stones
E. Renal pelvis

22. Cuplike divisions in the renal pelvis are called ___.
A. alveoli
B. calyces
C. tiny tubules
D. nephrons
E. cells

23. Abnormal (small) amount of urine flow.
A. Uremia
B. Oliguria
C. Polyuria
D. Anemia
E. Anuria

24. What isn't a translation of the word "хвороба"?
A. Sickness
B. Illness
C. Disorder
D. Disease
E. Health

25. Where does the urine go from the renal pelvis?
A. To the urethra

B. To the ureter
C. To the bladder
D. To the blood
E. There is no right answer

26. The doctor who treats diseases of the female sex organs is ___ .
A. obstetrician
B. gynecologist
C. urologist
D. pathologist
E. surgeon

27. What organ doesn't belong to the male reproductive system?
A. Scrotum
B. Penis
C. Ovary
D. Testis
E. Prostate

28. What organ doesn't belong to the female reproductive system?
A. Testicle
B. Ovary
C. Uterus
D. Vagina
E. Placenta

29. The female sex hormone is ___ .
A. thyroidin
B. insulin
C. pepsin
D. adrenaline
E. progesterone

30. The male semen is ___ .
A. ovum
B. cell
C. milk
D. spermatozoon
E. blood

31. The inflammation of the male sex internal organ is ___ .
A. urethritis
B. cystitis
C. hepatitis
D. colpitis
E. prostatitis

32. A woman who is expecting a child is a ___ woman.
A. patient
B. pregnant
C. doctor
D. obstetrician
E. nurse

33. What does the term "fertilization" mean?
A. Запліднення
B. Обмін речовин
C. Сечоутворення
D. Менструація
E. Період статевого дозрівання

34. What does the term "menopause" mean?
A. Arrest of bleeding
B. End of the fertile period
C. Beginning of the fertile period
D. Bleeding
E. Menstruation

35. What is the synonym of the word "childbirth"?
A. Metabolism
B. Death
C. Birth
D. Delivery
E. Contraception

36. Egg cell is a ___ .
A. oocyte
B. thrombocyte
C. lymphocyte
D. leukocyte
E. erythrocyte

37. A period of production of milk is ___ .
A. nutrition
B. respiration

C. pregnancy
D. lactation
E. digestion

38. The tubules in the testes that make sperm cells are called ___ .
A. lacrimal
B. nasal
C. salivary
D. seminiferous
E. sexual

39. Ectopic pregnancy is ___ .
A. pregnancy in the uterus
B. pregnancy in the fallopian tube
C. pregnancy which is not in the uterus
D. abortion
E. fertilization

40. A synonym of the word "sterilization" is ___ .
A. fertilization
B. castration
C. ejaculation
D. reproduction
E. inflammation

41. The science which studies poisons is ___.
A. etiology
B. toxicology
C. gynecology
D. urology
E. dietology

42. What is the Ukrainian for "embryo"?
A. Плід
B. Запліднення
C. Безпліддя
D. Зародок
E. Викидень

43. What is the main function of the reproductive system?
A. To produce hormones
B. To control other systems
C. To reproduce human beings
D. To regulate metabolism
E. To show the difference between men and women

44. The male pelvis differs from the female pelvis in ___ .
A. size and shape
B. shape
C. color
D. number of bones
E. size

45. What develops during pregnancy in the uterine wall?
A. Child
B. Embryo
C. Placenta
D. Fetus
E. Ovum

46. What is the term of pregnancy in women?
A. 30 weeks
B. 32 weeks
C. 36–40 weeks
D. 38–40 weeks
E. 40 weeks

47. What does the term "gestosis" mean?
A. Symptoms of pregnancy
B. Pathological condition in pregnancy
C. Normal condition in pregnancy
D. Abnormal symptoms
E. Normal symptoms

48. The action of the nurse in acute abdomen of a patient.
A. To count the pulse
B. To take BP
C. To make injection
D. To advice to consult a doctor
E. Hospitalization

49. What must you do first in case of eclampsia?
A. To call in a doctor
B. To give oxygen
C. To make injection
D. To give medicine
E. To check BP

50. What is a synonym of the term "spermatozoon"?
A. Flower
B. Fruit
C. Vegetable
D. Semen
E. Leaf

II. Independent Work: Medical Plants

Exercise 1. Read the text.

Nature's Medicines

1. My own interest in herbs began many years ago when I worked on a ranch and noticed that many of the ranchers and their families often used various plants in the treatment of certain diseases. This made a deep impression on me and when I moved to the city I began searching for herb books and other related literature in order to learn as much as possible about use and history of medical plants. After reading and studying the available material I spent several years collecting rare, old, **out-of-print medical herbals**[1] and made the acquaintance of many herbalists. I made several large albums containing the information learned from these herbalists and then began sorting the material and comparing it with the information contained in the current published materials and out-of-print medical herbals.

2. Many of our most useful drugs were known in antiquity long before the development of sciences. For example, the word "opium" comes from Greek. It is described as the dried material from unripe seed capsules of the opium poppy, *Papaver somniferum*. The alkaloids of opium constitute about 25 % by weight, and there are over 20 of them. However, only four – morphine, codeine, papaverine, and noscapine (narcotine) – have medical uses. Opium relieves pain and promotes sleep and induces a general feeling of peace and well-being. Its psychological effects were known to the **ancient Babylonians**[2] and it was used in Egypt. In ancient Greek and Roman cultures it was used as a sleeping drug.

In 1803 a German pharmacist, Sertürner, isolated the chief alkaloid from opium and called it morphia (after **Morpheus, the Greek god of dreams**[3]). Sertürner showed by experiments on dogs that most of the narcotic activity of opium depended upon morphine. It was the first alkaloid that was isolated from a plant. Shortly after strychnine, caffeine, atropine, etc. were separated as pure crystalline alkaloids.

3. The next widely used plant that was known to man 5000 years ago is garlic. At present it is used in the treatment of many diseases in a pure state or as a compound or mixture.

Garlic was well known in ancient Egypt and thousands of slaves working on the great **Cheops pyramid**[4] used garlic in food daily.

In Bulgaria there is a surprising number of people who reach the age of 100 and are still active and working. In that country **it is a common practice**[5] among the ordinary people to eat garlic regulary.

Dioscorides, a Greek physician of the second century **who accompanied the Roman armies**[6] as their official physician, prescribed garlic for all **lung and intestinal diseases**[7] occuring among the soldiers. Hippocrates added that it was effective as a **laxative and diuretic**[8].

During World War II, thousands of tons of garlic were bought by the British government for treating the wounds of soldiers.

Investigations by Russian scientists have made garlic oil so popular in their country that it is named Russian Penicillin.

Due to modern laboratories it can now be shown exactly how garlic affects microbes.

It is well known that garlic is therapeutically useful for the following purposes: it is a powerful agent in preventing diphtheria, typhus, tuberculosis, pneumonia; it is useful in all respiratory infections, especially in symptoms of a dry **hacking cough**[9], **in colds**[10], asthma and bronchitis and in many other cases. It is an excellent nerve tonic.

Notes:

[1]out-of-print medical herbals – букіністична література про лікарські рослини
[2]ancient Babylonians – древні жителі Вавілону
[3]Morpheus ['mɔ:fiəs], Greek god of dreams – Морфей, у грецькій міфології бог сновидінь
[4]Cheops pyramid ['ki:ɒps'pirəmid] піраміда Хеопса
[5]it is a common practice – прийнято
[6]who accompanied the Roman armies – який супроводжував римські війська
[7]lung and intestinal diseases – легеневі та кишкові захворювання
[8]laxative and diuretic – проносне та сечогінний засіб
[9]hacking cough ['hækiŋ'kɔ:f] частий, короткий кашель; покашлювання
[10]in colds – при застудах

Exercise 2. Complete the sentences with the necessary expressions according to the text.

1. The first part of the text deals with: a) the history of medicinal plants; b) the information contained in printed materials; c) the author's interest in the botany of medicinal plants.

2. The second part of the text deals with: a) the medicinal effects of some plants; b) the history of opium; c) the narcotic activity of opium.

3. The third part of the text deals with: a) the cultivation of garlic; b) the use of garlic with medicinal purposes; c) the effect of garlic in the treatment of certain diseases.

Exercise 3. Find completed sentences, finish uncompleted.

1. Dioscorides, a Greek physician of the second century who accompanied the Roman armies

2. Dioscorides, a Greek physician of the second century accompanied the Roman armies

3. Dioscorides, a Greek physician of the second century accompanied the Roman armies and was their official physician

4. Dioscorides, the official physician of the Roman armies, who accompanied them as their official physician prescribed

5. The British government bought for treating the wounds of soldiers

6. Investigations on garlic made by Russian scientists

Exercise 4. Answer the following questions. What is your point of view on these problems?

1. Is the idea of the text about the use of medicinal plants modern? 2. Is it news to you that many centuries ago garlic was used as a drug? 3. How long have people used opium alkaloids as a drug? 4. Are opium alkaloids always used as a drug at present? 5. Is opium poppy cultivated in our country?

UNIT THIRTY-SEVEN

Testing Times (Залік)

Here are some examples of the Test. If you want, you can use the following material to test your students, or you can make up your own tests.

Variant 1

1. Name the main functions of the skeletal system.

2. Translate the clinical terms concerning the digestive system and explain the terms in Ukrainian.

Ulcer, colitis, gastritis, esophagotomy, stomach.

3. Open the brackets and translate the sentences. Ask questions based on each one.

a) Neuron is at least the smallest *(cell, sell)* of nervous system.

b) The axon *(carries, carriers)* the impulse away from the cell body.

c) The doctor who treats nervous diseases is called *(psychotherapeutist, neurologist).*

4. Match the words and their translation.

ventricle	перегородка
auricle	клапан
valve	шлуночок
septum	передсердя
myocardium	серцевий м'яз

5. Find non-finite forms of the verb, name them, translate the sentences.

– Smoking is harmful for your lungs.

– This surgeon was busy operating twice a week.

6. Translate into English.

a) У палаті не було хворих.

b) Потерпілого доставили в лікарню годину тому.

c) Мені подобається, як цей лікар обстежує хворих.

d) Це захворювання може виникнути у чоловіків після 50 років.

Variant 2

1. Name the main parts of the alimentary tract.

2. Translate the clinical terms concerning the respiratory system and explain the terms in Ukrainian.

Pneumonia, laryngitis, bronchitis, tongue, asthma.

3. Open the brackets and translate the sentences. Ask questions based on each sentence.

a) The cardiovascular system is the system of *(blob, blood).*

b) The *(heard, heart)* is the central organ of the circulatory system.

c) The blood is returned to the heart by means of *(wines, veins).*

4. Match the words and their translation:

scrotum	чоловічий статевий член
spermatozoon	калитка
prostata	сперматозоїд
male urethra	чоловічий сечівник
penis	передміхурова залоза

5. Find non-finite forms of the verb, name them, translate the sentences.

– We looked at the operated patient.

– Treatment of injures or diseases by operating is the subject of surgery.

6. Translate into English.

a) Якщо студенти прослухають лекцію уважно, вони зможуть застосувати знання на практиці.

b) Мені набридло його слухати.

c) Велике коло кровообігу починається з лівого шлуночка і закінчується у правому передсерді.

d) Лікар порадив хворому продовжити лікування.

Variant 3

1. Name the main functions of the cardiovascular system.

2. Translate the clinical terms concerning the respiratory system and explain the terms in Ukrainian.

Tracheitis, rhinitis, pleuritis, cancer of the lungs, pleura.

3. Open the brackets and translate the sentences. Ask questions based on each sentence.

a) The male reproductive system includes the scrotum, the prostate *(gland, glance)* and the penis.

в) The spermatozoon is the male sex *(cell, sell).*
c) The *(scrotum, sack)* keeps testicles outside of the male body.

4. Match the words and their translation.

pituitary	щитовидна
thymus	шишкоподібна
adrenal	гіпофіз
pineal	надниркова
thyroid	загрудинна

5. Find non-finite forms of the verb, name them, translate the sentences.
– Operating is not a simple thing.
– While operating he found a disorder of her right kidney.

6. Translate into English.
a) Клітини формують органи, а органи об'єднуються у системи.
b) Лікар порадив пацієнту вживати ці ліки тричі на день.
c) Ці ліки однаково діють на нервову систему людини.
d) Він завжди хотів стати хірургом.

Variant 4

1. Name the main organs and units of the cardiovascular system.

2. Translate the clinical terms concerning the digestive system and explain the terms in Ukrainian.
Dens, pharyngitis, dysenteria, proctitis, cancer of the stomach.

3.Open the brackets and translate the sentences. Ask questions based on each sentence.
a) The external reproductive organs are *(breasts, breads)* in women.
b) The organ of communication between the mother and the embryo is the *(place, placenta).*
c) The vulva includes the vulvar lips, *(clitoris, clerical)*, the vaginal and urethral orifices.

4. Match the words and their translation.

expiration	дихання
breathing	вдих
inspiration	видих
lungs	носова порожнина
nasal cavity	легені

5. Find non-finite forms of the verb, name them, translate the sentences.
– She saw the surgeon to enter the operating room.
– Dressing the wound of the patient the nurse was very attentive.

6. Translate into English.

a) Вона порадила хворому залишатися в ліжку протягом тижня.

b) Операція пройшла успішно.

c) Під дією шлункового соку і ферментів їжа розщеплюється.

d) Нирки – квасолеподібні органи, що розміщені за очеревиною.

Variant 5

1. Describe the structure and function of the heart.

2. Translate the clinical terms concerning the urinary system and explain the terms in Ukrainian.

Gout, pyelonephritis, goiter, glomerulonephritis, cancer of the kidneys.

3. Open the brackets and translate the sentences. Ask questions based on each sentence.

a) At first the air enters through the *(nose, noose)*.

b) The pleura envelopes each *(lane, lung)*.

c) *(Air, Ear)* reaches the larynx and then it goes through the trachea into the bronchial tree.

4. Match the words and their translation.

oral cavity	печінка
liver	шлунок
stomach	кишка
intestine	слина
saliva	ротова порожнина

5. Find non-finite forms of the verb, name them, translate into Ukrainian.

– It is possible to get AIDS by giving blood.

– The drug produces no side effects and can by all means be recommended.

6. Translate into English.

a) Артерії несуть кров від серця, а вени несуть її до серця.

b) Сечовина утворюється в печінці з амонію.

c) Клімат і навколишнє середовище – важливі фактори для здоров'я людини.

d) Під час проведення операцій хірургу допомагала медсестра.

Variant 6

1. Name all endocrine glands.

2. Translate the clinical terms concerning the nervous system and explain the terms in Ukrainian.

Amnesia, neuritis, radiculitis, anosmia, brain.

3. Open the brackets and translate the sentences. Ask questions based on each sentence.

a) The alimentary canal begins at the *(mouse, mouth)* and ends at the anus.

b) The *(leaps, lips)* form the opening to the oral cavity.

c) Through the *(larynx, pharynx)* and esophagus the food goes into the stomach.

4. Match the words and their translation.

joint	зв'язка
cartilage	кістка
bone	череп
ligament	суглоб
skull	хрящ

5. Find non-finite forms of the verb, name them, translate the sentences.

– I must have eaten something wrong.

– The operating nurse came into the operating room.

6. Translate into English.

a) Я вірю, що він хороший хірург.

b) У статті ми ознайомились із сучасними досягненнями медицини в області інфекційних захворювань.

c) Якби я був на твоєму місці, я проконсультувався б у лікаря-дерматолога.

d) Ми спостерігали за проведенням операції півтори години.

TEXTS FOR FURTHER READING

I. Read and translate the texts.

II. Read the words and word combinations to the texts.

Text 1. *Hippocrates*

Hippocrates was born in 460 or 459 B.C. on the small island of Cos. Hippocrates lived a long life and although the date of his death is not known with accuracy, it was probably 377 or 356 before our era.

He appeared to his contemporaries and to posterity surrounded by an aureole of glory. Aristotle called him "Hippocrates the Great"; Galen regarded him as "the wonderful inventor of all that is beautiful".

He was certainly not only the wisest and the greatest practitioner of his art, but also the most profound investigator and acute observer; he was the head of the most flourishing medical school of his age, who gathered about him many pupils and spread his teaching throughout the Greek world and even beyond.

Hippocrates freed medicine from superstition. He established the facts that disease was a natural process, that its symptoms were the reactions of the body to the disease and that the chief function of the physician was to aid the natural forces of the body.

Hippocrates was not the sole author of the hundred or more books which make up the collection, but that does not detract from their value as he certainly inspired them all. Quotations from the books, which are generally acknowledged to be most truly Hippocratic, illustrate what were the ideas and ideals, the methods and procedures which inspired the great physician.

Notes:
to appear [ə'piə] здаватися
contemporary [kən'tempərəri] сучасник
posterity [pɒs'teriti] нащадки
aureole ['ɔ:riəʊl] of glory – ореол слави
wise [waiz] мудрий
profound investigator – глибокий дослідник
acute observer – проникливий спостерігач
to flourish – процвітати
beyond – за межами
superstition – забобон
sole author – єдиний, винятковий автор
quotation [kwəʊ'teiʃn] цитата
truly ['tru:li] точно; справді; імовірно

Text 2. *A Scientist of Genius*

Mykola Pyrohov was called a scientist of genius even in his lifetime. His career as a researcher, excellent surgeon and clinician was tempestuous. At 18 he graduated from Moscow University; at 22 he became a Doctor of Science; at 26 he was a Professor at Dorpat (now

Tartu) University, one of the largest in Europe; and at 30, he headed Russia's first surgery clinic. During his first 30 or so years in surgery he started a new trend in the study of human anatomy and physiology, based on fundamentally newest methods.

His major research works in this field contributed enormously to world science. To this day, Pyrohov's methods are among the basic methods in the study and teaching of anatomy.

Pyrohov's life was dedicated to people. He was a field surgeon during four wars (in the Caucasus in 1847, in the Crimea in 1854, in the Franco-Prussian war in 1870, and in the Russo-Turkish war in 1877), selflessly saving the lives of the wounded in the most difficult of conditions.

He in fact created a new medical science, field surgery, and suggested new, rational principles for the grouping, distribution and evacuation of the wounded. His work, "Fundamentals of Field Surgery" (1864), had soon become a reference book for field surgeons in all countries.

He formulated some of the most important principles of treating gunshot wounds, fractures, shock and wound infections, and developed the most ingenious methods of performing operations.

He was also the first to apply, on a large scale, plaster of Paris bandages in field conditions (in Sevastopol, during the Crimean war), which was a revolution in field surgery. Almost 90 years later, during the Great Patriotic War, the Pyrohov plaster of Paris was still widely used during the heroic defence of Sevastopol, and on all other fronts, helping to save the lives of many thousands of soldiers.

Pyrohov had a phenomenal capacity for work, which enabled him to do a great deal in all spheres of surgery. He also developed classical, world-acknowledged methods of operations and treatment in ophthalmology, urology, and other fields. Many of those methods are applied even now, and one of them, the so-called Pyrohov amputation (a conservative-restorative operation on the extremities), marked the beginning of osteoplasty, giving a powerful impetus to the development of reconstructive surgery.

Genuinely compassionate with the sick and the wounded, Pyrohov did all his efforts to find ways of relieving their suffering. He was among the first to realize the importance of general anesthesia and to apply narcosis, doing all he could towards its introduction into surgery. He firmly believed that narcosis not only relieved pain, but created the optimum conditions for keeping up the patient's vital functions during an operation.

Text 3. ***Robert Koch***

Robert Koch was a prominent German bacteriologist, the founder of modern **microbiology**[1]. He was born in 1843, died in 1910. When Koch became a doctor he **carried**[2] on many experiments on **mice**[3] in a small laboratory. In 1882 Koch discovered tuberculosis **bacilli**[4]. In his report made in the Berlin Physiological Society Koch described in detail the morphology of tuberculosis bacilli and the ways **to reveal**[5] them. Due to his discovery Koch became known all over the world. In 1883 Koch went to Egypt to study **cholera**[6]. At that time there was a widespread epidemic of cholera. Nobody knew the **origin**[7] of this disease, there were not any **protective measures**[8] against it.

The disease spread very rapidly from one place to another and thousands of healthy people died. But sometimes some people who were in a constant contact with the diseased person did not **catch**[9] cholera. Koch carried out his investigations during the cholera epidemic in Egypt and then in India.

In 1884 Koch published his book on cholera which included the investigations of his research work. From the **intestines**[10] of the men with cholera Koch isolated a small **comma-shaped**[11] bacterium. He determined that these bacteria spread through drinking water. In 1905 Koch got the Nobel prize for his important scientific discoveries.

Notes:

[1] microbiology [ˌmaikrəʊbaiˈɒlədʒi] мікробіологія
[2] to carry out – проводити
[3] mouse (pl. mice) – миша
[4] bacilli [baˈsilai] бацили
[5] to reveal – виявляти
[6] cholera [ˈkɒlərə] холера
[7] origin [ˈɒridʒin] походження
[8] protective measures – захисні заходи
[9] to catch [kæʧ] захворіти, заразитися
[10] intestines [inˈtestinz] кишки
[11] comma-shaped – подібний за формою до коми

Text 4. *I.I. Mechnikov*

I.I. Mechnikov was born in 1845 in the village of Ivanivka, not far from the city of Kharkiv.

Since his early childhood I.I. Mechnikov had become interested in natural sciences; being a pupil of the sixth form he began to attend a course of university lectures delivered by the prominent physiologist of those days, Professor Schokov.

I.I. Mechnikov graduated from Kharkiv University when he was only 19 years old. While studying at the University he published several scientific articles in zoology. In 1870 at the age of 25 I.I. Mechnikov became one of the leading professors of Odessa University. But twelve years later, in 1882 he left the University demonstrating his protest against the tzarist ministry of education. He began his intense research work in his private laboratory. In 1887 I.I. Mechnikov went abroad and spent almost 30 years in Paris as a worker at the Pasteur Institute.

I.I. Mechnikov was the first to observe the phenomenon of phagocytosis in experiments with lower animals. Once I.I. Mechnikov was examining daphnia through the microscope. He observed bacteria in the form of a long stick enter the body of daphnia. At the same moment they were surrounded by the movable cells of the animal's body and destroyed by them.

I.I. Mechnikov took great interest in this phenomenon and began his regular observations, which enabled him to see clearly that every time the movable cells were not able to destroy the invading microbes daphnia became ill and finally perished. On the basis of his observations I.I. Mechnikov proved that white blood cells of the human being had the ability to pass through the walls of the capillary vessels and to destroy the invading microbes. I.I. Mechnikov called these cells phagocytes and the phenomenon itself phagocytosis. I.I. Mechnikov also determined what defence forces the human body had and why not every bacterial infection resulted in a disease.

In 1908 I.I. Mechnikov received the Nobel Prize for his investigations on phagocytosis.

I.I. Mechnikov performed considerable work on the effect of lactic acid on bacteria and its counteracting intestinal poisons and devoted many years of his life to the problem of aging (старіння).

I.I. Mechnikov died in 1916 at the age of 71.

Text 5. *Prominent Scientists and Physicians of Ukraine*

Well-known Ukrainian scientist O.M. Shumlyansky was the prominent anatomist-microscopist of the 18th century. He was the first who discribed the kidney **texture**[1].

O.M. Shumlyansky was born in 1748 in the village Yakivtsi of Poltava region. His father was a Ukrainian Cossack-peasant. He graduated from the medical school in Petersburg and worked as a surgeon. Then he went abroad where he improved his education in the field of obstetrics and received his doctor's **degree**[2].

After his returning to Russia O.M. Shumlyansky became a professor of the medical surgical school in Moscow. He was the author of many **research**[3] works in the fields of surgery and **obstetrics**[4].

Prominent surgeon and scientist M.V. Skliphosovsky (1836–1904) was born in Moldova and **was brought up**[5] in a **charity school**[6] in Odesa. After successful graduating from the University he wrote his **thesis**[7] and became a professor of the Medical Academy in Petersburg. He was one of the organizers of the surgical school in Russia.

M.V. Skliphosovsky liked Ukraine and often visited Odesa and other Ukrainian cities. In 1871 he bought an **estate**[8] in the **outskirts**[9] of Poltava and rested there in summer. Then he removed to Poltava and worked as a physician at the regional hospital. It should be noted that he took care of poor people. He treated them free of charge and tried to create **favorable conditions**[10] in the hospital. A new school was built for poor children on his initiative and his daughter was a teacher there.

In his estate he cultivated his orchard and worked there being in old age.

Outstanding clinicist and scientist of Ukraine M.D. Strazhesko (1876–1952) was an initiator in establishing Kyiv Institute of Clinical Medicine and worked there as an academician during a long period. Under the **supervision**[11] of his teacher prof. V.P. Obraztsov he was the first to differentiate and describe the clinical picture of myocardial infarction.

M.D. Strazhesko was the author of many classical works describing cardiac and **abdominal diseases**[12]. He used Pavlov's scientific ideas in his clinic. In his research work he used the scientific data from biochemistry, microbiology, physiology and other sciences. He paid much attention to the clinical research of his patients.

Together with his teacher V.P. Obraztsov they worked out a new method of **sliding palpation**[13] of the abdominal cavity organs that **won** the world **recognition**[14].

Notes:

[1] texture ['tekstʃə] тканина
[2] degree – звання, ступінь
[3] research [rɪ'sɜ:tʃ] наукове дослідження
[4] obstetrics – акушерство
[5] to bring (brought) up – виховувати
[6] charity school ['ʧæriti,sku:l] школа для бідних дітей
[7] thesis ['θi:sis] дисертація
[8] estate [is'teit] маєток
[9] outskirts ['aʊtskɜ:ts] околиці; передмістя
[10] favorable conditions – сприятливі умови
[11] supervision [,sju:pə'viʒn] нагляд
[12] abdominal diseases – шлунково-кишкові хвороби

[13] sliding palpation – ковзна пальпація
[14] to win (won) recognition – здобути визнання

Answer the following questions:

1. What was O.M. Shumlyansky? 2. When and where was he born? 3. What school did he graduate from? 4. Where did he receive his doctor's degree? 5. Was he the author of many research works? 6. What was M.V. Skliphosovsky? 7. Where was he brought up? 8. When did he become a professor of the Petersburg Academy? 9. Where did he move then? 10. What did he do in Poltava? 11. What was M.D. Strazhesko? 12. Who was an initiator in establishing Kyiv Institute of Clinical Medicine? 13. Was he the author of many classical works? 14. What method did M.D. Strazhesko and his teacher V.P. Obraztsov work out?

Text 6. *Tibetan Medicine*

Tibetan medicine is very ancient. It was over thousands of years ago when the ancient treatise on medicine "Chjud-shi" was written.

At present the scientists study various books and ancient xylographs about Tibetan medicine. The methods of treatment used by Tibetans are different from modern medicine but the theoretical ideas are quite logical.

Tibetan doctors thought that: diseases were caused by the violation of the equilibrium of the main "vital sources"; a disease reflected the suffering of the entire human organism and not just a separate organ. They considered that it was necessary to treat the entire organism.

One of the factors causing diseases was food. They considered that food was useless and bad.

Tibetan doctors were gifted specialists. During the examination of patients they used different senses such as: vision, hearing, smell, taste and touch. To diagnose a disease they differentiated between 400 different hues of pulse and it was felt by the doctor on the patient's both arms. The chief postulate of Tibetan medicine was: "Everything that surrounds us may be used as a medicine". Tibetans made medicines from raw plants, animals and mineral materials. They used precious metals and stones. The doctors took gold, silver, emerald, pearls, etc. They also used insects and mollusks. They burned animals and used ash from their inner organs as a medicine for patients. They considered that such ash could contain useful substances necessary for the patient. Their medicines were not toxic for patients. They used various medical herbs for treating.

Tibetan medicine has helped modern medicine in treating different diseases. At present our doctors often use medical herbs as medicines.

Modern medicine has the same commandment as Tibetan medicine. It is "Do not harm".

Text 7. *Drugless Therapy*

Nowadays, doctors are known to widely use medicines to treat patients. But in a number of cases medicines may either be not quite effective or produce side effects resulting in serious complications. That explains a growing interest over the world in methods that have anti-allergic action.

Our doctors are known to have designed an effective system of completing cure in sanatoria. It comprises special physical exercises, psychotherapy, dietotherapy, and balneotherapy. Their use cuts the dosage of drugs many times over. As for the procedures, they only act upon a specific area, not on the organism as a whole.

Our research institutes seem to be contributing much to health resort treatment and physiotherapy. The institutes are located in different regions and do their own specific research. In Myrhorod, for example, they specialize in using drinkable mineral waters, in Odesa they study medicinal muds, etc.

Specialists elaborate scientific foundation for health resort treatment, study the mechanisms of physical factors, define indications and contraindications to health resort treatment, render different services and do many other things. Over the last few decades they have greatly expanded their knowledge about man and his diseases. They have got more technical research facilities, and now have a clearer picture of how different physical factors act upon the human organism. The medical profession's approach to treating illnesses has been changing. Today they are increasingly using methods of treatment that are easier on the patients than those used before.

They use microwave frequency electromagnetic fields to act upon endocrine glands to cure such diseases as systemic lupus erythematosus, rheumatism, female and male infertility, and bronchial asthma. By applying electromagnetic fields to the thyroid gland they can cure ulcers. This kind of treatment is much more effective than drug therapy. While drug therapy produces 50 to 60 per cent successful treatment of an ulcer, this method is nearly 75 per cent effective.

They use sulphide water, carbonic acid gas, electrotherapy among other methods to treat patients. Good results have been obtained in treating arthritis and diseases of the peripheral nervous system.

Text 8. *Ecological Situation In Ukraine*

Improvement of ecological situation in Ukraine is a very important problem. The tragedy of the Chornobyl **disaster**[1] is the first fearsome **warning**[2] of the possibility of a coming ecological apocalypse.

In Ukraine there are many industrial enterprises which pollute our air, water and soil. Our rivers that used to be full of fish are **poisoned**[3]. The Black Sea and the Sea of Azov are polluted. One can find zinc, copper, mercury and others in our rivers and seas.

Many plants and factories have no nature-conserving technologies or they are not perfect. They have no possibility to buy these **cleaning constructions**[4] in spite of that they pay fines for their disorders.

The majority of Ukrainian population lives in ecological disaster zones or in ecologically **unfavorable conditions**[5]. The **sickness rate**[6] which is linked with the worsening natural **environment**[7] is rapidly rising.

The Supreme Soviet of Ukraine has adopted the decision on **urgent measures**[8] to improve the country's ecological situation.

The leaders of industrial enterprises must take personal responsibility for polluting our environment. At present much attention is paid to the improvement of sanitary conditions and treatment of our population at clinics and health resorts.

Urgent measures aimed to improve the ecological situation of the country should normalize the state of **affairs**[9].

Notes:

[1] disaster [di'zɑ:stə] катастрофа, лихо
[2] warning ['wɔ:niŋ] попередження, застереження
[3] to poison ['pɔizn] отруювати
[4] cleaning constructions – очисні споруди
[5] unfavorable conditions – несприятливі умови, оточення
[6] sickness rate – швидкість виникнення хвороби
[7] environment [in'vaiərənment] середовище
[8] urgent measures – невідкладні заходи
[9] affair – справа

Text 9

Part A. *Technology*

Scientists have designed an electronic "nose" that can identify stale crisps and even tell wine from champagne.

The Neotronics Olfactory Sensing Equipment, also known as NOSE, works on a similar basis to the human nose. Tiny **sensors**[1] respond electronically to different chemicals in the air. Sensors in the NOSE are much bigger than the human variety and it has just 12 of them, compared with the 10 000 possessed by the average human. But, according to the company that markets the device, NOSE can be **set up**[2] to detect various smells.

The NOSE can electronically compare a smell with a computer profile of the smell it is supposed to be smelling. This process takes just over a minute, after which time a "smell picture" comes onto the computer screen. If the computer draws a circle on the screen, it means that the correct sample has been tested.

The company that produces the NOSE expects that it will be used in industry for **quality control**[3] purposes. It could detect variations in different **batches**[4] of food and drink, for instance.

Notes:

[1] sensor ['sensə] an instrument which reacts to certain physical conditions or impressions such as heat, and which is used to provide information

[2] set up [set'ʌp] here, make the necessary preparations for something to be used in a certain way

[3] quality control ['kwɒlitikən'trəul] activity of checking that products are all of a satisfactory standard

[4] batch [bæʧ] group of things or people

Part B. *Diagnosis Made by Machine*

There is a small hall filled with clever machines at this Institute. The flicker of indicator lamps and figures on their panels showed that the machines were making complicated analytical computations. This is the laboratory of cybernetics where computing machines help the doctors

to make an accurate diagnosis of a great variety of diseases of the heart, blood vessels, lungs and stomach, after processing a vast stock of symptoms stored in their memory.

The mathematical methods of cybernetics have also enabled the physician to get more from the recordings made by cardiographic, phonographic and other diagnostic apparatuses and instruments. Their curves now tell much more about the condition of a patient than any individual doctor could.

The diagnostic machines at the Institute are linked by telegraph lines with some cities.

Part C. *Nicotine Replacement Therapy*

People trying to give up smoking may find it easier if they use nicotine patches.

Many doctors believe that tobacco is as addictive as drugs like cocaine or heroin. Nicotine is the addictive chemical ingredient in tobacco. However, it is other substances in cigarette smoke that cause heart disease, cancers and other conditions associated with smoking.

Nicotine replacement therapies allow smokers to break their habit of cigarette smoking without suffering nicotine withdrawal symptoms. These therapies are usually in the form of chewing gum or special skin patches which deliver the nicotine slowly through the skin.

The results of a study of 18 000 people from 11 countries suggest that skin patches are the best form of nicotine replacement therapy for general use. The team found that people using these are almost twice as likely to give up as those using **willpower**[1] alone.

Note:
willpower ['wil,paʊə] strong determination to do something

Text 10. *Cosmetics*

Face powder. Face powder is used to give the skin a pleasant appearance. The powder usually requires several ingredients to obtain proper appearance, sticking properties and absorbance. A typical formula is: talc – 65 %, precipitated chalk – 10 %, zinc oxide – 20 %, zinc stearate – 5 %, to which are added small amounts of perfume and coloring matter. Compact powders are similar to face powder with mineral oil or lanolin, and organic hydroxy compounds added as binders. They are pressed after mixing.

Lipstick. Lipstick consists of a solution or suspension of coloring agents in a mixture of high molecular weight hydrocarbons or their derivatives or both. The material must be soft to produce a good application on lips, yet the film must not be too easily removed: lipstick is perfumed to give an odor and pleasant taste. The color easily comes from a dye or from the cosine group of dyes. Two dyes used for the preparation of lipstick are: dibromofluorescein (yellow-red) and tetrabromofluorescein (purple). The ingredients in a typical formulation include: dye, which gives the lipstick color, 4–8 % castor oil, paraffin or fats which dissolve dye – 50 %, lapodin – 25 %, carnauba wax, beeswax, which raise the melting point of lisptick – 18 %, perfume, which gives it a pleasant taste – 1.5 %. Carnauba wax and beeswax are high molecular weight esters. Carnauba wax is extracted from the leaves of the Brazilian palm where it occurs externally on the leaves. The alcolols and acids hydrolysed from esters of beeswax contain 26 to 28 carbon atoms.

In the manufacture of lipstick the dye is added to the castor oil and then the waxes, lanolin and perfume are mixed with them. Then the mass is heated till a homogenous mixture is obtained. The mass is then put into suitable forms and after a number of other operations packaged.

Eye make-up. There are several types of eye make-up: eyebrow pencils, mascara for eyelashes and shading. Eyeshadow or shading which is now popular, was also very popular in ancient Egypt. Eyebrow pencils are very much like lipstick, but they contain a different coloring matter. The coloring matter is a pigment such as lampblack; the other ingredients include fats, oils, petrolatum, and lanolin, mixed to give the necessary melting point, which may be higher by the addition of beeswax or paraffin. Petrolatum is a semisolid mixture of hydrocarbons saturated and unsaturated with melting point 34° to 54°C. Brown pencils are made by using iron oxide pigments in place of lampblack.

Mascara is used to darken eyelashes and give them a longer appearance. The same colors as in eyebrow pencils are used as well as other mineral coloring matters such as chromic oxyde (dark green) and ultramarine (blue) pigment of various composition; a silicate with some sodium sulphide. The coloring matter is suspended in a mixture of oils, fats, waxes. The mascara may be water-soluble or water-resistant, depending upon the composition of the mixture. A typical formulation consists of about 40 per cent wax (beeswax, carnauba wax, and paraffin). 50 per cent soap (such as thriethanolamine), 5 percent lanolin and 5 per cent coloring matter.

Perfume. A perfume is a material containing one or more volatile constituens, which can produce aroma. The sense of odor is quite complex and the nose can distinguish a great number of different odors. The chemistry of perfumes is quite complex since it includes up to 5000 different natural or synthetic materials.

A typical perfume has at least three components of somewhat different volatility and molecular weights. The first, called the top note, is the most volatile and specific odour when the perfume is first applied. The second, called the middle note, is less volatile and is generally a flower extract (violet, lilac, etc.). The last or end note is least volatile and is usually a resin.

Note:
top note – високолеткі; початкова нота
end note – низьколеткі; кінцева нота

Most perfumes contain many components and chemically are often complex mixtures. As the analysis of natural perfume materials progresses the use of pure synthetic organic compounds which increase the number of specific odors becomes very common. Other compounds used in perfumes include high molecular weight alcohols and esters. Esters of these alcohols are used to make synthetic rose aromas for perfumes. For example, the ester formed by reaction between geraniol and formic acid has a rose-type odor.

Typical perfumes are 10 to 25 % perfume essence and 75 to 90 % alcohol. Perfumes are added to most cosmetics to give them a pleasant odor. They also mask the natural odor of their constituents. They are often mildly bactericidal and antiseptic.

ВІДПОВІДІ НА ТЕСТОВІ ЗАВДАННЯ

Lesson 39. Control Tests (рубіжний тестовий контроль знань студентів усіх відділень із загального догляду за хворими)

1.	D	11.	B	21.	E	31.	D	41.	B	51.	B
2.	D	12.	E	22.	C	32.	D	42.	D	52.	A
3.	D	13.	A	23.	B	33.	D	43.	A	53.	E
4.	D	14.	B	24.	B	34.	A	44.	B	54.	A
5.	B	15.	C	25.	A	35.	C	45.	B	55.	E
6.	B	16.	B	26.	E	36.	B	46.	A	56.	C
7.	C	17.	C	27.	D	37.	D	47.	B	57.	B
8.	C	18.	B	28.	B	38.	D	48.	C	58.	C
9.	C	19.	C	29.	B	39.	B	49.	B	59.	B
10.	B	20.	C	30.	C	40.	C	50.	C	60.	C

Unit 8. MUSCULOSKELETAL SYSTEM

1.	D	11.	E	21.	C	31.	C	41.	D
2.	A	12.	A	22.	A	32.	D	42.	B
3.	B	13.	A	23.	B	33.	C	43.	B
4.	D	14.	B	24.	B	34.	C	44.	B
5.	E	15.	B	25.	A	35.	D	45.	C
6.	D	16.	E	26.	D	36.	E	46.	A
7.	A	17.	D	27.	C	37.	E	47.	E
8.	B	18.	B	28.	B	38.	B	48.	A
9.	D	19.	A	29.	B	39.	A	49.	B
10.	B	20.	B	30.	A	40.	B	50.	C

Unit 12. CARDIOVASCULAR SYSTEM

1.	B	11.	A	21.	B	31.	D	41.	C
2.	B	12.	A	22.	E	32.	C	42.	C
3.	C	13.	D	23.	A	33.	B	43.	C
4.	A	14.	B	24.	C	34.	E	44.	E
5.	C	15.	D	25.	C	35.	A	45.	D
6.	C	16.	C	26.	B	36.	A	46.	D
7.	D	17.	D	27.	E	37.	B	47.	A
8.	A	18.	A	28.	A	38.	E	48.	A
9.	C	19.	C	29.	D	39.	B	49.	C
10.	D	20.	C	30.	A	40.	A	50.	E

Unit 16. RESPIRATORY SYSTEM

1.	A	11.	C	21.	D	31.	C	41.	C
2.	E	12.	B	22.	B	32.	B	42.	B
3.	C	13.	B	23.	E	33.	A	43.	D
4.	B	14.	D	24.	D	34.	A	44.	E
5.	C	15.	D	25.	D	35.	D	45.	A
6.	E	16.	E	26.	C	36.	D	46.	E
7.	C	17.	A	27.	A	37.	D	47.	A
8.	A	18.	E	28.	B	38.	A	48.	A
9.	E	19.	A	29.	D	39.	B	49.	B
10.	D	20.	C	30.	B	40.	C	50.	C

Unit 18. DIGESTIVE SYSTEM

1.	B	11.	B	21.	D	31.	E	41.	A
2.	B	12.	D	22.	B	32.	C	42.	E
3.	C	13.	C	23.	E	33.	D	43.	B
4.	A	14.	B	24.	A	34.	A	44.	A
5.	D	15.	D	25.	B	35.	B	45.	D
6.	A	16.	C	26.	D	36.	B	46.	A
7.	E	17.	D	27.	E	37.	C	47.	C
8.	E	18.	A	28.	C	38.	E	48.	D
9.	D	19.	C	29.	D	39.	D	49.	A
10.	A	20.	B	30.	A	40.	C	50.	E

Unit 23. NERVOUS SYSTEM. SENSE ORGANS

1.	C	11.	E	21.	A	31.	B	41.	E
2.	A	12.	A	22.	C	32.	C	42.	A
3.	D	13.	D	23.	D	33.	D	43.	B
4.	B	14.	B	24.	D	34.	A	44.	C
5.	D	15.	A	25.	B	35.	B	45.	B
6.	E	16.	E	26.	B	36.	C	46.	B
7.	A	17.	D	27.	C	37.	D	47.	B
8.	D	18.	B	28.	D	38.	A	48.	D
9.	C	19.	C	29.	C	39.	D	49.	A
10.	C	20.	E	30.	B	40.	C	50.	B

Unit 24. ENDOCRINE SYSTEM. CELL. PHYSIOLOGICAL FUNCTIONS OF THE ORGANISM

1.	B	11.	C	21.	B	31.	A	41.	C
2.	D	12.	B	22.	B	32.	D	42.	C
3.	E	13.	A	23.	E	33.	E	43.	E
4.	D	14.	C	24.	A	34.	E	44.	D
5.	C	15.	D	25.	C	35.	D	45.	C
6.	B	16.	E	26.	C	36.	C	46.	A
7.	A	17.	C	27.	C	37.	A	47.	D
8.	D	18.	B	28.	E	38.	E	48.	E
9.	C	19.	D	29.	B	39.	B	49.	B
10.	C	20.	D	30.	B	40.	A	50.	A

Unit 36. URINARY AND REPRODUCTIVE SYSTEMS

1.	B	11.	E	21.	B	31.	E	41.	B
2.	C	12.	B	22.	B	32.	B	42.	D
3.	B	13.	A	23.	B	33.	A	43.	C
4.	E	14.	C	24.	E	34.	B	44.	A
5.	C	15.	C	25.	B	35.	D	45.	C
6.	A	16.	D	26.	B	36.	A	46.	D
7.	A	17.	D	27.	C	37.	D	47.	B
8.	D	18.	C	28.	A	38.	D	48.	E
9.	E	19.	A	29.	E	39.	C	49.	A
10.	B	20.	D	30.	D	40.	B	50.	D

ГРАМАТИЧНИЙ ДОВІДНИК

ЧАСТИНА І

§ 1. Спонукальні речення

Спонукальні речення виражають наказ, прохання, бажання, дозвіл, пораду того, хто говорить. Такі речення можуть бути і стверджувальними, і заперечними. Заперечні речення виражають заборону.

У спонукальному реченні стверджувальної форми спочатку йде дієслово-присудок у наказовому способі (однакова форма для однини і множини):

Meet Eve. – Зустрінь Єву!
Зустріньте Єву!
Tell me. – Розкажи мені!
Розкажіть мені!

§ 2. Відмінювання іменників і займенників

В англійській мові іменник має два відмінки: загальний і присвійний. Присвійний відмінок утворюється додаванням до іменника **апострофа** і закінчення **-s**. Іменник у присвійному відмінку відповідає на питання: *чий? чия? чиє? чиї?*

boy – хлопчик, boy's – хлопчика

Особові займенники мають також два відмінки: називний і об'єктний. Особові займенники у називному відмінку завжди виступають у ролі підмета, а в об'єктному виконують роль прямого чи непрямого додатків:

Meet me. Зустріньте мене. (Прямий додаток)
Tell me. Розкажи мені. (Непрямий додаток)

§ 3. Множина іменників (вимова)

Здебільшого іменники мають однину і множину. Множина багатьох іменників утворюється додаванням до основи закінчення **-s**, яке вимовляється:

1. **[s]** – після глухих приголосних:
step – крок, steps – кроки [steps]
list – список, lists – списки [lists]
lip – губа, lips – губи [lips]
2. **[z]** – після голосної чи дзвінкої приголосної:
bed – ліжко, beds – ліжка [bedz]
pill – пілюля, pills – пілюлі [pilz]
dye – барвник, dyes – барвники [daiz]
3. Якщо іменник закінчується на *-s, -ss, -x, -sh, -ch*, додається закінчення **-es**, яке вимовляється **[iz]:**
dress – плаття, dresses – плаття [dresiz];
box – коробка, boxes – коробки [bɔksiz].
4. Якщо іменник закінчується на *-y* і перед ним іде голосна, **-s** додається до основи:
boy [boi] – хлопчик, boys [boiz] – хлопчики.
А якщо перед *-y* іде приголосна, тоді *-y* змінюється на *-i* і додається **-es**:
baby ['beibi] – немовля, babies ['beibiz] – немовлята.

§ 4. Артикль

В українській мові такої частини мови немає. Артикль відіграє роль означення іменників і стоїть перед ними, очолюючи решту означень. В англійській мові артиклів два: неозначений – **a (an)** та означений – **the.**

Неозначений артикль **a** утворився від слова **one** (один) і, в основному, зберіг його значення: a book – якась, будь-яка книга, про яку почули вперше. Цей артикль вживається лише з іменниками **в однині**:

a bag an egg
a name an apple

Отже, якщо іменник (прикметник) починається з приголосної – вживається **a**, а якщо з голосної – **an**.

Неозначений артикль означає:
- неозначений предмет (істоту);
- ставить в ряд йому подібних;
- який-небудь, будь-який, деякий;
- вперше згаданий;
- один із низки йому подібних.

Неозначений артикль слід вживати із злічуваними іменниками в однині і не можна вживати з іменниками маси або із абстрактними назвами:

a cat, a box; water, salt, sugar; life, courage
(кіт, коробка; вода, сіль, цукор; життя, відвага)

Означений артикль **the** утворився від слова **this** (цей) і зберіг його значення. Артикль **the** вживається з іменниками однини і множини. Якщо іменник (прикметник) починається з приголосної, то читається [ðə], а якщо з голосної – [ði]:

the book, the books; the eggs, the apples

Означений артикль означає:
- певний предмет;
- індивідуалізує;
- конкретний, відомий, саме цей;
- згаданий не вперше;
- свого роду єдиний.

В англійській мові з означеними артиклями завжди вживаються назви морів, океанів, рік, пустель, гір, сторін світу. Без артикля вживаються назви місяців, днів тижня, власні назви, назви континентів, штатів, округів, міст, вулиць, озер, країн. Але існує багато винятків з правил: коли вживати і який вживати артикль, і коли не вживати і т.д.

Запам'ятайте, якщо функцію означення виконують вказівні займенники this, that, присвійні займенники або числівники, артикль не вживається:

I see a dog.
I see the dog.
I see this dog.
I see his dog.
I see two dogs.

§ 5. Наказові речення (інтонація)

Вирази, що передають наказ, заборону, прохання, спонукання, пораду, запрошення, застереження, вимовляються низхідною інтонацією. Слово "please", що пом'якшує наказ, може стояти на початку речення чи в кінці:

ˊPlease, ˊtake this ↓map.

ˊTake this ↓map, please.

ˊGive ˊPete ˊfive ↓apples, please.

ˊSend them that ↓bag, please.

§ 6. Рід іменників

На відміну від української мови, більшість англійських іменників не мають граматичної категорії роду, тобто всі неживі предмети, абстрактні поняття та речовини замінюються займенником ***it***; людей чоловічої статі виражаємо займенником ***he***, а жіночої – ***she***.

This is a bed, it is big. He is a boy. She is glad.

Тварин також позначають займенником ***it***, незалежно від статі. Лише коли вони є персонажами казок, байок і легенд, тобто дійовими особами, їх замінюють займенниками ***she***, ***he***.

Замість слова ***baby*** (немовля) вживається ***it***.

На українську мову при перекладі речень вживається той займенник, якого роду іменник в українській мові:

Give me the apple. It is on the plate.	Дай мені яблуко. Воно на тарілці.
The baby is pale. It is sick.	Немовля бліде. Воно хворе.
This is a cat. It is black.	Це – кіт. Він чорний.

§ 7. Дієслова *to be, to have* у часах групи Indefinite

	Present	Past
to be	I **am** he, she, it **is** we you **are** they	I, he, she, it **was** we you **were** they
to have	I **have** he she **has** it we you **have** they	I he she it we **had** you they

Ці дієслова широко вживаються, як повнозначні і як допоміжні, для утворення різних часових форм інших дієслів та для побудови питальних і заперечних речень:

Я – лікар. I am a doctor. (у розмові: I'm a doctor)

Він – студент. He is a student. (He's a student)

§ 8. Множина іменників (способи утворення, правопис)

На письмі більшість іменників мають у множині закінчення **-s.** Закінчення **-es** додається в таких випадках:

а) якщо іменник в однині закінчується на **-s, -ss, -sh, -ch, -tch, -x:**

a bus (автобус) – buses
a class (клас) – classes
a bush (кущ) – bushes
a lunch (сніданок) – lunches
a watch (годинник) – watches
a box (ящик) – boxes

б) якщо іменник в однині закінчується на **-y** з попередньою приголосною; при цьому **y** змінюється на **i**:

a story (оповідання) – stories
a fly (муха) – flies

в) якщо іменник в однині закінчується на **-o** з попередньою приголосною, то в множині додається закінчення **-es:**

a hero (герой) – heroes
a tomato (помідор) – tomatoes
В и н я т к и:
a piano (рояль) – pianos
a photo (фото) – photos

У деяких іменниках, що в однині закінчуються на **-f** або **-fe**, у множині **f** змінюється на **v** і додається закінчення **-(e)s**; буквосполучення **-ves** вимовляється **[vz]:**

a wife (дружина) – wives
a shelf (полиця) – shelves
a wolf (вовк) – wolves
a half (половина) – halves
a leaf (лист) – leaves
a calf (теля) – calves
a knife (ніж) – knives
a life (життя) – lives

Ці форми множини слід запам'ятати, тому що у багатьох іменниках цього ж типу множина утворюється за загальним правилом – додаванням закінчення **-s** без зміни **f** на **v**, наприклад:

a roof (дах) – roofs
a chief (ватажок) – chiefs
a kerchief (хустка) – kerchiefs
a safe (сейф) – safes

Якщо іменник в однині закінчується на **-th** [θ] після довгого голосного або дифтонга, то у множині кінцевий звук [θ] змінюється на [ð], після якого закінчення множини **-s** вимовляється [z]:

a path [pɑ:θ] стежка – paths [pɑ:ðz]
a mouth [maʊθ] рот – mouths [maʊðz]

Але якщо перед кінцевим **-th** стоїть приголосний або короткий голосний, то множина утворюється за загальним правилом:

a month [mʌnθ] місяць – months [mʌnθs]
a smith [smiθ] коваль – smiths [smiθs]

У слові **house** (будинок) кінцевий звук [s] перед закінченням множини змінюється на [z]:

a house [haʊs] будинок – houses [ˈhaʊziz]

Множина деяких іменників утворюється не за правилами:

a man [mæn] чоловік – men [men]
a woman [ˈwumən] жінка – women [ˈwimin]
a foot [fut] нога – feet [fi:t]
a tooth [tu:θ] зуб – teeth [ti:θ]
a goose [gu:s] гуска – geese [gi:s]
a mouse [maʊs] миша – mice [mais]
a child [ʧaild] дитина – children [ˈʧildren]
ox [ɔks] віл – oxen [ˈɔksən]

§ 9. Вказівні займенники

this – цей, ця, це **these** – ці
that – той, та, те **those** – ті
such – такий
the same – той самий

This is a leg. (Це – нога.) These are legs. (Це – ноги.)
That is an arm. (То – рука.) Those are arms. (То – руки.)
It is the same boy. (Це той самий хлопець.)
I have never seen such a box. (Я ніколи не бачив такої коробки.)

§ 10. Загальне питання та його інтонація

Структура питального речення відрізняється від розповідного порядком слів. Питання, які потребують відповіді "так, ні", називаються загальними:

Дієслово-зв'язка	підмет	іменна частина присудка	другорядні члени речення
Is	the pen	black?	
Is	my name	Pete?	

Загальні питання вимовляються з висхідною інтонацією, а на дієслово, з якого починається питання, обов'язково падає наголос:

ˈIs ˈLviv a ↑big city?

Ствердувальна відповідь починається словом ***yes***, а потім ставиться підмет з відповідним дієсловом-зв'язкою:

ˈIs the ˈbag ↑black? – ↓Yes, it ↓is.

Заперечна відповідь складається зі слова ***no***, а далі йде підмет-займенник і дієслово-зв'язка з часткою ***not***:

ˈIs ˈmy ˈpen ↑bad? – ↓No, it isn't.

§ 11. Особливості однини та множини іменників

1. У § 8 розглянуті випадки утворення множини іменників. Серед винятків на "**o**" множину за допомогою "**s**" крім pianos, photos утворюють ще ряд іменників: videos, cuckoos, solos, zoos, radios, sopranos, studios, autos, kilos, memos, discos, tattoos.

2. Як і в українській мові, в англійській також є іменники, що вживаються лише в однині, і є іменники, що вживаються лише в множині:

Only in singular:	**Only in plural:**
furniture – меблі	belongings – власність
money – гроші	goods – речі
food – їжа	grapes – виноград
news – новини	trousers – штани
advice – порада	police – поліція
knowledge – знання	jeans – джинси
fruit – фрукти	scales – терези
information – інформація	tweezers – пінцет
chalk – крейда	mass media – засоби масової інформації
progress – прогрес, успіх	oats – овес
measles – кір	reins – віжки
politics –політика	scissors – ножиці
courage – відвага	wages – зарплата
cloth – тканина, полотно	tongs – щипці, плоскогубці
physics – фізика	people – люди
hair – волосся	tights – колготки
rice – рис	spectacles – бінокль
margin – край	outskirts – околиця міста
gymnastics –гімнастика	suburbs – околиця за містом
athletics – атлетика	glasses – окуляри
	manners – манери
	brains – мозок
	stairs – східці (в будинку)
	steps – драбина
	thanks – подяка
	peas – арахіс
	raisins – родзинки
	beans – боби
	apricots – абрикоси
	cherries – вишні

Однакову форму однини і множини мають такі іменники:

fish – риба	trout – форель
sheep – вівця	salmon – лосось
deer – олень	series – серія; низка
means – засіб	headquarters – штаб, штаб-квартира
species – вид	

§ 12. Множина іменників латинського і грецького походження

Деякі іменники латинського і грецького походження зберігають ті форми множини, які вони мали в рідній мові:

a phenomenon[fi'nɒminən] явище – phenomena [fi'nɒmine]

a crisis ['kraisis] криза – crises ['kraisi:z]

a radius [ˈreidjəs] радіус – radii [ˈrediai]
a nucleus [ˈnju:kliəs] ядро – nuclei [ˈnju:kliai]
a datum [ˈdeitəm] дана величина; факт – data [ˈdeitə]
a thesis [ˈθi:sis] теза – theses [ˈθesi:z]
a formula [ˈfɒmju:lə] формула – formulae [ˈfɔ:mjʊˌli:]
a bacterium [bækˈti(ə)riəm] бактерія – bacteria [bækˈti(ə)riə]

§ 13. Альтернативні питання та їх інтонація

Альтернативне питання – це питання вибору. Воно складається з двох частин, з'єднаних сполучником ***or (чи)***.

Порядок слів в альтернативному питанні такий самий, як і в загальному.

Is ˈBen a ↑doctor?

Is ˈBen a ↑doctor | or a ↓teacher?

При вимові перша частина – висхідний тон, потім іде пауза, а друга – низхідний:

Are you ↑students | or ↓pupils?

Якщо альтернативне питання ставиться до підмета, то речення будується інакше:

Is ↑Olga at school | or is ↓Nina? – ↓Olga is.

§ 14. Особові займенники

Однина	Множина
I (я)	we (ми)
you (ти)	you (ви)
he (він)	they (вони)
she (вона)	
it (воно)	

Наприклад:

I want to be a good student. (Я хочу бути хорошим студентом.) She is a nurse. (Вона медсестра.)

§ 15. Прийменники місця і напрямку

Прийменники місця		Прийменники напрямку	
on	на	down	вниз
on the top	зверху	up	вгору
over/above	над	into	в(середину)
in/inside	в/всередині	out of	з(середини)
outside	назовні	from	з
by/beside	біля	to	до
near	недалеко	across	через (дорогу)
behind	ззаду	towards	в напрямку до
under	під	away from	звідкись
below	внизу	along	вздовж
in front of	спереду	past	повз

in the center of	в центрі	around	навкруги
in the middle of	в середині	through	через (щось)
at the back	позаду		
at the front	попереду		
on the left	зліва		
on the right	справа		
opposite	напроти		
next to	поряд з		

§ 16. Спеціальні питання

Спеціальне питання – це питання до окремого члена речення. Воно завжди починається питальним словом.

What do you want to write him about? (Про що ти хочеш йому написати?)

Якщо питання ставиться до підмета, порядок слів у реченні не змінюється, лише замість підмета ставиться слово who (хто) або what (що). Наприклад:

What is this? (Що це?) – It's a pen. (Це ручка)

What is he? (Хто він за професією?) – He's a doctor. (Він лікар.)

§ 17. Питальні слова

Питальні слова допомагають побудувати всі можливі спеціальні питання.

who – хто?	Who speaks English?
what – що?	What is that? What is he?
what – який?	What pen is it?
what kind of – який (з)	What kind of book is it?
whose – чий	Whose book is it?
whom – кого, кому, ким	Whom do you see here?
	Whom are you speaking to?
when – коли	When is your sister at home?
where – де, куди	Where is your house?
	Where do you go?
why – чому	Why are you late?
how – як	How are you today?
how long – як довго	How long does it take you to get there?
how many – скільки	How many students are there in your group?
how much – скільки	

§ 18. Присвійні займенники

Присвійні займенники відповідають на питання *чий?* Вони мають залежну (роль означення) і незалежну форми.

Особові займенники	Присвійні займенники		Переклад
	Залежна форма	Незалежна форма	
I	my	mine	мій
you	your	yours	твій
he	his	his	його
she	her	hers	її
it	its	–	його

Особові займенники	Присвійні займенники		Переклад
	Залежна форма	Незалежна форма	
we	our	ours	наш
you	your	yours	ваш
they	their	theirs	їхній

Залежна форма: his name (його ім'я), our school (наша школа).
Незалежна форма: займенник вживається без іменника, але із прийменником ***of***:
It's no business of mine. (Це не моє діло.)

§ 19. Прийменниковий додаток
Додаток із прийменником називається *прийменниковим*:
This is a blackboard. Look at it.
Please, look at the cat.
Please, don't look at him.

§ 20. Родовий відмінок іменника
Іменник в англійській мові має два відмінки: *називний і присвійний:*
The doctor is in the ward.
The doctor's prescription is on the table.
Щоб виразити належність до родового відмінка, слід звернутись до прийменника ***of***, який і допоможе це зробити:
The prescription of the doctor is on the table. (Рецепт лікаря – на столі).

ЧАСТИНА II

§ 21. Слова, що замінюють артиклі
Артиклі не вживаються, якщо перед іменником стоять займенники (присвійні, вказівні, неозначені) і числівники:
He put my book on his table. (Він поклав мою книжку на свій стіл.)
These students are at home. (Ці студенти вдома.)
Some pens are on the floor. (Кілька ручок – на підлозі.)
Five doctors are in the ward. (П'ять лікарів у палаті.)

§ 22. Дієслово у Present Simple (Теперішній неозначений час)
Теперішній неозначений час означає дію або стан, які притаманні підмету завжди, взагалі чи звичайно.
Характерними прислівниками для цього часу є:

always – завжди usually – звичайно daily – щоденно seldom, rarely > рідко sometimes – іноді	often – часто occasionally – іноді never – ніколи every day (morning, evening, week, year, etc.) – кожен день (ранок, вечір, тиждень, рік тощо)

I go to school in the morning. (Я ходжу до школи вранці.)

Питальна та заперечна форми утворюються за допомогою дієслова ***do*** (допоміжного):

Do you speak English? (Ти розмовляєш англійською?)

You don't sit at the desk. (Ти не сидиш за партою.)

Крім допоміжного, дієслово ***to do*** може бути основним дієсловом у значенні ***робити***:

They do the work well. (Вони роблять роботу добре.)

Дієслово ***do*** може замінити основне дієслово речення:

We read English well. You do it badly. (Ми читаємо англійською добре. Ви робите це погано.)

Дієслово ***do*** підсилює значення, коли вживається перед основним дієсловом:

These drugs do stimulate the reaction. (Ці ліки дійсно стимулюють реакцію.)

§ 23. Порядок слів у стверджувальному розповідному реченні

Англійська мова належить до групи аналітичних мов, тобто всі граматичні зв'язки відбуваються не за допомогою відмінків, часів, способів, станів, а за допомогою службових слів. Кожне слово в реченні несе граматичне чи лексичне навантаження, тому зайвих слів у реченні не буває! Основна структура будь-якого речення – підмет і присудок; іноді підмет мається на увазі (у наказовому реченні), а от присудок завжди є в реченні. Зліва від нього завжди знаходиться підмет. Поширюють речення додатки, означення, обставини. Означення може бути будь-де.

Схема слів у поширеному розповідному реченні:



Наприклад:

Every day we get up at seven, де члени речення такі:

every – означення;

IV – day – обставина;

I – we – підмет;

II – get up – присудок;

IV – at seven – обставина.

§ 24. Слова-замінники іменника:

one, that, it, the former, the latter.

One може замінити іменник, про який говорилось раніше:

One must do it. (Потрібно це зробити.)

One can say it. (Можна це сказати.)

One reads the book with interest. (Читаєш книгу з інтересом.)

That замінює раніше вжитий іменник, ціле речення, а то й абзац:

My father carried the gift. (Батько приніс подарунок.) That was for my mother. (То було для моєї мами.)

It замінює іменник, перекладається раніше згаданим іменником чи займенником:

Take the dictionary. (Візьми словник.) It is on the shelf. (Він на полиці.)

The former (перший), ***the latter*** (останній) замінюють іменники в тих випадках, коли слід замінити один з двох чи обидва раніше згаданих іменники.

These two methods give good results. (Ці два методи дають хороші результати.) The former is used more often, the latter not so often. (Перший застосовують частіше, другий – не так часто.)

§ 25. Третя особа однини дієслова у Present Indefinite

Ця форма утворюється за допомогою закінчення ***-s***, яке читається [s, z, iz]:

works [s], sits [s]

lives [z], plays [z]

closes [iz], teaches [iz]

Порівняйте:

Positive	
I	work
We	play
You	do
They	like
He	works
She	plays
It	does
	likes

Question		
	I	
Do	we	
	you	work?
	they	play?
Does	he	do?
	she	like?
	it	

§ 26. Прислівники неозначеного часу

Usually *(звичайно)*; ***sometimes*** *(іноді)*; ***often*** *(часто)*; ***seldom*** *(рідко)*; ***always*** *(завжди)*.

У реченнях вони звичайно стоять перед дієсловом-присудком:

She often makes injections. (Вона часто робить ін'єкції.)

My friends always go home on weekends. (Мої друзі завжди їдуть додому на вихідні.)

Прислівник ***sometimes*** може вживатись і на початку речення:

Sometimes we do exercises. (Іноді ми робимо вправи.)

§ 27. Спеціальні питання до підмета та його означення

Порядок слів у таких питаннях залишається той самий, оскільки слова ***who, what, which, whose,*** які замінюють іменник, відіграють роль підмета. Звичайно після слів who, what, which йде дієслово у 3-й особі однини:

Who knows this doctor? (Хто знає цього лікаря?)

What usually stands here? (Що тут звичайно стоїть?)

Which letter comes after "B"? (Яка літера йде після "B"?)

Whose books are on the table? (Чиї книги на столі?)

Which вживається тоді, коли мова йде про вибір із обмеженої кількості осіб чи предметів. Часто після нього вживається прийменник ***of***:

Which of your brothers studies at the institute? (Котрий із твоїх братів навчається в інституті?)

На спеціальні питання до підмета чи його означення даються короткі відповіді, які складаються з підмета та відповідного допоміжного дієслова:

Who works at the hospital? (Хто працює в лікарні?) – My sister does. (Моя сестра.)

Whose name is on the list? (Чиє ім'я у списку?) – My name is. (Моє.)

§ 28. Ланцюг іменників (правило ряду)

Якщо після артикля чи слова, яке його замінює, стоїть іменник без прикметників чи з прикметниками, то лише останнє слово завжди є означуваним, тобто головним, а решта всі – означувальні. Переклад слід починати з останнього:

a water cooled system – система, що охолоджується водою

internal disease treatment – лікування внутрішніх хвороб

§ 29. Звороти *there is/are*

1) Якщо є предмет (особа) та місце його знаходження, вживається зворот there is (для однини), there are (для множини):

There is a table in the center of the room.

There are many books in my library.

Отже, речення завжди будується за схемою:



There is a book on the table. (На столі – книга.)

There are apples in the bag. (У сумці – яблука.)

2) Якщо в реченні кілька підметів і вони вживаються для вираження однини і множини, дієслово ***to be*** узгоджується з підметом, який іде безпосередньо за ним:

There is a table and five chairs in the room. (В кімнаті є стіл і п'ять стільців.)

There are two lungs, a gullet and a heart in the chest. (У грудній клітці є дві легені, стравохід і серце.)

3) У звороті ***there is/are*** слово ***there*** не має ніякого значення; якщо потрібно вказати місцезнаходження прислівником ***там***, слід в кінці речення знову вжити слово ***there***:

There are many students there. (Там є багато студентів.)

4) У питальних реченнях із зворотом ***there is/are*** дієслово ***to be*** ставиться спочатку:

Is there a book on the shelf? (На полиці є книга?)

Are there two kidneys in the body? (В організмі є дві нирки?)

5) У заперечних реченнях заперечна частка ***not*** ставиться після дієслова ***to be***:

There is not a book here. (Тут немає книги.)

There are not many people at the meeting. (На зборах небагато людей.)

6) У минулому часі: для однини – ***there was***
для множини – ***there were***:

There was a pencil there. (Там був олівець.)

There were five boys at work. (На роботі було п'ять хлопців.)

§ 30. Місце прислівників способу дії і ступеня в реченні

Прислівники способу дії ставляться після дієслова, яке вони означають, а якщо в реченні є прямий додаток, то після нього:

My son speaks well. (Мій син добре говорить.)

My son speaks English well. (Мій син добре розмовляє англійською.)

Прислівники ступеня ставляться звичайно перед тим прикметником чи прислівником, який вони означають:

She speaks French very well. (Вона говорить французькою дуже добре.)

He is a very good student. (Він дуже хороший студент.)

§ 31. Парні сполучники

Єднальні сполучники:

both ... and *– як ... так і*

not only ... but also *– не тільки ... а й*

neither ... nor *– ні ... ні*

Розділові сполучники:

either ... or *– чи ... чи*

Вони з'єднують однорідні члени речення або окремі речення:

The trunk includes both the chest and the abdomen. (Тулуб включає як грудну клітку, так і черевну порожнину.)

Neither kidneys nor the heart takes part in blood formation. (Ні нирки, ні серце не беруть участі у кровотворенні.)

§ 32. Об'єктний відмінок особових займенників

Як вже зазначалось, особові займенники мають два відмінки – називний і об'єктний:

The Nominative Case	The Objective Case
I – я	me – мене, мені
you – ти	you – тебе, тобі
he – він	him – його, йому
she – вона	her – її, їй
it – воно	it – його, йому, її, їй
we – ми	us – нас, нам
you – ви	you – вас, вам
they – вони	them – їх, їм

The hospital is large. It is new. (Лікарня велика. Вона нова.)

This is the heart. It works all your life. (Це серце. Воно працює все ваше життя.)

You can buy this car. It is comfortable. (Ти можеш купити цю машину. Вона зручна.)

§ 33. Основні форми дієслова

Дієслова в англійській мові мають чотири основні форми:

I – інфінітив (the Infinitive);

II – минулий неозначений час (Past Simple);

III – дієприкметник минулого часу (Past Participle);

IV – дієприкметник теперішнього часу (Present Participle).

За способом творення форми дієслів *Past Simple* і *Past Participle* поділяються на правильні і неправильні. Правильні дієслова утворюють форму минулого неозначеного часу (*Past Simple*) і форму дієприкметника минулого часу (*Past Participle*) додаванням у всіх особах закінчення ***-ed*** до інфінітива (§ 43); *Present Participle* утворюється за допомогою закінчення ***-ing*** для всіх дієслів:

I	II	III	IV
to work	worked	worked	working
to stay	stayed	stayed	staying
to dry	dried	dried	drying

Неправильні дієслова утворюють другу і третю форми особливими способами, і їх необхідно запам'ятати (§ 43, Додаток 1):

to begin	began	begun
to go	went	gone

§ 34. Вживання займенника *it*

Займенник ***it*** не завжди замінює іменник. Він вживається також:

a) як підмет у безособових реченнях:

It is snowing. (Йде сніг.)

b) у значенні вказівного займенника:

It must be a nurse. (Це, напевно, медсестра.)

c) як слово, що вводить речення, якщо підмет виражений підрядним реченням:

It is very nice that you have come. (Дуже приємно, що ви прийшли.)

§ 35. Вживання слів *much – many, little – few*

Кількісні займенники – це *many, much* (багато); *few, little* (мало); *a few, a little* (кілька, трохи).

a) Всі вони мають ступені порівняння:

many – more – the most
much – more – the most
few – fewer – the fewest
little – less – the least

b) ***Many*** і ***few*** вживаються перед злічуваними іменниками в множині і можуть замінювати їх. В ролі іменника ***many*** означає *багато хто*, ***few*** – *мало хто*:

There were many students in the hospital. Many stay there. (У лікарні було багато студентів. Багато хто залишається там.)

c) ***Much*** і ***little*** вживаються перед незлічуваними іменниками. А ще ***much*** і ***little*** вживаються після дієслів як прислівники:

I have very little time. (У мене мало часу.)

She reads little. (Вона мало читає.)

d) ***A few, a little*** вказує на певну кількість:

We have little sugar. (У нас мало цукру.)

We have a little sugar. (В нас є ще трохи цукру.)

They have few patients. (У них мало пацієнтів.)

They have a few patients. (У них є кілька пацієнтів.)

§ 36. Питальна і заперечна форма дієслова у Present Simple

Do you go home? (Ти йдеш додому?)
Does she speak English? (Вона говорить англійською?)
We don't go to school. (Ми не йдемо до школи.)
He doesn't work at home. (Він не працює вдома.)
Отже,

Do Does	(not)	підмет	інфінітив	?

§ 37. Схеми загального і спеціального питань

Загальне питання:

Do Does	підмет	основне дієслово	додаток	обставина	?

Do	you	study	medicine	here ?
Does	she	go	there	by bus ?

Спеціальне питання:

Питальне слово	do does am are is	підмет	основне дієслово	другорядні члени	?

Why	do	we	study	anatomy?
Where	does	she	go	every day?
What	are	you	doing	at English?
Whom	do	they	meet	today?
When	is	he	working	in the office?

§ 38. Присвійний відмінок іменників

В англійській мові іменник має лише два відмінки: загальний і присвійний. Загальний називає іменник і відповідає на питання: хто? що? кому? ким? про кого? і т.д., а присвійний відповідає на питання: ***whose?*** (чий? чия? чиє? чиї?).

Цей відмінок утворюється за допомогою ***'s***:

Однина – mother's name (мамине ім'я)
Peter's friends (друзі Петра)
Множина – boys' meeting (зустріч хлопчиків)
dogs' food (їжа собак)
students' hostel (гуртожиток студентів)

Якщо іменник у множині не закінчується на ***s***, то присвійний відмінок утворюється, як в однині:

child's toy – children's toys

man's friend – men's friends

У присвійному відмінку вживаються в основному іменники, що означають назви істот:

my friend's mother – мати мого друга

the bird's nest – гніздо пташки

Крім назв істот у присвійному відмінку вживаються:

1) іменники часу і відстані:

next week's event – подія наступного тижня

a mile's distance – одномильна відстань

2) назви країн, міст і слова *country, town, city, world, ocean, river*:

city's main street – головна вулиця міста

river's banks – береги річки

3) назви планет та їх супутників:

sun's rays – промені сонця

moon's light – сяйво місяця

4) збірні іменники типу: *government, party, army, crew (екіпаж), family, society*:

my family's house – будинок моєї сім'ї

government's proposals – пропозиції уряду

5) у стійких словосполученнях:

a stone's throw – незначна відстань

to one's heart's content – досхочу

§ 39. Числівники

I. Кількісні числівники:

<table>
<tr><td>1 one</td><td>11 eleven</td><td>21 twenty-one</td></tr>
<tr><td>2 two</td><td>12 twelve</td><td>22 twenty-two</td></tr>
<tr><td>3 three</td><td>13 thirteen</td><td>30 thirty</td></tr>
<tr><td>4 four</td><td>14 fourteen</td><td>40 forty</td></tr>
<tr><td>5 five</td><td>15 fifteen</td><td>50 fifty</td></tr>
<tr><td>6 six</td><td rowspan="3">+ teen</td><td rowspan="2">+ ty</td></tr>
<tr><td>7 seven</td></tr>
<tr><td>8 eight</td><td rowspan="2">100 hundred</td></tr>
<tr><td>9 nine</td></tr>
<tr><td>10 ten</td><td>20 twenty</td><td>1000 thousand</td></tr>
</table>

Наприклад: 178 – one hundred and seventy-eight

1326 – thirteen hundred and twenty-six

1740 – one thousand seven hundred and forty.

Роки читаються по дві цифри: 1986 – nineteen eighty-six, 2007 – two thousand and seven.

Числівники ***hundred, thousand, million*** не мають множини, якщо далі йде числівник: six thousand, five million. Але якщо вони вживаються з прийменником ***of***, вони набирають форму множини: hundreds of people, thousands of workers, millions of birds.

§ 49. Неозначені займенники *some, any*

2. *Порядкові числівники.*

Вони завжди вживаються з означеним артиклем ***the***, утворюються від кількісних числівників додаванням суфікса ***-th***, крім:

the first – перший
the second – другий
the third – третій
the fifth – п'ятий
the eighth – восьмий
the ninth – дев'ятий
the twelfth – дванадцятий

від 20 до 90:
ty → tieth
twenty – twentieth
(20 – 20й)

Багатозначні числівники змінюють останню цифру на порядковий номер: 1.038.685-ий – one million thirty-eight thousand six hundred and eighty-fifth.

3. Дроби.

У *простих* дробах чисельник – це кількісний числівник, а знаменник – порядковий:

1/7 – one seventh, 3/4 – three fourths

1/2 – a half (половина), 1/4 – a quarter (чверть)

У *десяткових* дробах ціле число відділяється від дробового не комою, а крапкою – point [point]. Кожна цифра читається окремо! Нуль читається ***naught*** [ˊnɔ:t] або ***o*** [ˊəʊ], в Америці ***zero*** [ˊzirəʊ]:

24.306 – two four point three o six

Число в ступені: 10^2 – ten to the second power (ten squared); 30^3 – thirty to the third power (thirty cubed).

§ 40. Конверсія

Це одна з особливостей лексики в англійській мові, коли слово переходить з однієї частини мови в іншу, не змінюючи форми (іноді наголос змінюється та чергування **s, z** може відбутись):

to imˊport (увозити) – ˊimport (ввезення)

to preˊsent (дарувати) – ˊpresent (подарунок).

§ 41. Місце прямого і непрямого додатків у реченні

Більшість перехідних дієслів мають крім прямого додатка ще й непрямий додаток без прийменника, що відповідає на питання ***whom?*** (*кому?)* і означає особу, до якої відноситься дія. Цей непрямий додаток відповідає українському давальному відмінкові без прийменника:

I often send them letters. (Я часто шлю їм листи.)

Прийменник ***to*** вживається, якщо особа, на яку направлена дія, стоїть після прямого додатка:

I always give books to her. (Я завжди даю їй книги.)

I am reading it to you now. (Я його зараз читаю тобі.)

§ 42. Дієслово у Past Indefinite (Минулий неозначений час)

Past Indefinite правильних дієслів утворюється додаванням до інфінітива (без частки to) закінчення ***-ed***, яке вимовляється:

[t] – після глухих приголосних (крім ***t***):
to ask – asked [ɑ:skt]; to like – liked [laikt]
[d] – після дзвінких приголосних (крім ***d***) та після голосних:
to play – played [pleid]
to clean – cleaned [kli:nd]
to live – lived [livd]
[id] – після ***t, d, te, de***:
to want – wanted [ˊwɒntid]
to decide – decided [diˊsaidid]

Правила правопису

1. Якщо інфінітив правильного дієслова закінчується на ***-e***, то в Past Simple перед ***-ed*** вона не пишеться:
to love – loved
2. Якщо інфінітив закінчується на ***-y***, перед якою стоїть голосна, до неї додаємо ***-ed***:
to play – played
а якщо приголосна, то перед ***-ed*** букву ***y*** міняємо на ***i***:
to study – studied
to cry – cried
3. Якщо інфінітив закінчується на одну приголосну, а перед нею стоїть короткий наголошений голосний, то кінцева приголосна подвоюється:
to stop – stopped
to permit – permitted
4. Кінцева ***r*** подвоюється, якщо останній склад наголошений і не має дифтонга:
to occur – occurred
to prefer – preferred
5. Кінцева ***l*** подвоюється, якщо перед нею є короткий голосний звук (наголошений і ненаголошений):
to travel – travelled
to fulfil – fulfilled

Past Simple вживається для вираження дії, що відбувалася в минулому; часто цей час позначається словами ***in the past, ago, last year, yesterday, the day before yesterday*** тощо:
I went home yesterday. (Я їздила додому вчора.)
Питальна форма:
Did you go home on Sundays?
Заперечна форма:
He ***didn't*** come home last Saturday.
Питально–заперечна форма:
Didn't she know English? (Невже вона не знала англійської?)

§ 43. Неправильні (нестандартні) дієслова (Irregular Verbs)

Такі дієслова утворюють другу і третю форми особливими способами, їх необхідно запам'ятати. У кожному підручнику, посібнику і словнику дається таблиця нестандартних дієслів. У цьому підручнику таблиця "Irregular Verbs" подана у Додатку 1.

§ 44. Дієслово *to be* у Past Indefinite

Теперішній час		*Минулий*		
am	–	was	–	однина
are	–	were	–	множина
is	–	was	–	однина
I am a student.		I was a student.		
You are boys.		They were good friends.		

§ 45. Дати, місяці, дні тижня

1. На відміну від української, в англійській мові дати (рік) виражаються не порядковими, а кількісними числівниками; спочатку називаються сотні, а потім десятки й одиниці, слово ***year*** (*рік*) не вживається після дати:

1900 nineteen o'o'
1905 nineteen o'five
1918 nineteen eighteen
2001 two thousand one

2. Пори року і місяці вживаються з прийменником ***in***:

in summer – влітку
in winter – взимку
in May – у травні

3. Дні тижня вживаються з прийменником ***on***:

on Sunday – у неділю
on Saturday – у суботу

4. У часових зворотах вживаються прийменники:

at 3 o'clock – о третій
by 6 o'clock – до шостої
since 7 o'clock – з сьомої
from 4 till 8 – з четвертої до восьмої
till 11 o'clock – до одинадцятої
for 2 hours – за 2 години

5. Дату називають так:

It was on the ninth of January 1905, on Sunday. (Це було 9го січня 1905 року у неділю.)

He was born on the fifteenth of May, 1980. (Він народився 15-го травня 1980 року.)

That war began on the twenty second of June, 1941. (Та війна почалася 22го червня 1941 року.)

§ 46. Participle II (Past Participle) (Дієприкметник минулого часу)

Past Participle має лише одну форму і є пасивним дієприкметником. Він утворюється за допомогою закінчення ***-ed*** від правильних дієслів (неправильні дієслова див. Додаток 1). ***Past Participle*** вживається тоді, коли іменник чи займенник, до якого він відноситься, позначає об'єкт вираженої ним дії:

We looked at the destroyed bridge. (Ми дивилися на зруйнований міст.)

He is a doctor loved and respected by everybody. (Він – лікар, якого всі люблять і поважають.)

У реченні ***Participle II*** виконує роль означення чи обставини (часу, причини, мети, способу дії і порівняння):

He is a well-known writer. (Він відомий письменник.)

When praised, he was ill at ease. (Коли його хвалили, він ніяковів.)

§ 47. Дієслово *to have* і зворот *to have got*

1. Дієслово ***to have*** означає *мати, володіти*:

The nurse has always work to do. (У медсестри завжди є робота.)

Якщо мова йде про постійну наявність предмета, явища чи стану, питальна та заперечна форми утворюються за допомогою ***do***; проте, якщо мова йде про поодинокий випадок, дієслово ***have*** будує як заперечне, так і питальне речення; порівняйте:

Do you often have colds? (Ви часто застуджуєтесь?)

Have you got a cold? (У вас застуда?)

2. Слід зазначити, що в розмовній мові для вираження значення *володіти, мати в наявності* у теперішньому часі вживається вираз ***have/has got***:

She has got new textbooks. (У неї нові підручники.)

Have you got a large family? (У тебе велика сім'я?)

I haven't got either a dog or a cat. (У мене немає ні собаки, ні кішки.)

3. У словосполученнях з деякими іменниками дієслово ***have*** втрачає своє значення і набуває іншого:

to have dinner (*обідати*) ***to have supper*** (*вечеряти*)

to have lessons (*займатися*) ***to have coffee*** (*пити каву*)

Do you have coffee every morning? (Ти п'єш каву щоранку?)

§ 48. Вираження відмінків у реченні

Відмінок – це форма іменника, що виражає зв'язок цього іменника з іншими членами речення. Як уже зазначалося, іменник в англійській мові має лише два відмінки: загальний (Common Case) і присвійний (Possessive Case), який означає належність. Загальний відмінок спеціальних закінчень не має. Зв'язок іменника у загальному відмінку з іншими словами у реченні виражається *прийменниками*:

родовий відмінок в основному виражається прийменником ***of***:

the order of the doctor (вказівка лікаря);

the list of injections (список ін'єкцій);

давальний відмінок може відповідати іменнику з прийменниками ***for/to***:

I made injection to the patient. (Я зробила ін'єкцію пацієнту.)

I prepared everything for the operation. (Я все приготувала до операції.)

знахідний відмінок іменника залежить від його положення в реченні (після присудка):

I see the patient in the ward. (Я бачу пацієнта у палаті.)

орудний відмінок передається іменником з прийменниками ***with/by***:

The surgeon makes operations with assistants. (Хірург проводить операції з асистентами.)

The poem was written by Byron. (Вірш написаний Байроном.)

§ 49. Неозначені займенники *some, any*

До неозначених займенників належать *some, any, one*, а також складені займенники *somebody, anybody, someone, anyone, something, anything.*

1. Займенники ***some, any*** вживаються як займенники-іменники у функції підмета і додатка:

Some wore white shirts. (Деякі носили білі сорочки.)

– Have you any swabs? – Yes, I have some. (У тебе є тампони? – Так, є кілька.)

2. Займенники ***some, any*** вживаються як займенники-прикметники у функції означення:

I have got some syringes. (У мене є кілька шприців.)

3. Займенник ***some***, що вжитий перед злічуваними іменниками чи замість них, має значення *кілька, деякі, дехто*:

Some looked very tired. (Дехто виглядав дуже втомленим.)

4. Із незлічуваними іменниками ***some*** означає *деяка кількість* (на українську мову звичайно не перекладається):

Won't you buy some sugar? (Ти не купиш цукру?)

§ 50. Зворотні займенники

Зворотні займенники утворюються за допомогою закінчення ***-self*** в однині та ***-selves*** у множині, що додають в основному до присвійних займенників:

myself	ourselves
yourself	yourselves
himself, herself, itself	themselves

Зворотні займенники виконують дві функції:

1) підсилюють іменник;

2) роблять дієслово зворотним.

На українську мову перекладаються словами сам, сама, самі та дієсловами з часткою -ся (-сь):

I translated the paper myself. (Я сам переклав статтю.) She dressed herself. (Вона одягалася.)

Зворотний займенник ***oneself*** вживається з інфінітивом дієслів, а також тоді, коли підмет виражено неозначеним займенником ***one***:

One should take care of oneself. (Треба самому турбуватися про себе.)

§ 51. Модальне дієслово *can* і вирази, що його замінюють

В англійській мові є дієслова, що не позначають дію, а виражають відношення до неї, тобто можливість, вірогідність, необхідність здійснення дії. Це модальні дієслова. Сама дія виражена інфінітивом дієслова, який іде за модальним дієсловом і вживається без частки ***to***. Модальні дієслова не мають форм інфінітива і дієприкметника, не змінюються за особами, не вживаються для утворення наказу. Найбільш уживаються модальні дієслова ***can*** – *могти*, ***may*** – *могти*, ***must*** – *мусити*. (У Додатку 2 ви можете знайти різні модальні дієслова та дієслова, що їх замінюють.)

Дієслово ***can*** означає:

1) можливість, вміння і здібності:

He can do this injection. (Він може зробити цю ін'єкцію.)

2) дозвіл:

You can go to the doctor. (Ви можете піти до лікаря. Вам дозволяють.)

3) часто вживається в питаннях до підмета:

Who can do it? (Хто може це зробити?)

Форма минулого часу – ***could***:

I couldn't write it last week. I had no time. (Я не міг написати це минулого тижня. В мене не було часу.)

Заперечні форми – ***cannot (can't)*** і ***could not (couldn't)***:

You can't take this book from the library. (Вам не можна брати цю книгу з бібліотеки.)

Щоб ввічливіше виразити прохання, замість ***can*** вживається ***could***:

Could you tell me the way to the hospital, please? (Скажіть, будь ласка, як пройти до лікарні?)

§ 52. Способи перекладу слова *as*

Це слово має багато значень:

– як (прислівник);
– у якості;
– коли;
– у той час як (сполучник часу);
– в міру того як;
– оскільки (сполучник причини).

У виразах:

as follows – *таким чином*;
as for – *що стосується, стосовно*;
as if – *нібито*;
as well as – *як і, крім того*;
as well – *а також* (зазвичай ставиться в кінець речення, при перекладі ставиться на початок речення).

Наприклад:

He works here as a surgeon. (Він працює тут хірургом.)

As the doctor says in his report, the method is useful. (Як лікар зазначає у звіті, цей метод – доцільний.)

§ 53. Пасивний стан дієслова

Пасивний стан дієслова означає дію, яка направлена на особу чи предмет.

He is spoken much about. (Про нього багато говорять.)

This school was built two years ago. (Цю школу побудували два роки тому.)

Пасивний стан утворюється з допоміжного дієслова ***to be*** й третьої форми відмінюваного дієслова – ***Past Participle.***

Часові форми пасивного стану вживаються за тими самими правилами, що й відповідні їм форми активного стану.

Наприклад:

Present Simple Passive

I am always invited to meetings of the English Club. (Мене завжди запрошують на засідання англійського клубу.)

This paper is used for writing letters. (Цей папір використовують для написання листів.)

The children are taught English, French and German at our schools. (Дітей навчають англійської, французької та німецької мов у наших школах.)

Past Simple Passive

The exhibition was opened before the Victory Day.

We were given a new timetable.

У питальній формі пасивного стану допоміжне дієслово ставиться перед підметом.

When was this monument built?

У запитаннях до підмета порядок слів не змінюється.

What was brought to you?

У заперечній формі частка ***not*** ставиться після допоміжного дієслова.

We were not told that he was ill.

Дієслова в пасивному стані можуть вживатися з модальними дієсловами *can, may, must.*

This book can be bought at any book shop. This work must be done as soon as possible.

Таблиця часових форм дієслова у пасивному стані

	Simple	**Continuous**	**Perfect**
Present	I am invited.	I am being invited.	I have been invited.
Past	I was invited.	I was being invited.	I had been invited.
Future	I shall be invited.	–	I shall have been invited.
Future-in-the-Past	I should be invited.	–	I should have been invited.

§ 54. The Present Simple and Present Continuous Tenses
(Теперішній неозначений та теперішній тривалий часи)

1) Як уже зазначалось у § 22, ***Present Simple*** означає теперішню повторювану чи звичну дію, факт чи стан, вживається зі словами: *every day, every year, always, usually, often.*

Every year we go to his aunt.

2) Також вживається для вираження дії, що відбувається в момент мовлення з дієсловами, які не вживаються в часах групи Continuous *(to see, to know, to hear, to feel, to like, to hate, to love, to understand).*

I don't see anything.

3) У 3-й особі однини всі дієслова мають закінчення ***-s***.

He dances well.

4) Питальні та заперечні речення будує допоміжне дієслово ***do/does.***

Don't you like this film?

She doesn't speak French.

5) ***Present Continuous*** означає теперішню тривалу дію, що відбувається в момент мовлення; вживається зі словами: *now, at this moment, at present.*

I am standing and speaking now.

6) Утворюється за допомогою дієслова ***to be (am, is, are)*** та основного дієслова із закінченням ***-ing***.

7) Питальні та заперечні речення будує допоміжне дієслово ***to be.***

Who is sitting with you? You are not reading now.

§ 55. Способи перекладу слова *one*

Слово ***one*** зустрічається в різних частинах мови, наприклад:

– *числівник* – "один":

There is only ***one*** book on the shelf.

– *замінник іменника* в однині і множині, перекладається раніше вжитим іменником або взагалі не перекладається:

This is a difficult problem but a useful ***one***.

– *неозначено-особовий займеник* (виконує роль підмета, але не перекладається):

One may say that's all right. (Можна сказати, що все в порядку).

– *з модальними дієсловами*:

one must, one should (потрібно, необхідно)

one can, one may (можна)

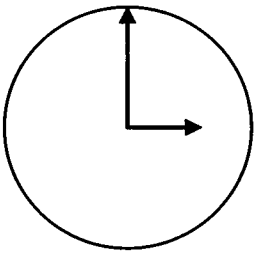
one needn't – немає потреби, не обов'язково

You needn't go there by bus. (Вам не обов'язково їхати туди автобусом.)

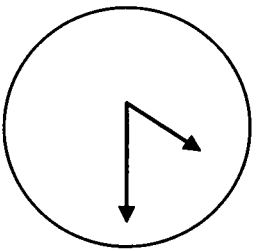
§ 56. Години, годинник

Англійці користуються дванадцятигодинною шкалою часу: час з 00^{00} до 12^{00} позначається літерами a.m. (ante meridium), а з 12^{00} до 24^{00} – p.m. (post meridium): it's 5 p.m. (17^{00}), it's 6 a.m. (шоста ранку). Щоб вірно повідомити точний час, використовується така лексика: *What time is it now?* (Котра година?), *o'clock* (годин: цілі числа), *half* (половина, півгодини), *minute* (хвилина), *quarter* (чверть), *past* (по, після), *to* (до).

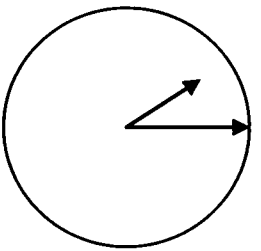
Час позначають:



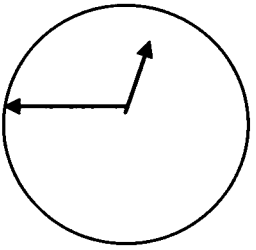
It's 3 o'clock.



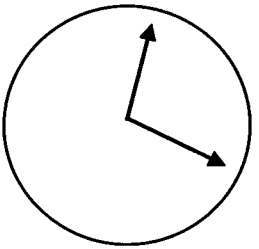
It's half past 4.



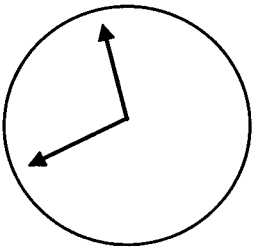
It's a quarter past 2.



It's a quarter to 1.



It's twenty minutes past 12.



It's twenty minutes to 12.

Отже, хвилини від 1 до 29 вживаються зі словом ***past***:

It's 14 minutes past 5 (5.14),

а хвилини від 31 до 60 позначають також цифрами від 1 до 29, але зі словом ***to***:

It's 12 minutes to 9 (8.48).

§ 57. Дієслово у Past Simple, Past Continuous (Минулий неозначений та тривалий часи)

1. ***Past Simple*** означає дію, що відбувалася в минулому. Вживається зі словами: *yesterday, the day before yesterday, last week (month, year), in 1997, etc.*

2. Утворюється (§§ 33, 42) :

а) правильні дієслова – за допомогою ***-ed***. Це закінчення вимовляється:

[d] – після голосних, дзвінких приголосних – opened, played;

[t] – після глухих приголосних – booked;

[id] – після d, t, de, te – decided.

б) неправильні – у другій колонці таблиці нестандартних дієслів (Додаток 1):

go – went; come – came:

I came home at 6 o'clock yesterday.

I closed the door and went to the street.

3. Питання та заперечення допомагає будувати дієслово ***do***, в минулому часі – ***did***:

When did you come home yesterday?

Did you close the door?

You didn't speak English last year.

4. ***Past Continuous*** вживається для вираження дії, що відбувалась, тривала в певний момент чи період часу в минулому. Вживається зі словами: *at 2 o'clock, at that moment, at midnight (опівночі), etc.*

5. Утворюється від дієслова ***to be*** у минулому часі – ***was/were*** + основне дієслово із закінченням ***-ing***.

I was going home at that moment.

We were speaking English from 3 to 4.

6. Питання та заперечення будують за допомогою ***was/were***:

I wasn't going to school at that moment.

We weren't speaking English from 3 to 4.

What were you doing at 6 o'clock?

§ 58. Infinitive (Інфінітив)

Інфінітив – це неособова форма дієслова, що називає дію і відповідає на питання *що робити? що зробити?* Ознакою інфінітива є частка ***to***, яка в багатьох випадках не вживається, зокрема після модальних дієслів. Частка ***not*** перед інфінітивом вказує на заперечну форму:

I am sorry to hear it. (Мені прикро це чути.)

He can do it in time. (Він може зробити це вчасно.)

She hoped not to see him with her sister. (Вона сподівалась не зустріти його зі своєю сестрою.)

§ 59. Прийменники і сполучники часу

В англійській мові є граматичні омоніми. Серед них ряд прийменників і сполучників, що співпадають за звучанням, наприклад:

He will come *after* me. Він прийде *після* мене. (прийменник) Many people began to fight for peace *after* these events took place. Багато людей почали боротьбу за мир *після того, як* ці події мали місце. (сполучник) He hasn't seen her *since* May. Він не бачив її *з* травня. (прийменник)

Слова-омоніми	Прийменники	Сполучники
since	з	з тих пір, оскільки
till	до	до того як, до тих пір, поки
for	для	оскільки, тому що
after	після	після того як
before	перед	до того як, перш ніж
as	як, у якості	оскільки, в міру того як

§ 60. Зворот *to be going to*

Зворот ***to be going to*** означає *збиратись зробити щось у майбутньому.* В англійській мові є кілька форм вираження майбутньої дії, деякі з них можна виразити часовою формою дієслова, модальними дієсловами (тобто вони показують майбутню дію чи стан, намір, бажання, впевненість), а також зворотом *to be going to.* Цей зворот виражає впевненість підмета виконати дію в найближчому майбутньому:

I am going to write him a letter tomorrow. (Завтра я збираюсь написати йому листа.)

She is going to be a good nurse. (Вона збирається стати хорошою медсестрою.)

Зворот ***to be going to*** не вживається з дієсловами руху *to go, to come.* У цьому разі форма Present Continuous виражає намір підмета щось зробити в майбутньому:

Where are you going tomorrow? (Куди ти йдеш завтра?)

Із зворотом ***to be going to*** для вираження дії в майбутньому вживаються обставини часу:

tonight (this evening) – сьогодні ввечері
tomorrow – завтра
the day after tomorrow – післязавтра
tomorrow evening – завтра ввечері
in two days – через два дні
in a week – через тиждень
in a month – через місяць
in a year – через рік
next week (month, year) – наступного тижня (місяця, року)

§ 61. Дієслово у Future Simple, Future Continuous (Майбутній неозначений та тривалий часи)

1. ***Future Simple*** – часова форма дієслова, що виражає дію, яка відбуватиметься в майбутньому; вживається зі словами: *next Monday, tomorrow, the day after tomorrow, etc.*

2. ***Future Simple*** утворюється за допомогою допоміжних дієслів ***shall*** (для першої особи)/***will*** (для другої і третьої осіб) та основного дієслова у початковій формі. У розмовній мові ***shall/will*** скорочується до ***'ll***, наприклад:

I shall come home soon. (Я скоро прийду додому.)

He'll wait for you in the street. (Він чекатиме тебе на вулиці.)

3. Питальні та заперечні речення будують дієслова ***shall/will.***

When will he be at home? (Коли він буде вдома?)

We shall not go there again. (Ми не підемо туди знову.)

Запам'ятайте:

shall not = shan't; will not = won't

4. У підрядних реченнях умови й часу майбутній час не вживається, замість нього вживається *Present Simple*:

If you come, I shall give you the book. (Якщо ти прийдеш, я дам тобі книгу.)

He won't stay at home when his aunt comes to look after him. (Він не залишиться вдома, якщо його тітка прийде доглядати за ним.)

5. ***Future Continuous*** означає тривалу дію, яка відбуватиметься в певний момент чи період часу в майбутньому; вживається зі словами: *all morning, at 2 o'clock, from 7 to 8, at that moment tomorrow* (вживання див. § 73).

6. Цей час утворюється за допомогою дієслова ***to be*** у майбутньому часі та основного дієслова із закінченням ***-ing***.

I shall be working all night. (Я пропрацюю всю ніч.)

She will be answering many questions. (Вона відповідатиме на багато питань.)

7. Питальні та заперечні речення також будують дієслова ***shall/will***:

Who will be doing exercises? (Хто буде робити вправи?)

Nick won't be sitting on the same place. (Нік не буде сидіти на одному місці.)

§ 62. Питально-заперечні речення

Такі речення починаються допоміжними дієсловами із заперечною часткою ***not***: *don't, doesn't, didn't, won't, shan't, isn't, wasn't, weren't, haven't, can't, may not, mustn't* та інші.

Why don't you know the lesson? (Чому ти не готовий до заняття?)

Заперечна форма загального питання виражає здивування:

Didn't he know about it? (Невже він не знав про це?)

Isn't he coming to see us? (Хіба він не йде до нас в гості?)

Weren't you late? (Хіба ви не запізнились?)

§ 63. Дієслово у Present Perfect (Теперішній завершений час)

1. Дієслова в **Present Perfect** виражають щойно завершену дію, пов'язану певною мірою з дією, яка передувала їй. Цей час утворюється за допомогою дієслова ***have/has*** + ***III форма дієслова***, тобто:

have/has + Participle II

У питальному реченні дієслова ***have/has*** ставляться перед підметом, у заперечному до нього приєднується заперечна частка ***not***:

He has closed the door. (Він (вже) закрив двері.)

Have you written a letter? (Ти написав лист?)

He hasn't done the exercise. (Він не зробив вправу.)

2. **Вживання.**

Present Perfect вживається для вираження дії, яка відбулася до моменту мовлення, і той, хто говорить, має на увазі результат цієї минулої дії, її важливість на момент мовлення:

He has written the book. (Він написав книгу (ось вона, можете її прочитати)).

He has read the article. (Він прочитав статтю (знає її зміст)).

Також цей час вживається для вираження завершеної дії щодо періоду часу, що все ще триває.

I have seen him today. (Я вже бачив його сьогодні.)

Порівняйте:

She has seen him in the morning. (Вона бачила його вранці (розмова відбувається вранці)).

She saw him in the morning. (розмова відбувається пізніше: вдень чи ввечері)

3. **Present Perfect** часто вживається зі словами:

ever – коли-небудь	never – ніколи
yet – вже, ще	not yet – ще не
once – одного разу	seldom – рідко
often – часто	already – вже
just – щойно	lately – недавно
recently – останнім часом	up to now – до цих пір
many times – багато разів	since – з тих пір

My brother has never been to Lviv. (Мій брат ніколи не був у Львові.)

He has just visited her. (Він щойно її відвідав.)

§ 64. Вживання Present Perfect

Present Perfect також вживається для вираження дії, яка почалася в минулому і все ще триває зараз (часто з дієсловами, що не вживаються в часі Continuous). На українську мову дієслово-присудок перекладається у теперішньому часі недоконаного виду.

Щоб показати незавершеність часу, в реченні вживають обставину з прийменником ***for*** чи слово ***since***:

for a long time – довго, давно;

for years – протягом багатьох років;

for ages – цілу вічність;

since June – з червня.

I have known him for ages. (Я знаю його дуже давно.)

I haven't seen him since he went to Spain. (Я не бачив його з тих пір, як він поїхав до Іспанії.)

§ 65. Складнопідрядні означальні речення

1. Підрядне означальне речення, що стоїть після означувального слова, як правило, комою не виділяється, вводиться сполучниковими словами *who, whom, whose, which, that, where, when, why, how.*

Якщо перед ***which*** є кома, це означає, що підрядне речення відноситься до всього головного і починається переклад із ***що***, порівняйте:

I translate many papers which I take at the library. (Я перекладаю багато статей, які беру в бібліотеці.)

I translate many papers, which helps me in my work. (Я перекладаю багато статей, що допомагає мені в роботі.)

2. Слово ***that*** не вживається після власних назв та іменників із вказівними та присвійними займенниками, воно вживається після ***who*** і ***which***:

1) після прикметників найвищого ступеня і після порядкового числівника:

He is one of the greatest doctors that have ever lived. (Він один із найвидатніших лікарів, що жили коли-небудь.)

2) після слів *some, any, something, much, little, all, nothing, everything, anything:*

All that she was doing was useless. (Все, що вона робила, було марним.)

3) після одночасно вжитих іменників, що потребують один *who*, а другий *which:*

He spoke of men and countries that he had seen during his trip. (Він розповідав про людей і країни, які він бачив під час своєї подорожі.)

3. Схема безсполучникового підрядного означального речення:

noun	noun	verb

The patient the doctor examines is old. (Пацієнт, якого обстежує лікар, похилого віку.)

§ 66. Дієслово у Past Perfect (Минулий завершений час)

1. Дієслова в Past Perfect означають дію, яка завершилась до певного моменту в минулому. Цей час іще називають відносним, оскільки із теперішнім моментом зв'язку немає! Часто вживається з прийменником ***by***. Утворюється – ***had +Participle II***:

I had read the book by two o'clock yesterday. (Я прочитав книгу вже до двох годин вчора.)

2. Час ***Past Perfect*** може вживатися у складнопідрядному реченні часу, причому і в головному, і в підрядному – в залежності від того, яка дія відбулася раніше:

I had rung him up before I went home. (Я подзвонив йому перед тим, як пішов додому.)

We had already done the work when it began snowing. (Ми вже завершили роботу, коли пішов сніг.)

§ 67. Додаткові підрядні речення

1. Додаткові підрядні речення можуть приєднуватися до головного словами *that, who, where, when, how, why, if, whether, what, which, whom, whose*, які в підрядному реченні несуть певне навантаження, тобто виступають в ролі підмета, додатка, означення, обставини:

Do you know who wrote this book? (Ти знаєш, хто написав цю книгу?)

Show me which book you've read. (Покажи мені, яку книжку ти прочитав.)

I don't know how he did it. (Я не знаю, як він це зробив.)

2. Підрядне додаткове речення зі словами ***if, whether*** перекладається зі сполучником ***чи***:

I don't know if she studies French. (Я не знаю, чи вона вивчає французьку.)

3. Схема безсполучникового додаткового речення:

verb	noun	verb

The patient knows the doctor is at the hospital. (Пацієнт знає, що лікар в лікарні.)

4. У підрядних додаткових реченнях панує правило узгодження часів.

§ 68. Підрядні обставинні речення (Adverbial Clauses)

Ці речення можуть бути на початку або в кінці головного, приєднуючись сполучниками часу, причини, місця, умови, способу дії, наслідку або прийменником:

часу	when, while, as, after, before, till, until, since, as soon as
місця	where
способу дії	as
мети	so that, in order to
причини	because, since, as, for
допустові	in spite of, despite, though, although
прийменником	because of

If we work much, we get good results. (Якщо ми багато працюємо, то отримуємо хороші результати.)

As the method is old it isn't used now. (Оскільки метод вже застарів, його не використовують зараз.)

The patient went to the hospital where the doctor sent him. (Хворий пішов до лікарні, куди його направив лікар.)

I couldn't go to the medical college yesterday because I was ill. (Я не зміг вчора прийти до медичного коледжу, тому що хворів.)

§ 69. Підсилювальна конструкція *it's ... that (who)*

Ця конструкція може виділяти підмет, додаток чи обставину. Схема:

It is (was) – підсилювальний член речення – that (which, who, where, when)

It was the boy who spoke English so good. (Це був той хлопчик, який так гарно розмовляв англійською.)

§ 70. Узгодження часів (Sequence of Tenses)

Узгодження часів відбувається лише в підрядних додаткових реченнях за умови, що в головному реченні дієслово-присудок вжите в одному з минулих часів. Тоді присудок підрядного речення узгоджується в часі з присудком головного речення.

1. Якщо присудок головного речення вжитий у теперішньому часі, то в підрядному присудок вживається в тому часі, якого вимагає зміст:

	the hospital is new	(є).
He says that →	the hospital was new	(була).
(каже)	the hospital will be new	(буде).

2. Якщо присудок головного речення вжитий у минулому часі, а дія підрядного відбувається одночасно з дією головного, то дієслово підрядного речення вживається в ***Past Simple***, а перекладається на українську мову теперішнім часом:

It showed that the method gave negative result. (Це показало, що метод дає негативний результат.)

3. Якщо дія підрядного речення передує дії головного, то вживаємо дієслово у ***Past Perfect*** у підрядному реченні, а перекладаємо на українську мову дієсловом у минулому часі.

I told Mike that he had entered the university. (Я сказала Майку, що він вступив до університету.)

А якщо дія підрядного речення слідувала за дією головного, то присудок підрядного вживається у ***Future-in-the-Past (shall/will → should/would)***:

She said that we should use the dictionary. (Вона сказала, що ми скористаємося словником.)

4. Якщо дія підрядного речення тривала, то дієслово вживається в одній із минулих форм ***Continuous*** (вживається дуже рідко).

Отже:

	She knew that (Вона знала, що)	
попередня	*одночасна*	*майбутня*
he had run across the street.	he ran across the street.	he would run across the street.
(він перебіг вулицю.)	(перебігає вулицю.)	(перебіжить вулицю.)

§ 71. Розділові запитання (Disjunctive Questions)

1. Розділові питання, як і загальні, вимагають ствердувальної або заперечної відповіді. Вони складаються з двох частин: перша – розповідне речення (ствердувальне чи заперечне), а друга – перепитування у вигляді короткого загального питання, у якому вживається допоміжне дієслово у відповідній формі та особовий займенник, що замінює підмет. Якщо перша частина питання – ствердувальна, тоді допоміжне (чи модальне) дієслово вживається із заперечною часткою ***not***, а якщо перша частина заперечна – дієслово вживається без заперечення:

You are a student, aren't you?

He is a doctor, isn't he?

My mother took me a book, didn't she?

I haven't come back till 5, have I?

We didn't go there, did we?

They can speak English well, can't they?

2. Відповідь ***так*** чи ***ні*** в українській мові і в англійській часто не співпадає:

Your father has a good car, hasn't he? – Yes. (У твого батька хороша машина, чи не так? – Так.)

Your father hasn't got a new car, has he? – No. (Yes, he has, and a very fine one.) (У вашого батька немає ж нової машини? – Так, немає. (Ні, є, і дуже хороша.))

§ 72. Висловлення прохання чи наказу першій чи третій особі

В англійській мові наказ, прохання, звертання до першої чи третьої особи виражають за допомогою дієслова ***let (дозволяти)*** та іменника в загальному відмінку чи займенника в об'єктному, що означає особу, до якої звертаються; а також інфінітива основного дієслова без частки ***to***:

Let us (Let's) go to the hospital together. (Давайте підемо в лікарню разом.)

Let my friend ask him. (Нехай мій друг запитає його.)

Let him send a letter to my friend. (Нехай він відішле лист моєму другові.)
Let me write a letter. (Давайте я напишу лист.)

§ 73. Дієслово у Future Continuous (Майбутній тривалий час)

1. Цей час утворюється за допомогою ***will/shall be + Participle I*** (див. § 61):

I shall be doing exercises tomorrow morning. (Я робитиму вправи завтра вранці.)

2. ***Future Continuous*** вживається:

а) для вираження дії у близькому чи віддаленому майбутньому, незалежно від того, чи є в реченні обставина часу, тобто це просто підкреслює факт тривалої дії:

He will be taking exam next week. (Він здаватиме екзамен наступного тижня.)

b) у цьому часі часто вживається дієслово ***to see*** в значенні *зустрічатися*:

We'll be seeing him next Sunday. (Ми зустрінемося з ним наступної неділі.)

c) тривалість дії може підтверджувати точна обставина часу або певна дія:

I'll be speaking to you again at 5 tomorrow. (Я переговорю з тобою знову о 5[ій] завтра.)

I shall be working when my sister visits me. (Коли моя сестра прийде до мене, я буду працювати.)

§ 74. Передача наказу чи прохання у непрямій мові

Наказ чи прохання виражаються дієсловами ***to ask*** (*просити, запитати*), ***to tell*** (*казати, говорити*), ***to order*** (*наказувати*), а далі йде стверджувальна чи заперечна форма інфінітива:

He asked her to come back. (Він попросив її повернутися.)

The nurse ordered the patient not to move. (Медсестра наказала пацієнту не рухатись.)

Порівняйте речення в прямій і непрямій мові:

She says, "Speak louder". (Вона каже: "Говори голосніше".)

She tells me to speak louder. (Вона каже (наказує) мені говорити голосніше.)

§ 75. Підрядні речення наслідку

Ці речення приєднуються до головного речення за допомогою сполучника *so... that; such ... that* (так ... що).

The child cries so loud that I can't work. (Дитя так голосно кричить, що я не можу працювати.)

Таким чином виражається наслідок, що витікає зі змісту головного речення:

That boy used to get ill about every week, so that he couldn't go to school. (Той хлопець майже кожного тижня хворів, отож він не міг ходити до школи.)

§ 76. Непряма мова (Indirect Speech)

При перетворенні прямої мови в непряму утворюється складнопідрядне речення з підрядним додатковим реченням зі сполучником ***that***, який часто не вживається:

He says, "School begins at eight". (Він каже:"Уроки починаються о 8[ій]".)

He says ***that*** school begins at eight. (He says school begins at eight.) (Він каже, що уроки починаються о 8[ій].)

При перетворенні прямої мови в непряму вказівні займенники та деякі обставини часу і місця змінюються:

Пряма мова	Непряма мова
this	that
these	those
now	then
here	there
today	that day
yesterday	the day before
the day before yesterday	two days before
tomorrow	the next day
the day after tomorrow	two days later
ago	before
next	the next

He said, "I live in **this** house". He said he lived in **that** house.
"I'll go there **tomorrow**", he said. He said that he'd go here **the next day**.

Примітка: Якщо в прямій мові зазначено точну дату минулої події, то при перетворенні її в непряму Past Simple не змінюється.

Наказове речення.

The teacher: Jill, go to the blackboard, please! The teacher told/asked Jill to go to the blackboard.

The teacher: Jill, don't speak quickly. The teacher told/asked Jill not to speak quickly.

Отже, в непрямій мові слова автора подаються іншою особою. В головному реченні вживаються такі дієслова, як *say, tell, ask, answer, reply, add* та ін., а непряма мова міститься у підрядному реченні.

1. Якщо дієслово в головному реченні стоїть у теперішньому часі, то час у підрядному реченні залишається той самий (приклад вище).

2. Якщо дієслово в головному реченні стоїть у минулому часі, то відбуваються такі зміни (згадайте правила узгодження часів):

у прямій мові	*у непрямій мові*
1. Present	1. Past
2. Past Simple Past Perfect	2. Past Perfect
3. Past Continuous Past Perfect Continuous	3. Past Perfect Continuous
4. Future	4. Future-in-the-Past

Але якщо час дії точно зазначено, Past Simple і Past Continuous залишаються без змін.

Зміна обставини

John: "I haven't seen Ann today."
"I saw her yesterday."
"I shall see her tomorrow."

John says (that) he hasn't seen Ann today.
John says he saw her yesterday.
John says he will see her tomorrow.

John said that he hadn't seen Ann that day.
John said he had seen Ann the day before.
John said he would see Ann the next (the following) day.

§ 77. Непрямі питання (Indirect Questions)

Загальне питання:

Victor: "Can I help you, Jane?" – Victor asked Jane whether/if he could help her.
Jane: "Did you see my pen?" – Jane wondered whether/if he had seen her pen.

Спеціальне питання:

Jack: "When is Mary's birthday?" – Jack wanted to know when Mary's birthday was.

Зверніть увагу:

порядок слів у непрямих питаннях сталий: підмет – присудок.

§ 78. Дієслово у Future Perfect (Майбутній завершений час)

Цей час вживається для вираження майбутньої дії, яка буде завершена до певного моменту або до початку іншої дії в майбутньому.

Цей момент може бути виражений точним часом, прислівником часу чи подією.

Утворюється: ***will/shall + have + Participle II.***

She will have written the letter by 3 o'clock.
Will you have chosen the gloves by that moment?
They won't have spoken about this problem by the end of the week.

У підрядних реченнях часу і умови замість ***Future Perfect*** вживається ***Present Perfect***:

As soon as they have finished the operation, they will go to the dressing room. (Як тільки вони завершать операцію, вони перейдуть до перев'язочної.)

§ 79. Ступені порівняння прикметників (Degrees of Comparison)

1. Якісні прикметники в англійській мові мають основну форму, вищий (comparative) і найвищий (superlative) ступені порівняння.

kind	–	kinder	–	the kindest
добрий	–	добріший	–	найдобріший

2. Утворення та правопис:

– одно- і двоскладові прикметники утворюють ступені порівняння за допомогою суфіксів ***-er***, ***-est***:

small – smaller – the smallest
narrow – narrower – the narrowest

– якщо прикметник закінчується на ***-e*** ("німу"), то при додаванні суфіксів вона не пишеться:

large	–	larger	–	the largest

– якщо прикметник закінчується на приголосну, а попередня голосна – коротка, то кінцева приголосна подвоюється:

big	–	bigger	–	the biggest
red	–	redder	–	the reddest

– якщо прикметник закінчується на ***-y***:

голосна + y + -er, -est:	gay	–	gayer	– the gayest
приголосна + y + -er, -est:	busy	–	busier	– the busiest

3. Багатоскладові прикметники утворюють ступені порівняння за допомогою слів more (less), the most (least) – більш (менш), найбільш (найменш):

difficult	–	more difficult	–	the most difficult
important	–	less important	–	the least important

4. Деякі прикметники утворюють ступені порівняння не за правилами:

good (хороший)	–	better	–	the best
bad (поганий)	–	worse	–	the worst
many/much	–	more	–	the most
far (далекий)	–	farther	–	the farthest
		further	–	the furthest

§ 80. Безособові речення (Impersonal Sentences)

Структура англійського безособового речення відрізняється від українського тим, що англійське завжди має підмет і присудок. Підметом служить безособовий займенник ***it***:

It is dark. (Темно.)

It is late. (Пізно.)

It is necessary. (Необхідно.)

Отже, іменна частина присудка в попередніх прикладах виражена прикметником. А також вона може виражатися іменником або числівником:

It's winter now. (Зараз зима.)

It's 7 a.m. (Сьома година ранку.)

Питальна і заперечна форми:

Is it warm now? (Зараз тепло?)

It won't be fine weather today! (Сьогодні не буде хорошої погоди!)

§ 81. Дієслово у Future-in-the-Past Indefinite (Майбутній час з точки зору минулого)

1. В англійській мові майбутня дія, що розглядається з точки зору минулого моменту, виражається часом ***Future-in-the-Past***. Цей час вживається у розповідях про минулі події або при передачі прямої мови непрямою для вираження слів автора.

In his notes he wrote that the patient would be prepared for the operation. (У щоденнику він написав, що пацієнта готуватимуть до операції.)

2. Цей час утворюється за допомогою допоміжних дієслів ***should, would*** та інфінітива основного дієслова без частки ***to***:

I should play in the yard. (Я гратимуся на подвір'ї (якщо не буде дощу).)

Порівняйте:

I shall play here. (Я буду гратися тут (факт).)

3. Питання і заперечення :

Should we start? (Розпочнемо?)

Would he speak? (Йому говорити?)

We shouldn't go there. (Ми не підемо туди.)

He wouldn't play. (Він не гратиме.)

4. Пасивний стан:

I should be examined. (Мене обстежать.)

He would be operated. (Його прооперують.)

We should be treated. (Нас вилікують.)

They would be written about in the article. (Про них напишуть у статті.)

§ 82. Умовні підрядні речення (Adverbial Clauses of Condition)

1. Підрядні умови – речення, що відповідають на питання *in what case?* (у якому випадку?), *on what condition?* (за яких обставин? за якої умови?).

До головного речення приєднуються сполучниками *if, in case, provided, unless:*

He will do the dressing unless he is busy. (Він зробить перев'язку, якщо не буде зайнятий.)

2. Умовні речення поділяються на дві групи:

1) підрядні реальної умови,

2) підрядні нереальної умови.

Підрядні речення реальної умови виражають умову як дійсний факт і можуть відноситись до теперішнього, минулого чи майбутнього часу:

If he has time, he reads medical magazines. (Якщо в нього є час, він читає медичні журнали.)

If he had time yesterday, he would come to him. (Якби в нього був час вчора, він прийшов би до нього.)

If he has time, he will phone you. (Якщо в нього буде час, він зателефонує тобі.)

Підрядні речення нереальної умови виражають умову не як дійсний факт, а як припущення. Вони в свою чергу поділяються на підрядні, у яких дія відбувається:

а) в теперішньому та майбутньому часі,

б) в минулому часі.

На українську мову всі вони перекладаються умовним способом:

If he had time (today, tomorrow), he would go to the hospital. (Якби він мав час (сьогодні, завтра), він пішов би до лікарні.)

If he had spoken to him, he would have chosen that girl. (Якби він переговорив з ним, той вибрав би ту дівчину.)

"Якби я, (ти, ми, ви, вони, він, вона) був би" перекладаються за допомогою дієслова ***to be*** у формі ***were***:

If he were taken ill, I should be sorry. (Якби він захворів, мені було б шкода.)

If I were younger, I should go abroad. (Якби я був молодший, поїхав би за кордон.)

§ 83. Неозначені займенники і прислівники, похідні від *some, any, no, every*

1. Неозначені займенники утворюють ряд похідних, другим компонентом яких є ***thing, body, one, where***:

something – щось, що-небудь, будь-що, дещо;

somebody, someone – хтось, хто-небудь, дехто;

somewhere – десь, де-небудь, куди-небудь, кудись, будь-куди;

anything – що-небудь; все, що можливо;

anybody, anyone – хтось, хто-небудь, всякий, будь-який;

anywhere – де-небудь, куди-небудь, де можливо, куди можливо;

nothing – ніщо, нічого;
nobody, no one – ніхто, нікого;
nowhere – ніде, нікуди;
everything – все;
everybody, everyone – всі;
everywhere – кругом, всюди.
Займенник ***no one*** завжди пишеться окремо.

2. Похідні займенники і прислівники від *some, any, no, every* вживаються в реченнях так, як і самі ці слова.

Прислівник ***nowhere*** вживається в основному як відповідь на питання:
– Where are you going? (– Куди ти йдеш?)
– Nowhere. (– Нікуди.)

3. Перераховані в пункті 1 займенники, як і іменники, вживаються як самостійні члени речення (підмет і додаток) на відміну від *some, any, no, every*, які в реченні є лише означенням до іменника:

Please, give me something to read. (Будь ласка, дай мені щось почитати.)
There is nothing in the room. (В кімнаті нічого немає.)

4. Якщо похідні слова виступають в ролі підмета, присудок вживається в однині!

Everybody was there in time. (Всі були там вчасно.)
Nobody likes injections. (Ніхто не любить ін'єкцій.)

5. У підрядних умовних реченнях після сполучника ***if*** завжди вживаються неозначені займенники *anybody, anyone, anything*:

If anybody rings me up, tell them I'll be at the hospital. (Якщо хтось мені зателефонує, скажи, що я в лікарні.)

6. Після похідних не вживається прийменник ***of***. В такому разі використовуються самі слова:

Some of them entered the medical college. (Хтось із них вступив до медичного коледжу.)
None of us could speak to him. (Ніхто з нас не зміг поговорити з ним.)

7. Після похідних займенників в реченні часто вживається ***else*** або означення, виражене прикметником:

Does anybody else want to answer? (Ще хтось хоче відповісти?)

8. Похідні *someone, somebody, anyone, anybody, nobody* і *everybody* можуть мати закінчення присвійного відмінка ***'s***:

I found somebody's bag yesterday. Is it yours? (Я знайшла чиюсь сумку вчора. Вона ваша?)

§ 84. Ступені порівняння прислівників (Degrees of Comparison of Adverbs)

1. Ступені порівняння можуть мати лише прислівники способу дії: *quickly (швидко), well (добре), correctly (вірно)* і неозначеного часу: *often (часто), early (рано), lately (пізно)*.

2. Одно- і двоскладові прислівники утворюють вищий і найвищий ступені, як і відповідні їм прикметники:

late	–	later	–	latest
fast	–	faster	–	fastest

3. Деякі прислівники утворюють ступені порівняння, змінюючи основу:

well	–	better	–	best
badly	–	worse	–	worst
many, much	–	more	–	most
little	–	less	–	least
far	–	further	–	furthest

4. ***Of all*** часто не вживається:

Which of you speaks English best of all? (Хто із вас говорить англійською найкраще?)

Which of you runs fastest (of all)? (Хто із вас бігає найшвидше?)

5. Прислівники, що закінчуються на ***-ly***, утворюють ступені порівняння за допомогою слів ***more, the most***:

correctly	–	more correctly	–	the most correctly.
attentively	–	more attentively	–	the most attentively
practically	–	more practically	–	the most practically
correctly	–	more correctly	–	the most correctly

§ 85. Порівняльні конструкції *as ... as, not so ... as*

Порівняння двох слів за якоюсь певною ознакою відбувається за допомогою слів ***as ... as***, якщо ж попереднє слово поступається наступному, то вживаємо ***not so ... as***:

The book is as interesting as the film. (Книга така ж цікава, як і фільм.)

The book is not so nice as the film. (Книга не така хороша, як фільм.)

§ 86. Іменникові та дієслівні безособові речення

1. Безособові речення типу *It is important to do* є різновидом іменникових безособових речень; відрізняються вони тим, що виражають відношення, думку про дію, виражену інфінітивом, який стоїть після прикметника:

It is difficult to put these cups. (Важко ставити ці банки.)

2. Коли мовець бажає вказати особу, яка виконує дію, виражену інфінітивом, вживається зворот із прийменником ***for***:

It is easy for him to carry out the prescription. (Йому легко виконувати рекомендації.)

В таких безособових реченнях найчастіше вживаються прикметники: difficult – важкий, strange – дивний, easy – легкий, possible – можливий, impossible – неможливий, necessary – необхідний.

3. Дієслівні безособові речення відрізняються від іменникових тим, що присудок у них – простий дієслівний – виражений безособовими дієсловами типу:

to rain (йти) – про дощ, to snow (йти) – про сніг.

It often rains in summer. – Влітку часто йде дощ.

4. Питальна і заперечна форми:

Does it often rain in autumn? (Восени часто йде дощ?)

Does it snow much in winter? (Взимку випадає багато снігу?)

It didn't snow much yesterday. (Вчора випало не дуже багато снігу.)

§ 87. Слова-замінники

1. Як зазначалося вище, замість іменника в однині вживається ***one***, у множині ***ones***.

I haven't got a dictionary, I must buy one. (В мене немає словника, мені треба його купити.)

I don't like these flowers, buy me other ones. (Мені не подобаються ці квіти, купи мені інші.)

This story is more interesting than that one. (Це оповідання цікавіше за те.)

My cell phone is old, I must buy another one. (Мій телефон вже старий, потрібно купити інший.)

2. Займенник ***one*** не вживається після присвійних займенників:

This is your bag, where's mine? (Це твій портфель, а де ж мій?)

3. Щоб уникнути повторення дієслова в якості слова-замінника, вживається дієслово ***to do*** у відповідній формі:

He speaks French better than I do. (Він говорить французькою краще, ніж я.)

4. Слово ***so*** вживається, щоб не повторювати частину речення чи все речення:

– Did he operate this patient yesterday? (– Він оперував цього пацієнта вчора?)

– I think so, but I'm not quite sure. (– Мабуть так, але я не впевнений у цьому.)

§ 88. Дієслово у Present Perfect Continuous (Теперішній перфектно-тривалий час)

Дієслово у формі ***Perfect Continuous*** виражає дію, яка розпочалася в минулому (або до початку іншої дії).

Форма ***Perfect Continuous*** утворюється з форми ***Continuous***:

to have been working

Дієслово ***to have*** є показником часу, утворює питання і заперечення.

Present Perfect Continuous перекладається дієсловом теперішнього часу недоконаного виду і часто додається слово ***вже/уже***, яке вказує на те, що дія, яка розпочалася в минулому, продовжується до цього часу.

I have been writing a paper for a month. (Я вже місяць пишу статтю.)

Форми Past Perfect Continuous та Future Perfect Continuous зустрічаються рідко.

А форми Perfect Continuous Passive зустрічається надто рідко.

§ 89. Подвійні ступені порівняння

Far → farther – the farthest (дальший – найдальший)
Far → further – the furthest

Old → older – the oldest (старіший – найстаріший)
Old → elder – the eldest (старший – найстарший)

Quickly → quicker – the quickest (швидше, найшвидше)
Quickly → more quickly – the most quickly

Slowly → slower – the slowest (повільніше, найповільніше)
Slowly → more slowly – the most slowly

§ 90. Дієслово у Past Perfect Continuous (Минулий перфектно-тривалий час)

Past Perfect Continuous утворюється за допомогою допоміжного дієслова ***to be*** у Past Perfect і дієприкметника теперішнього часу основного дієслова.

Стверджувальна форма:

I had been reading this book till 11. (Я читала цю книгу до 11.)

Питальна форма:

Had you been reading?

Заперечна форма:

You hadn't been reading.

Питально-заперечна форма:

Hadn't they been taking photos?

Вживається цей час для вираження тривалої дії, яка почалася до якогось моменту в минулому, продовжувалась у цей момент або закінчилася безпосередньо перед ним:

I explained that I had been looking for him for the last two hours. (Я пояснив, що вже дві години шукаю його.)

Із дієсловами, що не мають форми Continuous, замість *Past Perfect Continuous* вживається *Past Perfect*:

When we came to see the patient, he had been ill for two days. (Коли ми прийшли провідати пацієнта, він вже два дні хворів.)

§ 91. Вираз *should/would like to*

В англійській мові існує конструкція, що називається складним додатком. Вона складається з двох частин: перша – особа чи предмет (іменник у називному відмінку або займенник в об'єктному), друга – інфінітив, що виражає дію, яку виконує особа. Конструкція виконує в реченні функцію додатка, вживається лише після окремих дієслів і перекладається на українську мову за допомогою підрядного речення:

I should like you to read this article. (Я хотів би, щоб ти прочитав цю статтю.)

He would like us to begin the lesson. (Він хотів би, щоб ми розпочали заняття.)

§ 92. Дієслово у Future Perfect і Future Perfect Continuous (Майбутній завершений та майбутній перфектно-тривалий часи)

1. The Future Perfect Tense (Active and Passive Voice):

a) утворення: *shall/will have + Participle II*:

You will have chosen a present for her by that day. (Ти вибереш їй подарунок до того дня.)

b) питання і заперечення: *shan't/won't*:

We shall not have done the work by six o'clock. (Ми ще не зробимо цю роботу до шести годин.)

They won't have read the story by the end of the lesson, will they? (Вони не прочитають оповідання до кінця уроку, чи не так?)

c) вживається для вираження майбутньої дії, що закінчиться до певного моменту або до початку іншої майбутньої дії:

You'll have forgotten me by then. (Ти мене вже забудеш до тієї пори.)

I shall have written the paper by the time you come. (Я напишу статтю до того, як ти прийдеш.)

d) пасивний стан: *shall/will have been done*:

We shall have been examined by 3 o'clock. (У нас прийматимуть екзамен до 3-ї години.)

2. The Future Perfect Continuous Tense:

a) утворення: *shall/will have been + Participle I*:

You will have been going home by 10. (Ти будеш добиратися додому до 10-ї години.)

b) вживається для вираження тривалої дії, яка почнеться до якогось моменту в майбутньому або все ще триватиме в цей момент, чи завершиться безпосередньо перед ним:

I hope I shall have not been looking for him for a long time before I find him. (Я сподіваюся, що не шукатиму його довго перед тим, як знайду.)

c) з дієсловами, що не мають форми Continuous, замість Future Perfect Continuous вживається Future Perfect:

I shall not have seen the disease before we use X-ray. (Я не розпізнаю хворобу, поки ми не зробимо рентген.)

§ 93. Скорочені стверджувальні і заперечні речення типу

So shall I (я також) ***Nor did I (я також)*** ***Neither did he (він також)***

Ці речення вживаються для розповсюдження на якусь особу висловлювання, що спочатку відноситься до іншої особи (в українській мові: Я добре знаю біологію. Він також.).

Якщо перше речення стверджувальне, за ним іде також стверджувальне речення, яке складається із ***so*** і відповідного допоміжного дієслова та займенника чи іменника (дієслово узгоджується з ним в особі):

My friends enjoyed themselves in the country yesterday. So did I.

(Мої друзі гарно провели час за містом вчора. Я теж.)

Якщо перше речення заперечне, друге також буде заперечним, і складається воно із ***neither(nor)***, допоміжного дієслова і займенника (іменника):

I haven't heard him sing. Neither has my brother.

(Я не чув як він співає. Мій брат також. (не чув))

§ 94. Місце прислівників у реченні

На початку речення	В середині речення	В кінці речення
sometimes – іноді besides – крім того therefore – тому yet – однак however – однак naturally – звичайно today – сьогодні tomorrow – завтра yesterday – вчора then – тоді afterwards – пізніше now – зараз e.g. Afterwards he became a professor of medicine. – Пізніше він став професором медицини	always – завжди never – ніколи often – часто sometimes – іноді just – щойно still – ще usually – звичайно seldom – рідко a) перед основним дієсловом у Present, Past Simple: e.g. I often come to visit my friends; b) після дієслова ***to be***: e.g. He is still at work; c) після першого допоміжного дієслова: e.g. Volumes of liquids are usually expressed in milliliters	already – вже perfectly – цілком yet – ще ago – тому today – сьогодні tomorrow – завтра yesterday – вчора then – потім afterwards – пізніше now – зараз e.g. He became a professor of medicine afterwards. – Він став професором медицини пізніше

ЧАСТИНА III

§ 95. Infinitive (Інфінітив, неозначена форма дієслова)

Інфінітив – це неособова форма дієслова, яка називає дію і відповідає на запитання: *що робити? що зробити?*

Інфінітив має такі форми:

Форми	Active	Passive
Indefinite	to go	to be gone
Continuous	to be going	–
Perfect	to have gone	to have been gone
Perfect Continuous	to have been going	–

Вживання інфінітива:

1. Інфінітив у формі Indefinite вживається, якщо означає одночасну дію з присудком.

He was glad to see me.

2. Із дієсловами, що виражають намір, надію, бажання, інфінітив у формі Indefinite означає майбутню дію.

I hope to visit you next summer.

3. Із модальними дієсловами часто виражає майбутню дію, завжди вживається без частки ***to***.

They may come tomorrow.

4. Тривалий інфінітив вживається для вираження тривалої одночасної з присудком дії.

It was pleasant to be driving a car again.

5. Завершений інфінітив виражає дію, що передує дії присудка.

I was glad to have done something.

§ 96. Функції інфінітива в реченні

Інфінітив може виступати в реченні:

1) як підмет:

To smoke is harmful for your health. (Палити шкідливо для вашого здоров'я.)

2) як предикатив (іменна частина складеного присудка):

The only right thing was to wait for him. (Єдине правильне рішення було зачекати на нього.)

3) як частина дієслівного складеного присудка:

Something had to be done. (Щось треба було зробити.)

4) як додаток:

She asked me to stay at home. (Вона попросила мене залишитись вдома.)

5) як означення:

I have no right to ask. (Я не маю права запитувати.)

6) як обставина мети:

I have come here to meet Mary. (Я прийшов сюди, щоб зустріти Мері.)

7) як обставина наслідку:

It was too late to come here. (Було вже дуже пізно, щоб прийти сюди.)

§ 97. Objective Infinitive Complex (Об'єктний інфінітивний комплекс)

I like Helen to sing this song. (Мені подобається, як Елен співає цю пісню.)

Підмет – **I**, присудок – **like**, додаток (що?) – ***Helen to sing*** і є об'єктним інфінітивним комплексом (зворотом). Він складається з двох частин: перша – іменник у загальному або займенник у об'єктному відмінку; друга частина – інфінітив.

Вживання

1. Після дієслів, що виражають сприймання за допомогою органів чуття *(to see, to feel, to watch, to observe, to notice)*. Після них частка *to* не вживається.

She saw Mary cry. (Вона бачила, що Мері плаче).

2. Після дієслів бажання, наміру, почуття *(to want, to wish, to like, to dislike, to hate)*.

Boris hates her to be always late. (Борис не може терпіти те, що вона завжди запізнюється.)

3. Із дієсловами, що виражають припущення, думку, погляд, сподівання *(to believe, to consider, to know, to suppose)*.

He believed her to come back. (Він вірив, що вона повернеться.)

4. Із дієсловами, що виражають наказ, прохання, дозвіл, пораду, примус *(to order, to ask, to request, to allow, to let)*.

The teacher allowed us to use a dictionary. (Вчитель дозволив нам користуватись словником.)

§ 98. Subjective Infinitive Complex (Суб'єктний інфінітивний комплекс)

I noticed the boy to run in the street. (Я помітив, що хлопчик біг вулицею.): the boy to run – об'єктний інфінітивний комплекс.

The boy was noticed to run in the street. (Помітили, як хлопчик біг вулицею.): the boy … to run – суб'єктний інфінітивний комплекс.

1) Він має функцію складного підмета в реченні і складається з двох частин:

перша – іменник чи особовий займенник у називному відмінку; друга – інфінітив із часткою *to*.

2) Перша частина відділяється від другої присудком, вираженим дієсловом у пасивному стані.

3) Вживається з дієсловами:

а) *to say, to report* у пасивному стані:

He is said to write a new book. (Кажуть, він пише нову книгу.)

б) дієслова, що виражають думку, погляд, сподівання, вживаються в пасивному стані:

He was known to have gone. (Знали, що він вже пішов.)

§ 99. Prepositional Infinitive Complex (Інфінітивний прийменниковий комплекс)

Інфінітивний комплекс може вводитись прийменником ***for*** і називається прийменниковим інфінітивним комплексом.

Він складається з іменника у загальному чи займенника у об'єктному відмінку, інфінітива з часткою ***to***, перед ними вживається прийменник ***for***.

It's time for us to go home. (Нам пора іти додому.)

Функції в реченні:

а) підмет:

For me see you is the happiest moment now. (Побачитися з тобою – це найщасливіша хвилина в моєму житті.)

б) предикатив:

That's for you to think on. (Про це тобі треба подумати.)

в) додаток:

He waited for me to speak. (Він чекав, поки заговорю я.)

г) означення:

There is nobody here for him to play with. (Тут нема нікого, з ким він міг би гратися.)

д) обставина мети чи наслідку:

It was too dark for him to see me at once. (Було дуже темно, щоб він міг одразу мене побачити.)

§ 100. Особливості перекладу інфінітивних комплексів

Інфінітивних комплексів є три:

– об'єктний інфінітивний комплекс;

– суб'єктний інфінітивний комплекс;

– прийменниковий інфінітивний комплекс.

1. Об'єктний інфінітивний комплекс перекладається на українську мову підрядним додатковим реченням:

I wanted her to read this book. (Я хотіла, щоб вона прочитала цю книжку.)

2. Речення з суб'єктним інфінітивним комплексом перекладаються складнопідрядними реченнями. Починати переклад слід із присудка, який в українській мові перетворюється на *безособове* або *неозначено-особове речення.* Перша частина комплексу – іменник чи займенник – стає підметом підрядного речення, а інфінітив стає особовою формою дієслова-присудка підрядного речення.

His father is said to work as a surgeon at this hospital. (Кажуть, що його батько працює хірургом в цій лікарні.)

Mr. Black was seen to examine his patients very attentively. (Бачили, що містер Блек обстежує своїх пацієнтів дуже уважно.)

§ 101. Participle (I) (Present), Participle II (Past), Perfect Participle (Дієприкметники)

1. Дієприкметник – це неособова форма дієслова, що не має власного значення часу, має ознаки дієслова, прикметника чи прислівника.

Форми дієприкметника:

	Active	Passive
Participle I	asking	being asked
Participle II	–	asked
Perfect Participle	having asked	having been asked

2. ***Present Participle (I)*** утворюється від інфінітива дієслова і закінчення ***-ing***; перекладається на українську мову або дієприкметником, або дієприслівником, або підрядним реченням тощо:

письмовий

writing

що пише

читальний, що читає

reading

читаючи

що формує, формувальний

forming

формуючи

The doctor examining the patient noticed the rash on the skin. (Лікар, оглядаючи хворого, помітив висип на шкірі.)

3. ***Past Participle (II)*** – це третя форма дієслова (правильні дієслова – із закінченням ***-ed***, а неправильні у третій колонці (див. Додаток 1)); означає завершену відповідно до присудка дію:

opened – відкритий

begun – розпочатий

The tumor revealed during the operation was not a malignant one. (Пухлина, виявлена під час операції, не була злоякісною.)

4. ***Perfect Participle*** виражає дію, яка передує дії присудка, перекладається на українську мову дієприслівником доконаного виду:

Having entered the ward, the doctor began to examine his patients. (Зайшовши у палату, лікар почав оглядати своїх пацієнтів.)

Часто ***Perfect Participle*** перекладається на українську підрядним реченням причини або часу:

Having been treated well, the patient recovered quickly. (Оскільки його лікували добре, пацієнт швидко одужав.)

§ 102. Значення й вживання дієприкметників

1. ***Present Participle*** не має певного часового значення, переклад залежить від змісту речення чи присудка:

a) одночасна дія з присудком:

Reading a book I write out new words.	Читаючи книгу, я виписую нові слова.
Reading a book I wrote out new words.	Читаючи книгу, я виписувала нові слова.
Reading a book I'll write out new words.	Читаючи книгу, я виписуватиму нові слова.

b) може виражати теперішню дію незалежно від присудка:

The students working in the garden came from Odesa. (Студенти, що працюють у саду, приїхали з Одеси.)

c) може передувати дії присудка:

Dressing myself I quickly went out. (Одягнувшись, я швидко вийшла.)

2. ***Past Participle*** є пасивним дієприкметником. Він вживається тоді, коли іменник чи займенник, до якого він відноситься, позначає об'єкт вираженої ним дії:

a written letter (написаний лист);

an operation made in this hospital (операція, зроблена в цій лікарні);

a) в основному виражає дію, що передує дії присудка:

We looked at the broken bridge. (Ми дивились на зруйнований міст.)

b) може виражати одночасну з присудком дію або ж безвідносну:

His father is a director known to everybody. (Його батько відомий всім директор.)

3. ***Present Participle Active*** вживається в ролі:

1) означення:

The rising sun was very large. (Сонце, що сходило, було дуже велике.)

2) обставини (часу, причини, способу дії):

Entering the room she saw her son. (Зайшовши до кімнати, вона побачила свого сина.)

Mary stood for some minutes in silence, watching and listening. (Мері стояла кілька хвилин мовчки, дивлячись і слухаючи.)

4. ***Present Participle Passive*** вживається в основному в ролі обставини:

Being written in pencil the letter was difficult to read. (Оскільки лист був написаний олівцем, його було важко читати.)

5. ***Past Participle*** найчастіше вживається в ролі:

1) означення:

He is a well-known artist. (Він відомий художник.)

2) предикатива:

When I came into the room, the window was broken. (Коли я зайшла в кімнату, вікно було розбите.)

§ 103. Objective Participial Construction (Об'єктний дієприкметниковий комплекс)

1. Складається з двох частин: іменника у загальному відмінку чи займенника у об'єктному і дієприкметника, який означає дію цього іменника чи займенника:

I saw him walking in the garden. (Я бачив, як він гуляв у саду.)

I want Boris changed. (Я хочу, щоб Борис змінився.)

2. Переважно виконує роль складного додатка:

She watched the snow falling. (Вона спостерігала, як падає сніг.)

Have you had your photo taken? (Вас сфотографували?)

3. Після дієслів: *to have, to get* вживається лише ***Past Participle***:

She had her hair done. (Їй зробили зачіску.)

§ 104. Subjective Participial Construction (Суб'єктний дієприкметниковий комплекс)

Перша частина – іменник чи займенник у називному відмінку, друга частина – дієприкметник, здебільшого ***Present Participle***:

A plane was heard flying high in the sky. (Було чути, як високо в небі летів літак.)

Суб'єктний дієприкметниковий комплекс вживається переважно з дієсловами, які виражають сприйняття за допомогою органів чуття *(to see, to hear, to feel, to watch, to notice, to observe)* у пасивному стані.

У реченні вони виконують роль присудка й стоять між першою та другою частинами комплексу, який виконує роль складного підмета.

She was seen running after a bus. (Було видно, як вона біжить за автобусом.)

My mother is heard baking the cake. (Чути, що моя мама пече торт.)

§ 105. Absolute Participle Complex (Незалежний дієприкметниковий комплекс)

Він складається з іменника (чи займенника) і дієприкметника, де перший виконує роль підмета у комплексі, хоч і не є підметом для всього речення:

The day being very fine, she went for a walk. (Оскільки день був дуже гарний, вона пішла на прогулянку.)

The letter being written, I went to post it. (Коли лист був написаний, я пішов його відправити.)

Her face smiling, she came into the room. (Усміхаючись, вона зайшла в кімнату.)

Цей комплекс може вводитись прийменником ***with***:

She was sitting on the chair with her head and one hand lying on the table. (Вона сиділа на стільці, поклавши голову і руку на стіл.)

§ 106. Gerund (Герундій)

1. ***Герундій*** – це неособова форма дієслова із закінченням ***-ing***, що має властивості іменника і дієслова. Герундій називає дію, як і інфінітив. В українській мові такої форми немає. Слова *слухання, читання* – іменники, що утворюються від дієслів "слухати" і "читати".

2. ***Дієслівні*** властивості герундія:

– вживається з прямим додатком:

I like reading books.

She began preparing food.

– може мати означення, виражене прислівником:

She continued listening attentively.

– має неозначену і перфектну форми, вживається в активному і пасивному стані:

	Active	Pasive
Indefinite	writing	being written
Perfect	having written	having been written

Seeing is believing. (Бачити – значить вірити.)

Thank you for helping me. (Дякую, що допомогли мені.)

She came without being invited. (Вона прийшла без запрошення.)

3. ***Іменникові*** властивості герундія:

– у реченні виконує властиві іменнику функції:

а) підмета: Smoking is harmful. (Палити шкідливо.)

б) додатка: She is fond of painting. (Вона захоплюється малюванням.)

– герундій може вживатися з прийменником, що відноситься до нього:

Nobody thought of going to bed. (Ніхто й не думав іти спати.)

– перед герундієм може вживатись присвійний займенник або іменник у присвійному відмінку:

I insist on my sister's staying at home. (Я наполягаю на тому, щоб моя сестра залишилася вдома.)

§ 107. Вживання герундія

1. Герундій – єдина дієслівна форма, перед якою вживається прийменник:

Thank you for telling me.

2. Герундій може вживатися і без прийменника з такими дієсловами:

to avoid	уникати
to finish	закінчувати

to suggest	пропонувати
to leave off, to give up	переставати щось робити
to go on, to keep on	продовжувати
cannot help	не можу не (робити щось)
to enjoy	отримувати задоволення
to excuse, to forgive	вибачати
to put off, to postpone	відкладати
to delay	затримувати
to mind	заперечувати (вживається в питальних і заперечних реченнях)

I don't mind telling you.

(Я не проти того, щоб вам розповісти.)

Fancy going for a walk in such weather!

(Уявіть собі прогулянку в таку погоду!)

Після слів *to want, to need, to require* герундій вживається в активному стані з пасивним значенням:

The house wants repairing. (Будинок потрібно відремонтувати.)

3. Після дієслів, поданих нижче, може вживатися як інфінітив, так і герундій:

to begin, to start	починати
to continue	продовжувати
to propose	пропонувати
to like	любити
to try	намагатися
to forget	забувати

The children began crying. (The children began to cry.)

4. У реченні герундій може виконувати такі функції:

а) *безприйменникового додатка:*

I don't feel like working. (У мене немає настрою працювати.)

б) *означення:*

I know her habit of giving presents to everybody. (Я знаю її звичку дарувати всім подарунки.)

в) *обставини часу, способу дії:*

They ate without talking. (Вони їли, не розмовляючи.)

§ 108. Gerund Constructions (Комплекси з герундієм)

1. Сполучення герундія з іменником чи займенником, які не є підметом чи додатком, – це герундіальний комплекс. Перша його частина – це іменник у загальному чи присвійному відмінку або присвійний займенник. Друга частина – це герундій, який визначає дію, що виконує чи зазнає особа чи предмет, позначений першою частиною:

They were afraid of my finding out the truth. (Вони боялися, що я дізнаюсь правду.)

2. Комплекс із герундієм може виконувати такі функції в реченні:

– підмета – Your coming here is very necessary.

– додатка – Forgive my saying it.

– означення – I don't know the reason for your coming.
– обставини – I entered the room without his seeing it.

§ 109. Переклад комплексів із герундієм

Герундій у реченні може відноситись до підмета чи додатка. Так, у реченні *He stopped working and smiled (Він припинив роботу і посміхнувся)* дія, виражена герундієм (working), відноситься до підмета.

У реченні *I don't forgive you for being late for dinner (Я не пробачаю вам того, що ви запізнились на обід)* герундій відноситься до додатка.

Але герундій може також відноситись до іменника або займенника, що не є підметом чи додатком речення. Цей іменник чи займенник завжди стоїть перед герундієм. Сполучення герундія з таким іменником чи займенником становить герундіальний комплекс.

Don't fear my forgetting aunt Alice. (Не бійтесь, що я забуду тітку Алісу.)

Герундій перекладається на українську мову:

а) *неозначеною формою дієслова (інфінітивом):*

I thought of coming to see you. (Я думала провідати вас.)

b) *іменником:*

He liked riding, rowing and fencing. (Він любив верхову їзду, веслування і фехтування.)

c) *предикативною формою дієслова (присудком) підрядного речення:*

Excuse my leaving you. (Пробачте, що я залишив вас.)

Необхідно розрізняти герундій та віддієслівний іменник. Віддієслівний іменник – це іменник, утворений від дієслова за допомогою закінчення ***-ing***.

§ 110. Gerund and Verbal Noun (Герундій та віддієслівний іменник)

Віддієслівний іменник також утворюється за допомогою закінчення ***-ing***, як і герундій, але він не має дієслівних властивостей, у нього лише іменникові ознаки:

а) він може вживатися з артиклем, вказівними займенниками, має форму множини:

the sittings of the committee (засідання комітету);

б) якщо віддієслівний іменник утворений від перехідних дієслів, то він не вживається з прямим додатком, а лише з додатком із прийменником:

the raising of living standard (підвищення життєвого рівня);

c) віддієслівний іменник означається прикметником (а не прислівником, як герундій та інші дієслівні форми):

I like rapid reading. (Я люблю швидке читання.)

§ 111. Conditional Clauses (Підрядні умовні речення)

1. Підрядні умовні речення в англійській мові найчастіше з'єднуються з головним реченням за допомогою сполучника ***if*** *(якщо, якби)*:

If I knew his address, I would write to him. (Якби я знав його адресу, я б написав йому.)

2. Умовні підрядні речення діляться на речення реальної і нереальної умови (§ 82). Речення реальної умови перекладаються на українську мову умовним реченням з

дієсловом-присудком у дійсному способі (підрядні речення виражають реальні, здійсненні припущення):

If he comes at seven, he will find me at home. (Якщо він прийде о сьомій, він застане мене вдома.)

Речення реальної умови стосуються майбутнього часу, але в підрядних вживається дієслово-присудок у теперішньому часі.

3. У реченнях нереальної умови присудок підрядного виражає дію, що суперечить дійсності, малоймовірну або зовсім нездійсненну.

If it were summer now, we should bathe in the river. (Якби зараз було літо, ми купалися б у річці.)

Щоб підкреслити малоймовірність дії підрядного речення нереальної умови, що стосується майбутнього часу, може вживатися сполучення форми ***were*** з інфінітивом (з часткою ***to***).

If they were to miss the train, they would take a taxi. (Якби вони запізнювалилися на поїзд, вони взяли б таксі.)

§ 112. Subjunctive Mood (Умовний спосіб)

1. Умовний спосіб дієслова виражає нереальну дію, тобто таку, яка могла б відбутися за певних умов, а також необхідну, бажану, або нездійсненну.

При перекладі українською мовою вживається форма дієслова у минулому часі з часткою *б (би)*.

Як уже зазначалось раніше (§§ 82, 111), в англійській мові є різні аспекти умовності:

а) умовні підрядні речення, що виражають реальні умови, які стосуються минулого, теперішнього і майбутнього часу, для реальних дій чи фактів, виражених у головному реченні:

The nurse will make an injection if the doctor prescribes it. (Медсестра зробить ін'єкцію, якщо лікар її призначить.)

б) умовні підрядні речення, що виражають неймовірні або малоймовірні припущення, які відносяться лише до теперішнього або майбутнього часу:

The nurse would make an injection if the doctor prescribed it. (Медсестра зробила б ін'єкцію, якби лікар її призначив.)

в) якщо умовне речення відноситься до теперішнього чи майбутнього часу, тоді в підрядному вживається форма ***Past Simple*** для всіх дієслів, крім ***to be***, яке матиме форму ***were*** для всіх осіб.

If I were to see the patient again, I should tell him about it. (Якби я знову побачив цього пацієнта, я сказав би йому про це.)

Примітка

Форма ***"were + інфінітив"*** завжди вказує на майбутній час.

У головному реченні вживаються форми:

should + основне дієслово (для першої особи однини і множини)

would + основне дієслово (для другої і третьої осіб однини і множини)

If he were interested in biology, he would read the article. (Якби він цікавився біологією, він прочитав би цю статтю.)

г) Умовні підрядні речення, що виражають нереальні умови для дій, виражених у головному реченні, оскільки стосуються минулого часу і тому не можуть бути виконані, в підрядному реченні вживатимуться у формі ***Past Perfect***, а у головному – ***should/would + Perfect Infinitive*** без частки ***to***:

I should have made him an injection, if the doctor had prescribed it. (Я зробила б йому ін'єкцію, якби лікар її призначив.)

2. У сучасній англійській мові для вираження умовного стану крім аналітичних (складних) форм, які було розглянуто вище, вживаються також синтетичні (прості). Синтетичні форми утворюються за допомогою дієслова ***to be***, яке в минулому часі має форму ***were*** для всіх осіб однини і множини. Ця форма вживається:

Дійсний спосіб

Реальної умови	Present	If he is not in the hospital, he is at a sanatorium.
	Past	If he was not in the hospital, he was at a sanatorium.
	Future	If he was not in the hospital, he will come.

Умовний спосіб

Малоймовірної умови	Present and Future	If the patient were better now (next week), we should discharge him.
Нереальної умови	Past	If the patient had been better last week, we should have discharged him.

а) у підрядних умовних реченнях другого типу:

If I were you, I should help them. (На твоєму місці я б допоміг їм.)

If he were here, he would accept the offer. (Якби він був тут, він би прийняв пропозицію.)

б) у підрядних реченнях способу дії, що починаються зі сполучника ***as if***:

He spoke as if he were a specialist in surgery. (Він говорив так, наче був спеціалістом у хірургії.)

в) у підрядних реченнях, що залежать від дієслова ***to wish***:

She wishes he were with her! (Як би вона хотіла, щоб він був з нею!)

They wish their children were at the university! (Як би вони хотіли, щоб їхні діти були в університеті!)

§ 113. Conjunction (Сполучник)

Парними сполучниками в англійській мові вважаються слова ***the... the***, що вживаються переважно з прикметниками та прислівниками вищого ступеня порівняння; як правило, на українську мову перекладаються словами ***чим ... тим***, після яких іде прикметник чи прислівник у вищому ступені.

You must have this tooth out, the sooner, the better.

(Вам потрібно видалити цей зуб, чим швидше, тим краще.)

Сполучники в англійській мові, як і в українській, вживаються для зв'язку членів речення і цілих речень у складному реченні. Вони виражають різні відношення між членами речення і між реченнями, але самі не є членами речення.

Nick **and** Pete are students. (Микола і Петро – студенти.)

Ask her **whether (if)** she can do it tomorrow. (Запитайте її, чи зможе вона зробити це завтра.)

За своєю структурою сполучники діляться на:

прості (складаються з одного кореня): *and, but, or, that, if, so, though* та ін.;

похідні (мають у своєму складі суфікси або префікси): *unless, because, until* та ін.;

складні (складаються з двох, рідше з трьох коренів): *therefore, however, nevertheless* та ін.;

складені (складаються з кількох слів): *as soon as, as well as, in order to, as if* та ін.

Деякі складені сполучники називаються парними, тому що вони складаються з двох частин, розділених іншими словами: *not only ... but also* (не тільки ... але й); *both ... and* (як ... так і); *neither ... nor* (ні ... ні.)

В англійській мові, як і в українській, залежно від функції сполучника розрізняють:

сполучники сурядності (coordinating conjunctions);

сполучники підрядності (subordinating conjunctions).

Сполучники сурядності з'єднують однорідні члени речення, а також окремі речення. Вони поділяються на три основні групи:

єднальні (copulative):

and і, та; *as well as* так само, як і; *both ... and* як ... так і; *not only .... but also* не тільки ... а й; *neither ... nor* ні ... ні:

The sun had set ***and*** he turned homeward.	Сонце зайшло, і він повернув додому.
Neither his father ***nor*** his mother was like other people.	Ні його батько, ні мати не були схожі на інших людей.

розділові (disjunctive):

or або, чи, інакше; *either ... or* або ... або

Now you must hurry ***or*** you'll be very late for work.	Тепер ти мусиш поспішати, інакше запізнишся на робот.

протиставні (adversative):

but але; *yet* проте; *still* все ж; *whereas* тоді як:

He worked for some time in silence ***but*** no one came to the kitchen.	Деякий час він працював мовчки, але до кухні ніхто не заходив.

§ 114. Складені прийменники та сполучники

Прийменники передають відношення іменника, займенника, числівника чи герундія до дієслова або до іншого іменника, а сполучники вживаються для з'єднання членів речення чи речень.

Список найбільш уживаних складених прийменників та сполучників

Прийменник/ Сполучник	Переклад	Приклад
to be about to	збиратися, мати намір	They were about to leave for England on Sunday
above all	понад усе	Above all she likes reading novels
after all	зрештою	After all he will learn this rule

Прийменник/ Сполучник	Переклад	Приклад
all along	весь час	He was asking me all along
at all	взагалі, зовсім	I don't like this story at all
at first	спочатку	At first let's read this book
at last	нарешті	At last she came
at least	щонайменше	He knew at least five poems of R. Burns
not at all	зовсім (ніскілечки) не варто (дякувати)	– Thank you. – Not at all
by heart	напам'ять	We learn this poem by heart
by no means	ні в якому разі	Be late by no means
by the way	між іншим	By the way, my name is Bob
as for	щодо	As for this book, I didn't read it
for instance (example)	наприклад	Let's take this task, for instance
for ever	назавжди	He left the USA for ever
in order to	для того, щоб	He was in a hurry in order to be there in time
in spite of	незважаючи	In spite of rain he came
in vain	марно	All their jobs were in vain
in a word	одним словом	In a word we missed our train
and so on	і так далі	At the lesson we read, write, spoke and so on
on and on	без зупинки	He went on and on
over and over again	знову і знову	She came to him over and over again
as soon as	якнайшвидше	Do it as soon as possible
as well as	так само, як і	Steve knew English as well as his teacher
not only … but also	не тільки ... а й	Not only nurses but also doctors do these injections

ДОДАТОК 1

IRREGULAR VERBS
(ТАБЛИЦЯ НЕПРАВИЛЬНИХ ДІЄСЛІВ)

	I форма	II форма	III форма	Значення
1.	arise	arose	arisen	виникати
2.	be	was, were	been	бути
3.	bear	bore	born	народжувати
4.	become	became	become	ставати
5.	begin	began	begun	починати(ся)
6.	bend	bent	bent	гнути(ся)
7.	bind	bound	bound	зв'язувати
8.	bite	bit	bit	кусати (ся)
9.	bleed	bled	bled	стікати кров'ю
10.	blow	blew	blown	дути
11.	break	broke	broken	ламати(ся)
12.	breed	bred	bred	виховувати
13.	bring	brought	brought	приносити
14.	build	built	built	будувати
15.	burn	burnt	burnt	горіти
16.	buy	bought	bought	купувати
17.	catch	caught	caught	ловити
18.	choose	chose	chosen	вибирати
19.	come	came	come	приходити
20.	cost	cost	cost	коштувати
21.	cut	cut	cut	різати
22.	dig	dug	dug	копати
23.	do	did	done	робити
24.	draw	drew	drawn	тягти; малювати
25.	dream	dreamt	dreamt	мріяти
26.	drink	drank	drunk	пити
27.	drive	drove	driven	вести (машину), гнати
28.	eat	ate	eaten	їсти
29.	fall	fell	fallen	падати
30.	feed	fed	fed	годувати
31.	feel	felt	felt	почувати
32.	fight	fought	fought	боротися
33.	find	found	found	знаходити
34.	fly	flew	flown	літати
35.	forget	forgot	forgotten	забувати
36.	get	got	got	одержувати; ставати
37.	give	gave	given	давати
38.	go	went	gone	іти, ходити
39.	grow	grew	grown	рости; ставати
40.	hang	hung	hung	вішати, висіти
41.	have	had	had	мати
42.	hear	heard	heard	чути
43.	hide	hid	hidden	ховати

44.	hold	held	held	тримати
45.	hurt	hurt	hurt	завдавати болю; боліти
46.	keep	kept	kept	зберігати; тримати
47.	know	knew	known	знати
48.	lay	laid	laid	класти, покласти
49.	lead	led	led	вести
50.	learn	learnt	learnt	вчити(ся)
51.	leave	left	left	залишати
52.	lend	lent	lent	позичати
53.	let	let	let	дозволяти; здавати в оренду
54.	lie	lay	lain	лежати
55.	lose	lost	lost	губити
56.	make	made	made	робити
57.	mean	meant	meant	значити
58.	meet	met	met	зустрічати
59.	pay	paid	paid	платити
60.	put	put	put	класти
61.	read	read	read	читати
62.	ride	rode	ridden	їздити верхи
63.	rise	rose	risen	підніматися
64.	run	ran	run	бігти
65.	say	said	said	сказати
66.	see	saw	seen	бачити
67.	sell	sold	sold	продавати
68.	send	sent	sent	посилати
69.	set	set	set	ставити, установлювати
70.	shake	shook	shaken	трясти
71.	shine	shone	shone	сяяти
72.	show	showed	shown	показувати
73.	shrink	shrank	shrunk	зморщуватися, збігатися
74.	shut	shut	shut	зачиняти
75.	sing	sang	sung	співати
76.	sink	sank	sunk	опускати(ся); тонути
77.	sit	sat	sat	сидіти
78.	sleep	slept	slept	спати
79.	smell	smelt	smelt	пахнути, нюхати
80.	speak	spoke	spoken	розмовляти
81.	spend	spent	spent	витрачати
82.	spoil	spoilt	spoilt	псувати
83.	spread	spread	spread	поширювати
84.	stand	stood	stood	стояти
85.	steal	stole	stolen	красти
86.	stick	stuck	stuck	приклеювати
87.	sting	stung	stung	жалити
88.	swim	swam	swum	плавати
89.	swing	swung	swung	гойдатися
90.	take	took	taken	брати
91.	teach	taught	taught	вчити
92.	tear	tore	torn	рвати

93.	tell	told	told	казати
94.	think	thought	thought	думати
95.	throw	threw	thrown	кидати
96.	understand	understood	understood	розуміти
97.	wake	woke	woken	прокидатися
98.	wear	wore	worn	носити
99.	win	won	won	перемагати
100.	wind	wound	wound	заводити
101.	write	wrote	written	писати

ДОДАТОК 2

MODAL VERBS (МОДАЛЬНІ ДІЄСЛОВА)

Can (could) – могти, уміти, бути спроможним; виражає сумнів.

May (might) – могти, мати змогу; можливо, мабуть.

Must – треба, мушу, необхідно, маю, повинен, зобов'язаний.

Після них вживаються смислові дієслова без частки ***to***. Вони мають деякі особливості:

– не змінюються за особами і числами (закінчення ***-s*** немає).

He can dance.

– не мають форм інфінітива, герундія та дієприкметника;

– не потребують допоміжних дієслів при утворенні питань і заперечень.

May I come in? She cannot.

Дієслова ***can*** і ***may*** мають минулий час (***could*** і ***might***), а ***must*** не має.

Замість ***can*** і ***could*** може вживатись словосполучення ***to be able to*** в теперішньому, минулому, майбутньому часах.

She was (is, will be) able to do it in time. (Вона змогла (може, зможе) зробити це вчасно.)

Для вираження дозволу в значенні ***may*** і ***might*** можна вжити ***to be allowed to, to be permitted to*** у всіх часах.

We were (are, shall be) allowed to take part in the competitions. (Нам дозволили (дозволяють, дозволять) брати участь у змаганнях.)

Дієслово ***may*** може виражати побажання, надію:

May all your dreams come true. (Нехай здійсняться всі ваші мрії.)

Дієслово ***must*** може виражати необхідність, впевненість:

You must buy this book. (Вам слід придбати цю книжку.)

He must be 30. (Йому, напевно, тридцять.)

У значенні ***must*** може вживатися словосполучення ***to have to*** у всіх часах:

She had (has, will have) to speak to him. (Вона повинна була (мусить, буде змушена) переговорити з ним.)

У таблиці це виглядає так:

Past	Present	Future
Could was able to were able to	Can am is able to are	– shall be able to will be able to
Might was allowed to were allowed to	May am is allowed to are	– shall be allowed to will be allowed to
had to	Must am is to are have to has	– shall have to will have to

У модальному значенні також вживаються дієслова ***shall/should*** (виражають необхідність, обов'язок); ***will/would*** (виражають можливість, бажання); ***have to*** (виражає необхідність, спонукання); ***be to*** (виражає намір, планування); ***ought to*** (виражає повинність, рекомендацію); ***need to*** (виражає необхідність).

У таблиці показано можливі варіанти перекладу модальних дієслів та їх еквівалентів на українську мову.

Модальне дієслово	Значення	
	автор наполягає	автор припускає
must	повинен, необхідно, потрібно, слід і т.д.	повинно бути, напевно, вірогідно
have to	повинен, доводиться, змушений, потрібно, слід і т.д.	
be to	повинен, належить, планується, є намір і т.д.	
shall	повинен, потребується, належить, зобов'язаний	
ought to	слід, належить, рекомендується	
should	необхідно було б, добре було б	цілком вірогідно (можливо), слід очікувати
may/might	а) можна, дозволяється, припустимо; б) можливо	могло б бути, вірогідно
can/could	можливо, здійсненно	вірогідно, можливо
will/would	а) з охотою, бажано, обов'язково; б) хотілося б	а) повинно бути, звичайно; б) могло б
need to	потребувати	необхідно

MEDICAL DICTIONARY

Aa

abdomen [æb'dəʊmen] *n* черевна порожнина, живіт; *acute (surgical) a.* гострий живіт

abdominal [æb'dɒminəl] *a* черевний або абдомінальний; *a. cavity* черевна порожнина

able ['eibl] *a* спроможний, здатний, умілий, вправний; *to be a.* бути спроможним, могти

abnormal [æb'nɔ:məl] *a* неправильний, ненормальний

abnormality [ˌæbnɔ:'mæliti] *n* ненормальний стан, аномалія, порушення, розлад

about [ə'baʊt] *prp* про, *adv* приблизно, близько; *to be a.* + *inf* збиратися щось зробити

above [ə'bʌv] *a* вищезгаданий; *adv* нагорі, вище; *prep* над, понад; *a. all* над усе, передусім

abscess ['æbsis] *n* абсцес, нарив

absence ['æbsəns] *n* відсутність

accelerate [æk'seləreit] *v* прискорюватися

accept [ək'sept] *v* приймати, погоджуватися; *generally accepted* загальноприйнятий

accident ['æksident] *n* нещасний випадок, аварія

accommodation [əˌkɒmə'deiʃn] *n* пристрій; приміщення

accompany [ə'kʌmpəni] *v* супроводжувати; проводити

accomplish [ə'kʌmpliʃ] *v* виконувати, закінчувати, завершувати

according [ə'kɔ:diŋ] to *adv* відповідно до, згідно; *a. to the patient* зі слів хворого

account [ə'kaʊnt] *n* опис, думка, оцінка, звіт (of); *v* звітувати; пояснювати *(for)*; *to take into a.* брати до уваги

ache [eik] *n* біль; *v* боліти, нити; *backache* біль у спині, у попереці; *earache* біль у вусі; *stomachache* біль у шлунку

achieve [ə'ʧi:v] *v* досягати

acid ['æsid] *n* кислота; *a.-base balance* кислотно-лужна рівновага; *a.-fast bacilli* кислотостійкі мікроби

acquaint [ə'kweint] *v* знайомити, ознайомити; *to get acquainted with* познайомитися з

act [ækt] *v* діяти, поводитися

activity [æk'tiviti] *n* діяльність, активність

acute [ə'kju:t] *a* гострий, тяжкий

add [æd] *v* додавати

addition [ə'diʃn] *n* додаток, доповнення; *in a. (to)* на додаток до, крім того, до того ж

adequate ['ædikwit] *a* відповідний, адекватний, достатній

adhesion [əd'hi:ʒn] *n* зрощення, спайка; прилипання, злипання

administer [əd'ministə] *v* вводити; призначати, давати (ліки); застосовувати (лікарський засіб)

administration [ədˌminis'treiʃn] *n* введення; призначення, застосування (ліків, дієти, лікувального методу)

admission [əd'miʃn] *n* прийом, госпіталізація

admit [əd'mit] *v* приймати (в лікарню); *to be admitted to the hospital* бути госпіталізованим

adult [ə'dʌlt] *n* дорослий

advance [əd'vɑ:ns] *v* пересуватися вперед; висувати; *n* поліпшення; *advanced age* похилий вік; *a. stage of the disease* задавнена стадія хвороби; *far advanced tumor* пухлина, яка сильно розрослася

advice [əd'vais] *n* консультація (лікаря), порада: *medical a.* медична порада (допомога); *to seek medical a.* звертатися за медичною допомогою

afebrile [ə'fi:brail] *a* без гарячки, афебрильний

affect [ə'fekt] *v* впливати, діяти на; уражати (про хворобу)

age [eidʒ] *n* вік; *at the a of* у віці; *a man aged 30* чоловік 30 років

agent ['eidʒənt] *n* засіб; чинник, фактор; агент; *causative a.* збудник

aid [eid] *n* допомога

air [ɛə] *n* повітря; *to be out in the open (fresh) a.* знаходитись на свіжому повітрі; *a. passages* дихальні шляхи

alert [ə'lɜ:t] *a* жвавий

alive [ə'laiv] *a* живий, бадьорий; *to be a. and well* бути живим і бадьорим
all [ɔ:l] *a* весь, вся, все, всі; *after all* зрештою; *all over* всюди, скрізь; *at all* взагалі, зовсім, цілком
allow [ə'laʊ] *v* дозволяти; *to a. a patient out of hospital* виписувати хворого з лікарні
almost ['ɔ:lməʊst] *adv* майже
alter ['ɔ:ltə] *v* змінювати(ся)
ambulance ['æmbjʊəns] *n* машина (швидкої допомоги); *an a. doctor* лікар швидкої допомоги; *to call an a.* викликати швидку допомогу
amount [ə'maʊnt] *n* кількість, величина, сума; *v* досягати, складати, становити, дорівнювати (чомусь – *a. to*); *total a.* загальна кількість, усього
amputate ['æmpjʊteit] *v* ампутувати, відтинати
anesthesia [ˌænis'θi:ziə] *n* знеболювання, анестезія; *to give (induce) a.* давати (вводити) наркоз; *under oxygen-ether a.* під киснево-ефірним наркозом; *local (general) a.* місцеве (загальне) знеболювання
anesthetic (anesthetic) [ˌænis'θetik] *n* анестезуючий (знеболюючий) засіб; *to give an a.* давати наркоз, знеболювати
analysis [ə'næləsis] (pl. analyses **[ə'næləsi:z]**) *n* аналіз, дослідження; *to make a blood a.* зробити аналіз крові; *go through (undergo) the necessary aa.* пройти необхідні аналізи
analyze ['ænəlaiz] *v* робити аналіз, досліджувати
angina pectoris [æn'ʤainə'pektəris] *n* грудна жаба, стенокардія
animal ['ænimәl] *n* тварина
ankle ['æŋkl] *n* щиколотка (кісточка)
anatomy [ə'nætəmi] *n* анатомія
anorexia [ˌænɒ'reksiə] *n* відсутність (втрата) апетиту
anterior [æn'tiəriə] *a* передній, що передує
antibiotic [ˌæntibai'ɒtik] *n* антибіотик
anxiety [æŋ'zaiəti] *n* тривога, неспокій, турбота
aorta [ei'ɔ:tə] *n* аорта
aortic [ei'ɔ:tik] *a* артеріальний
apex ['eipeks] (pl. apexes **['eipeksiz]**, apices **['eipisi:z]**) *n* верхівка
apparent [ə'pærənt] *a* очевидний, явний
appear [ə'piə] *v* з'являтися; здаватися
appearance [ə'piərəns] *n* зовнішній вигляд; зовнішність; поява
appendectomy [ˌæpən'dektəmi] *n* видалення червоподібного відростка (апендикса)
appendicitis [əˌpendi'saitis] *n* апендицит
appendix [ə'pendiks] *n* червоподібний відросток
appetite ['æpitait] *n* апетит
application [ˌæpli'keiʃn] *n* застосування; прикладання, накладання
apply [ə'plai] *v* застосовувати; прикладати
appointment [ə'pɔintmənt] *n* призначення (на посаду); побачення; зустріч; *to make an a. with a doctor for a given time* записатися до лікаря на певну годину
approach [ə'prəʊʧ] *n* підхід, метод; наближення; *v* наближатися, підходити
approximately [ə'prɒksimitli] *adv* приблизно
arch [ɑ:ʧ] *n* дуга
area ['єəriə] *n* область, площа, простір
arise [ə'raiz] (arose, arisen) *v* виникати, бути наслідком *(from)*
arm [ɑ:m] *n* рука (від плеча до кисті)
armpit ['ɑ:mpit] *n* пахва, пахвова ямка
arrange [ə'reinʤ] *v* приводити до ладу; розташовувати, організовувати, влаштовувати(ся)
arrest [ə'rest] *n* затримка, зупинка; *v* (при)зупиняти; *cardial a.* зупинка серцевої діяльності; *respiratory a.* затримка дихання; *to a. the process of inflammation* (при)зупинити процес запалення
artery ['ɑ:təri] *n* артерія
arthritis [ɑ:'θraitis] *n* запалення суглобів, артрит
article ['ɑ:tikl] *n* стаття; пункт; предмет, артикль
artificial [ˌɑ:ti'fiʃəl] *a* штучний
as [æz] *adv* як; у якості; *cj* у той час як, коли, поки; оскільки; *as for* що стосується; стосовно; *as if* нібито
ascend [ə'send] *v* підніматися
aspiration [ˌæspə'reiʃn] *n* вдихання; видалення (рідини) з порожнини
associate [ə'səʊʃieit] *v* пов'язувати(ся), з'єднувати(ся)

assume [ə´sju:m] вважати, припускати
asthma [´æsmə] *n* астма, ядуха
atrial [´eitriəl] *a* який відноситься до передсердя; *a. fibrillation (flutter)* тремтіння передсердь
atrium [´eitriəm] *n* передсердя
attack [ə´tæk] *n* напад; приступ хвороби; *v* уражати (про хворобу); руйнувати
attempt [ə´tempt] *n* спроба; *v* пробувати, намагатися
attend [ə´tend] *v* турбуватися, дбати, доглядати (когось щось); *to a. a patient* лікувати хворого
attention [ə´tenʃn] *n* увага; *to attract smb's a. to* привертати чиюсь увагу до; *to pay a. to smb/smth* звертати увагу на когось/щось
attribute [ə´tribju:t] *v* приписувати; відносити
auscultate [´ɔ:skəlteit] *v* вислуховувати (хворого)
autopsy [´ɔ:təpsi] *n* розтин трупа
available [ə´veiləbl] *a* придатний; корисний; дійсний, що є в наявності; доступний; *to be available* бути доступним, придатним для
average [´ævəridʒ] *a* середній; *v* дорівнювати в середньому (або становити, складати); *n* середнє число, середній рівень; *on a.* у середньому
avoid [ə´vɔid] *v* уникати

Bb

bacillus [bə´siləs] (pl bacilli **[bə´silai]**) *n* бацила; *tubercle b.* туберкульозна паличка, бацила
back [bæk] *n* спина, поперек, крижі; *backbone* хребет
bacteriologic(al) [bæk¸tiəriə´lɔdʒik(əl)] *a* бактеріологічний
bacteriology [bæk¸tiəri´ɔlədʒi] *n* бактеріологія
bad [bæd] *a* нездоровий; шкідливий; поганий; *a b. pain* сильний біль; *a b. tooth* хворий зуб; *to be b. for smb/smth* бути шкідливим для кого-небудь/чого-небудь; *to feel b.* погано себе почувати
band [bænd] *n* перев'язка
bandage [´bændidʒ] *n* пов'язка, перев'язка, бинт; *v* перев'язувати, бинтувати; *to apply (put) a b. around (on) smth* накласти пов'язку; *to take off (remove) the b.* зняти пов'язку
bare [bɛə] *a* голий, оголений, неприкритий; *v* оголювати, розкривати; *to b. one's arm to the elbow* закотити рукав до ліктя
basal [´beisl] *a* що лежить в основі, основний, базальний; *b. cell* базальна клітина; *b. metabolism* основний обмін
base [beis] *n* основа, база; *v* засновувати; *at the b. of* в основі; *to be based on* ґрунтуватися на
basic [´beisik] *a* основний
basis [´beisis] *n* основа; *on the b. of* на підставі
bath [bɑ:θ] *n* ванна; *general b.* загальна ванна; *mud b.* грязьова ванна; *pine salts b.* хвойна ванна; *to have a scalding foot b.* приймати гарячу ножну ванну
bear [bɛə] (bore, borne) *v* витримувати; *n* ведмідь; *Can you bear a little more?* Ви можете потерпіти ще трохи?
beat [bi:t] *n* биття, удар; *v* бити, вдарити
because of [bi´kɔ:z¸ɔv] через, внаслідок
bed [bed] *n* постіль, ліжко; *to be confined to b.* бути прикутим до ліжка; *to keep one's b. (stay in b.)* дотримуватися постільного режиму; *to follow a strict b. rest regime* дотримуватися суворого постільного режиму; *a bed-ridden patient* прикутий до ліжка хворий
bedside [´bedsaid] *to sit (watch) at a person's b.* доглядати хворого; *to have a good b. manner* знайти підхід до хворого (про лікаря)
behavior [´biheivjə] *n* поведінка
believe [bi´li:v] *v* думати, гадати; вірити
below [bi´ləu] *prp* під, нижче; *adv* нижче, внизу
benign [bi´nain] *a* доброякісний
bilateral [bai´lætərəl] *a* двосторонній
bile [bail] *n* жовч
biology [bai´ɔlədʒi] *n* біологія
biopsy [´baiɔpsi] *n* біопсія
birth [bɜ:θ] *n* народження; *to give b. to a child* народити дитину
bitter [´bitə] *a* гіркий
bladder [´blædə] *n* міхур

bleed [bli:d] *v* кровоточити, стікати кров'ю
bleeding [ˈbli:diŋ] *n* кровотеча
blind [blaind] *a* сліпий
block [blɒk] *n* блокада, перешкода; *v* затримувати, блокувати
blood [blʌd] *n* кров; *b. cell* клітина крові, кров'яне тільце; *b. circulation* циркуляція крові; *b. clot* згусток крові; *b. corpuscle* клітина крові, кров'яне тільце; *b. culture* посів (культура) крові; *b. flow* тік крові; *b. group* група крові; *b. sugar level* кількість (рівень) цукру в крові; *b. supply* кровопостачання; *b. urea (nitrogen)* азот у складі (сечовини) крові; *to conduct smb's. b. count* зробити аналіз крові
body [ˈbɒdi] *n* організм, тіло; *foreign b.* сторонній предмет
boil [bɔil] *n* фурункул; *v* кип'ятити
bone [bəun] *n* кістка
bone marrow [ˈbəunˈmærəu] *n* кістковий мозок
border [ˈbɔ:də] *n* кордон, край
born [bɔ:n] *p.p.* від *bear; to be b.* родитися; *a stillborn* мертвонароджений
both [bəuθ] ... and ... як ..., так і ...
bottle [bɒtl] *n* пляшка, бутель, флакон
bottom [ˈbɒtəm] *n* низ, дно; основа
bowel [ˈbauəl] *n* кишка; *large b.* товста кишка; *small b.* тонка кишка; *b. movement* випорожнення, кал, фекалії
brain [brein] *n* головний мозок
break [breik] (broke, broken) *v* вибухнути *(out);* ламати(ся), руйнувати(ся)
breast [brest] *n* груди, грудна залоза
breath [breθ] *n* дихання
breathe [bri:ð] *v* дихати
breathlessness [ˈbreθlisnis] *n* задишка
brief [bri:f] *a* короткий, стислий
bring [briŋ] (brought) *v* приносити; призводити; викликати *(about)*; *b. back to life* реанімувати, оживити
broad [brɔ:d] *a* широкий
bronchitis [brɔŋˈkaitis] *n* запалення бронхів, бронхіт
bruise [bru:z] *n* синець; гуля, забите місце
buggy [ˈbʌgi] *n* каталка; *to wheel a patient on a b.* доставити хворого на каталці
burn [bɜ:n] (burnt) *v* горіти, палати; припікати; обпікати; *n* опік
burning [ˈbɜ:niŋ] *a* гарячий, пекучий
but [bʌt] *adv* тільки, лише; *prp* крім; *cj* але, а; *but for* якби не; *all but* майже, ледве, мало не; *last but one* передостанній

Cc

call [kɔ:l] *n* виклик; *v* заходити, відвідувати; *(on)* звертатися, закликати; *to make a c.* піти на виклик; *to make a c. to the first aid station* подзвонити на станцію швидкої допомоги; *to c. in a doctor* викликати лікаря
calm [kɑ:m] *v* заспокоювати (к.-н.); *to c. down* заспокоюватися
cancer [ˈkænsə] *n* рак (хвороба)
capillary [kəˈpiləri] *n* капіляр; *a* капілярний
carcinoma [ˌkɑ:siˈnəumə] *n* ракова пухлина
cardiac [ˈkɑ:diæk] *a* серцевий; *c. action (activity)* діяльність серця; *c. enlargement* збільшення (розширення) серця; *c. failure* серцева недостатність; *c. output* серцевий викид
cardiovascular [ˌkɑ:diəuˈvæskjulə] *a* серцево-судинний
care [kɛə] *n* догляд, нагляд (лікаря); піклування, уважність, турбота; *v* піклуватися, доглядати *(for)*; *to be under constant c. of* знаходитися під постійним наглядом; *to take c. of* дбати про когось, доглядати когось
carotid artery [kəˈrɒtidˈɑ:təri] *n* сонна артерія
carry [ˈkæri] *v* нести, носити, підтримувати; *c. on* продовжувати; *c. out* проводити, виконувати
cartilage [ˈkɑ:tilidʒ] *n* хрящ
case [keis] *n* випадок; *c. history (report)* історія хвороби; *in c. of* у випадку; *missed c.* нерозпізнаний випадок (хвороба)
catarrh [kəˈtɑ:] *n* запалення слизової оболонки, катар
catch [kætʃ] *v* схопити; захворіти, заразитися; *to c. chill (cold)* застудитися
catching [ˈkætʃiŋ] *a* заразний
catheterization [ˌkæθiterai'zeiʃn] *n* введення катетера, катетеризація

cause [kɔ:z] *n* причина; *v* спричиняти, викликати
cavity [ˈkæviti] *n* порожнина
cell [sel] *n* клітина; *red (white) blood cc.* еритроцити (лейкоцити)
cellular [ˈseljʊlə] *a* клітинний
cerebral [ˈseribrəl] *a* мозковий
certain [ˈsɜ:tn] *a* якийсь; певний; *for c.* напевно; *to feel c.* бути впевненим; *to make c.* упевнитися в чомусь
cervical [ˈsɜ:vikəl] *a* шийний
chamber [ˈʧeimbə] *n* камера
change [ʧeinʤ] *n* зміна; переміна; *v* змінювати(ся)
charge [ʧɑ:ʤ] *n* відповідальність; ціна, вартість; *free of ch.* безкоштовно; *to be in ch. of* відповідати за
chart [ʧa:t] *n* таблиця; графік, діаграма, схема, карта; *temperature ch.* температурний листок
chemist [ˈkemist] *n* аптекар, фармацевт; *a chemist's* аптека; *a chemist's department* рецептурний відділ
chemotherapy [ˌki:məˈθerəpi] *n* хіміотерапія
chest [ʧest] *n* грудна клітка, груди
chickenpox [ˈʧikinˌpɒks] *n* вітряна віспа
chiefly [ˈʧi:fli] *adv* головним чином
child [ʧaild] (pl children) *n* дитина
chill [ʧil] *n* застуда; *to be chilled to the bone* промерзнути до кісток
choose [ʧu:z] (chose, chosen) *v* вибирати
chronic [ˈkrɒnik] *a* хронічний; застарілий
circulate [ˈsɜ:kjʊleit] *v* поширюватися; циркулювати
circulation [ˌsɜ:kjʊˈleiʃn] *n* кровообіг; обіг
circulatory [ˈsə:kjʊlətəri] *a* циркуляційний, кровоносний; *c. failure* розлад кровообігу; *c. system* система органів кровообігу
circumstance [ˈsɜ:kəmstəns] *n* обставина
clamp [klæmp] *n* скоба, затискач
cleanse [klenz] *v* чистити, дезинфікувати, очищати
clear [kliə] *a* ясний, світлий, чистий, прозорий; *v* очищати
clearance [ˈkliərəns] *n* чистка, очищення
clinical [ˈklinikəl] *a* клінічний
close [kləʊs] *a* закритий; близький; **[kləʊz]** *v* закривати
clot [klɒt] *n* згусток, тромб; *v* згортатися
cold [kəʊld] *n* застуда; холод; *a* холодний
collect [kəˈlekt] *v* збирати
colon [ˈkəʊlən] *n* товста кишка
color [ˈkʌlə] *n* колір, пігмент, забарвлення
combat [ˈkɒmbət] *v* боротися (з хворобою)
combine [kəmˈbain] *v* об'єднувати(ся), сполучати, змішувати
come [kʌm] to oneself опритомніти
common [ˈkɒmən] *a* загальний, звичайний, властивий; *in c. with* подібно
compare [kəmˈpɛə] *v* порівнювати, зіставляти
complain [kəmˈplein] of *v* скаржитися на (біль)
complaint [kəmˈpleint] *n* скарга; хвороба, недуга
complete [kəmˈpli:t] *a* повний, закінчений; *v* закінчувати, завершувати
complication [ˌkɒmpliˈkeiʃn] *n* ускладнення
compound [ˈkɒmpaʊnd] *n* суміш, сполука; *a* складовий, складний
concern [kənˈsɜ:n] *v* стосуватися, відноситися; цікавитися; *n* справа, відношення; участь, інтерес; *(so far) as concerned, as far as ... is concerned, (in) so far as ... is concerned* що стосується, коли мова йде про
concerning [kənˈsɜ:niŋ] *prp* відносно, щодо
conclusion [kənˈklu:ʒn] *n* висновок
condition [kənˈdiʃn] *n* стан (здоров'я); умова; становище
confirm [kənˈfɜ:m] *v* підтверджувати
confuse [kənˈfju:z] *v* змішувати, сплутувати
congenital [kənˈʤenitl] *a* природжений
congestion [kənˈʤestʃn] *n* застій, гіперемія, закупорювання
congestive [kənˈʤestiv] *a* застійний, переповнений кров'ю
connection [kəˈnekʃn]*n* зв'язок, з'єднання; *in c. with* у зв'язку з
conscious [ˈkɒnʃəs] *a* що усвідомлює (знає); свідомий; *to be c.* бути при свідомості (бути при пам'яті)
consciousness [ˈkɒnʃəsnis] *n* свідомість; *to lose one's c.* втратити свідомість, знепритомніти; *to recover (regain) one's c.* опритомніти, прийти до тями

consequently [ˈkɒnsikwentli] *adv* отже, тому, в результаті
consider [kənˈsidə] *v* вважати, брати до уваги, зважати на
considerable [kənˈsidərəbl] *a* значний
consist [kənˈsist] *v* складатися з *(of)*; полягати в; поєднуватися, збігатися (*with*)
consolidation [kənˌsɒliˈdeiʃn] *n* затвердіння; укріплення; зміцнення
constant [ˈkɒnstənt] *a* постійний, незмінний, сталий
constipation [ˌkɒnstiˈpeiʃn] *n* закреп
constitute [ˈkɒnstitju:t] *v* складати, засновувати; утворювати
constriction [kənˈstrikʃn] *n* звуження, скорочення
consultation [ˌkɒnsəlˈteiʃn] *n* консультація; консиліум (лікарів)
contain [kənˈtein] *v* містити або мати в собі, вміщати
contamination [kənˌtæmiˈneiʃn] *n* забруднення, зараження
contents [ˈkɒntənts] *n* вміст; зміст
contract [kənˈtrækt] *v* стискати(ся), скорочувати(ся)
control [kənˈtrəʊl] *n* управління; перевірка; *v* керувати; контролювати, перевіряти; регулювати; *to c. bleeding* зупиняти кровотечу; *to c. a disease* контролювати хворобу; *to c. pain* заспокоювати біль
convalescence [ˌkɒnvəˈlesns] *n* видужування, одужання
convalescent [ˌkɒnvəˈlesnt] *a* що одужує
convenient [kənˈvi:njənt] *a* зручний
correct [kəˈrekt] *a* правильний; *v* виправляти, поправляти; регулювати; *c. to* ... з точністю до ...
costal [ˈkɒstl] *a* реберний
cough [kɔ:f] *n* кашель; *v* кашляти, відхаркувати (*out/up*); *a bad (harsh, dry, nonproductive) c.* сильний (сухий) кашель
count [kaʊnt] *n* рахунок, підрахунок; *v* рахувати, підраховувати
course [kɔ:s] *n* хід, течія, курс
cover [ˈkʌvə] *v* вкривати, покривати; охоплювати, містити в собі
cramp [kræmp] *n* корчі, судома
cranial [ˈkreiniəl] *a* черепний
culture [ˈkʌltʃə] *n* вирощування (бактерій); культура; посів; *v* вирощувати, виділяти (про бактерії)
cups [kʌps] *n* банки; *to put/to apply cc.* ставити банки
curable [ˈkjʊərəbl] *a* виліковний
cure [kjʊə] *n* лікування; ліки; засіб; *v* виліковувати *(of)*, відновлювати здоров'я, оздоровлювати
curve [kɜ:v] *n* крива, кривизна, вигин
cut [kʌt] *n* розріз, поріз, рана; *v* порізати(ся), відрізати

Dd

daily [ˈdeili] *adv* щоденно; *a* щоденний
dangerous [ˈdeindʒərəs] *a* небезпечний
data [ˈdeitə] *pl* від *datum* дані
dead [ded] *a* мертвий, неживий
deal [di:l] **(dealt)** *v* мати справу з *(with)*; стосуватися *(with)*; розглядати; *a great (good) d.* багато, значна кількість
death [deθ] *n* смерть
decide [diˈsaid] *v* вирішувати(ся)
decrease [diˈkri:s] *v* зменшувати(ся), понижувати(ся); [ˈdi:kri:s] *n* зменшення, зниження
deep [di:p] *a* глибокий; низький (звук); густий (колір)
deficiency [diˈfiʃənsi] *n* нестача, відсутність
define [diˈfain] *v* визначити; встановлювати
definite [ˈdefinit] *a* визначений, певний
degeneration [diˌdʒenəˈreiʃn] *n* переродження
degree [diˈgri:] *n* ступінь, міра; градус; науковий ступінь, звання; *to a certain d.* до певної міри; *by dd.* поступово
delay [diˈlei] *n* сповільнення; затримка; *v* затримувати; зволікати; сповільнювати
delirium [diˈliriəm] *n* маячня, марення
demand [diˈmɑ:nd] *v* вимагати, потребувати; *n* потреба
demonstrate [ˈdemənsreit] *v* доводити, пояснювати; демонструвати
dense [dens] *a* щільний, густий
department [diˈpɑ:tmənt] *n* відділення
depend [diˈpend] *v* залежати *(від – on, upon)*

deposit [di'pɒzit] *n* наліт; осад; *v* відкладати(ся), давати осад
describe [dis'kraib] *v* описувати, зображувати
despite [dis'pait] *prp* незважаючи на
destroy [dis'trɔi] *v* руйнувати, знищувати
detect [di'tekt] *v* виявляти
determine [di'tɜ:min] *v* визначати, встановлювати
develop [di'veləp] *n* розвивати(ся)
development [di'veləpmənt] *n* розвиток; еволюція; зростання; поліпшення
diagnose ['daiəgnəʊz] *v* розпізнавати хворобу, ставити діагноз
diagnosis [ˌdaiəg'nəʊsis] (pl diagnoses) *n* визначення хвороби, діагноз; *to make (establish) a d.* поставити діагноз
diarrhea [ˌdaiə'riə] *n* пронос, діарея
die [dai] *v* вмирати
diet ['daiət] *n* дієта, харчування; *light (strict) d.* легка (сувора) дієта; to *follow (keep to) a d.* дотримуватися дієти; *soft d.* м'яка їжа; *basic d.* основна дієта
difference ['difrəns] *n* різниця, відмінність
different ['difrənt] *a* інший, відмінний; різний
difficulty ['difikəlti] *n* трудність; важкість
diffuse [di'fju:s] *a* розсіяний, дифузний
digestion [dai'dʒestʃən] *n* травлення; завоєння
dilate [dai'leit] *v* розширювати(ся)
dilution [dai'lju:ʃn] *n* розбавлення, розчинення
diminish [di'miniʃ] *v* зменшувати(ся), ослабляти
direct [di'rekt] *a* прямий, безпосередній; *v* спрямовувати; вказувати
discharge [dis'tʃɑ:dʒ] *n* виділення; виписування; *v* виписувати (з лікарні) *(from)*
discomfort [dis'kʌmfət] *n* незручність; нездужання; занепокоєння
discover [dis'kʌvə] *v* відкривати, виявляти
discuss [dis'kʌs] *v* обговорювати; дискутувати
disease [di'zi:z] *n* хвороба
disorder [di'sɔ:də] *n* порушення, пошкодження, розлад
displacement [dis'pleismənt] *n* переміщення, зміщення
distant ['distənt] *a* віддалений, далекий
distinguish [dis'tiŋgwiʃ] *v* розрізняти, відрізняти
distress [dis'tres] *n* нездужання; втома; виснаження; страждання
distribution [ˌdistri'bju:ʃn] *n* поширення, розподіл; розміщення
disturbance [dis'tɜ:bəns] *n* розлад, порушення, пошкодження
divide [di'vaid] *v* ділити(ся), дробити
division [di'viʒn] *n* поділ
dizziness ['dizinis] *n* запаморочення
doctor ['dɒktə] *n* лікар; доктор (вчений ступінь); *attending d., d. in charge* лікар, що лікує; *district d.* дільничний лікар
dosage ['dəʊsidʒ] *v* дозування; доза
dose [dəʊs] *n* доза; *v* дозувати
down [daʊn] *adv* вниз, внизу; *prp* (вниз) по, за; *to be d. with some disease* злягти, захворіти
drainage ['dreinidʒ] *n* осушення, дренаж; дренування (рани)
dress [dres] *v* перев'язувати (рану)
dressing ['dresiŋ] *n* пов'язка, перев'язування; *to put a d. around (on) smth* накласти пов'язку на
drink [driŋk] (drank, drunk) *v* пити
drop [drɒp] *n* крапля; *v* капати, закапати *(into)*; *v* зменшуватися, знижуватися
drug [drʌg] *n* ліки, медикамент
dry [drai] *a* сухий; висушений; *v* сушити, сохнути
duct [dʌkt] *n* протока; канал; прохід; труба
due [dju:] to завдяки; через те, що
dull [dʌl] *a* тупий (звук при простукуванні); притуплений
duration [djʊə'reiʃn] *n* тривалість
duty ['dju:ti] *n* обов'язок; *to be on d.* чергувати; *a doctor on d.* черговий лікар
dye [dai] *n* фарба, барвник
dyspnea [dis'pni:ə] *n* задишка, затруднене дихання

Ee

ear [iə] *n* вухо
early ['ɜ:li] *a* ранній, передчасний; *adv* рано; *e. in (in e.)* на початку; *as e. as* ще, вже
eat [i:t] (ate, eaten) *v* їсти
edema [i'di:mə] *n* набряк; *pitting e.* набряк, який визначається при натисканні пальцем (утворюється ямка)

effect [i'fekt] *n* наслідок, результат; вплив, дія; *aftereffects (of a disease)* ускладнення (наслідки) після хвороби; *side effects* побічні дії
effective [i'fektiv] *a* дійовий, ефективний
effort ['efət] *n* зусилля, напруження; спроба
effusion [i'fju:ʒn] *n* вилив
elbow ['elbəʊ] *n* лікоть
elevate ['eliveit] *v* піднімати(ся); підвищувати (по службі)
eliminate [i'limineit] *v* усувати; видаляти (з організму); знищувати
emergency [i'mɜ:dʒənsi] *n* крайня необхідність, екстрений випадок; *a* негайний, терміновий
emphasize ['emfəsaiz] *v* підкреслювати, звертати увагу
employ [im'plɔi] *v* застосовувати, вживати
employment [im'plɔimənt] *n* застосування, використання; робота, служба
enable [i'neibl] *v* давати змогу, сприяти
end [end] *n* кінець, закінчення; *v* кінчати(ся), припиняти; *e. to e.* щільно, впритул; *at the e.* в кінці
endure [in'djʊə] *v* виносити, витримувати, зносити, терпіти
enema ['enimə] *n* клізма
enlarge [in'lɑ:dʒ] *v* розширювати(ся); збільшувати(ся); розростатися
enter ['entə] *v* входити; вступати; записувати; реєструвати
enteric fever [en'terik'fi:və] *n* черевний тиф
entire [in'taiə] *a* повний, цілий, увесь
entirely [in'taiəli] *ad* цілком, зовсім, повністю
entrance ['entrəns] *n* вхід; вступ
environment [in'vaiərənmənt] *n* оточення; середовище; довкілля
epigastric burning [epi'gæstrik'bɜ:niŋ] *n* печія
error ['erə] *n* помилка; відхилення
eruption [i'rʌpʃn] *n* висип
esophagus [i:'sɒfəgəs] *n* стравохід
especially [is'peʃəli] *adv* особливо
establish [is'tæbliʃ] *v* установлювати, засновувати, створювати
estimate ['estimeit] *v* оцінювати, визначати, підраховувати
ether ['i:θə] *n* ефір
evacuate [i'vekjʊeit] *v* очищати, видаляти, відкачувати, відсмоктувати
evidence ['evidəns] *n* очевидність; підстава; доказ; наукові дані; *v* бути доказом
evident ['evidənt] *a* очевидний, ясний
exact [ig'zækt] *a* точний
examination [ig,zæmi'neiʃn] *n* дослідження; огляд; обстеження; іспит
examine [ig'zæmin] *v* досліджувати, спостерігати; вислуховувати; оглядати (хворого)
except [ik'sept] *for* за винятком, крім
excessive [ik'sesiv] *a* надмірний, численний
excision [ik'siʒn] *n* вирізування, відрізування, видалення
excretion [iks'kri:ʃn] *n* виділення, екскреція
exercise ['eksəsaiz] *n* вправа; тренування; фізична зарядка
exertion [ig'zɜ:ʃn] *n* напруження, зусилля, навантаження; *on e.* при напруженні, при навантаженні
exhalation [,ekshə'leiʃn] *n* видих
exist [ig'zist] *v* існувати
expect [iks'pekt] *v* чекати, сподіватися, припускати
expectoration [eks,pektə'reiʃn] *n* відхаркування, відкашлювання
experience [iks'piəriəns] *n* досвід; випадок; *v* відчувати; почувати; зазнавати
experiment [iks'perimənt] *n* дослід, експеримент
expiration [,ekspi'reiʃn] *n* видихання, видих
explain [iks'plein] *v* пояснювати, тлумачити
exploration [,eksplɔ:'reiʃn] *n* дослідження
exploratory [,iks'plɔ:rətəri] *a* дослідницький; *e. laparotomy* пробна лапаротомія
extend [iks'tend] *v* витягати(ся); розтягувати; розширювати; простягатися; поширювати
extensive [iks'tensiv] *a* обширний, просторий, широкий
extent [iks'tent] *n* ступінь, міра; протяжність; розмір; *to a certain e.* до певної міри; *to a great e.* значною мірою
external [iks'tɜ:nl] *a* зовнішній
extract ['ekstrækt] *n* витяжка, екстракт; [ik'strækt] *v* добувати; витягати
extreme [iks'tri:m] *a* крайній; останній; надзвичайний, надмірний

extremely [iks´tri:mli] *adv* вкрай, надзвичайно, надмірно
extremity [iks´tremiti] *n* кінцівка
eye [ai] *n* око
eyeball [´aibɔ:l] *n* очне яблуко
eyelid [´ailid] *n* повіка

Ff

face [feis] *n* обличчя, лице; вираз обличчя; поверхня; *v* зустрічати, стояти лицем до ч.-н.; *to save one's f.* врятувати репутацію
facility [fə´siliti] *n* легкість; плавність; *pl* засоби; умови
fact [fækt] *n* факт; *the f. is that* справа в тому, що; *in fact* в дійсності, дійсно, по суті, фактично
fail [feil] *v* зазнати невдачі; не вдатися, бути неспроможним
failure [´feiljə] *n* пошкодження, порушення; невдача; недостатність; відсутність; зупинка
feint [feint] *n* непритомність, втрата свідомості; *a* слабкий, млявий, блідий; *v* слабнути, знепритомніти, зомліти
fall [fɔ:l] (fell, fallen) *v* падати; спадати; знижуватися; ставати, робитися; *n* падіння, зниження
family [´fæmili] *n* сім'я, родина; *a f. history* сімейний анамнез
far [fɑ:] *a* далекий, віддалений; *adv* далеко; *by f.* значно; набагато; *in so f. as* оскільки
fast [fɑ:st] *a* стійкий; міцний, твердий; швидкий
fasting [´fɑ:stiŋ] *n* піст, обмеження в їжі, голодування
fat [fæt] *n* жир; *a* жиріний, товстий, гладкий; відгодований
fatigue [fə´ti:g] *n* втома, стомленість
favorable [´feivərəbl] *a* сприятливий, зручний
feature [´fi:ʧə] *n* (характерна) риса, особливість, властивість
febrile [´fi:brail] *a* гарячковий, фібрильний
feed [fi:d] (fed) *v* годувати(ся), харчувати(ся)
feel [fi:l] (felt) *v* почувати, відчувати; сприймати; *to f. fine (rotten)* почувати себе прекрасно (дуже погано)
female [´fi:meil] *n* жінка, дівчина; *a* жіночий
fever [´fi:və] *n* лихоманка, жар; нервове збудження; *to keep the f. down* збити температуру
field [fi:ld] *n* поле; область, сфера, галузь
film [film] *n* знімок, плівка; оболонка, тонкий шар
final [´fainəl] *a* кінцевий, заключний, остаточний
find [faind] (found) *v* знаходити; зустрічати; виявляти *(out)*
finding [´faindiŋ] *n* знахідка, відкриття; *pl* отримані дані, результати; висновки
first aid [´fɜ:st´eid] *n* перша допомога; швидка допомога; *to give (render) f. a.* надавати першу допомогу
fit [fit] *n* напад, приступ; *a* придатний, здоровий, у хорошій формі (про спортсмена); *v* годитися, бути придатним
fix [fiks] *v* встановлювати, укріпляти, фіксувати
fluid[´flu:id] *n* рідина; *a* рідкий
focus [´fəʊkəs] (pl foci [´fəʊsai], focuses [´fəkəsiz]) *n* фокус; центр
follow [´fɒləʊ] *v* іти за кимось; іти слідом; стежити; логічно виходити; *as follows* як нижче зазначено; так; ось як; *it follows* звідси випливає
following [´fɒləʊiŋ] *a* наступний; *prp* слідом, після
follow-up [´fɒləʊʌp] *n* контроль, облік; віддалені результати; *a* подальший; *v* прослідкувати віддалені результати
food [fu:d] *n* їжа, харчування, харчові продукти
foot [fʊt] *n* нога, ступня; підошва
for [fɔ:] *prp* для; внаслідок; через; протягом; *cj* тому що, бо; *f. a while* на деякий час; *f. the sake of* заради ч.-н.
forearm [´fɔ:rɑ:m] *n* передпліччя
forehead [´fɔrid] *n* лоб, чоло
form [fɔ:m] *n* форма, зовнішній вигляд; бланк; обриси; *v* формувати; утворювати
found [faʊnd] *v* засновувати
fracture [´frækʧə] *n* перелом; тріщина; *v* ламати(ся)
free [fr:i] *a* вільний; що не містить, вільний від *(from)*; безкоштовний; безплатний; *to be f. of any symptoms* бути здоровим
frequent [´fri:kwənt] *a* частий; звичайний

function [ˈfʌŋkʃn] *n* дія, функція, призначення; *v* функціонувати, діяти
fundus [ˈfʌndəs] *n* дно (органа); очне дно; дно шлунка (в області входу)

Gg

gall bladder [ˈgɔ:lˌblædə] *n* жовчний міхур
gargle [ˈgɑ:gl] *n* полоскання (для горла); *v* полоскати
gastric [ˈgæstrik] *a* шлунковий; *g. juice* шлунковий сік; *g. washing* промивання шлунка
gauze [gɔ:z] *n* марля
general [ˈʤenərəl] *a* загальний; звичайний; головний; *in g.* взагалі; звичайно; *in g. terms* в загальних рисах
generalized [ˈʤenərəlaizd] *a* загальний, узагальнений
germ [ʤɜ:m] *n* зародок, ембріон; мікроб, бактерія
get [get] **(got)** *v* одержувати; досягати; ставати; *to g. rid of* позбутися; *to g. well again* видужати
giant [ˈʤaiənt] *n* гігантський
giddiness [ˈgidinis] *n* запаморочення
give [giv] **(gave, given)** *v* давати; передавати; поступатись, погоджуватися *(in)*; відмовлятися *(up)*
gland [glænd] *n* залоза; *mammary g.* грудна залоза
go [gəu] **(went, gone)** *v* іти, їхати; продовжувати *(on)*; *to be going + inf* збиратися *(+ inf)*
goiter [ˈgɔitə] *n* зоб
gout [gaut] *n* подагра
gown [gaun] *n* халат
grade [greid] *n* градус; ступінь; сорт; *v* розташовувати за рангом; сортувати; розподіляти за ступенем інтенсивності; відбирати за сортами (категоріями)
gradually [ˈgrædjuəli] *adv* поступово
grave [greiv] *a* важкий, серйозний, небезпечний (про хворобу)
gravity [ˈgræviti] *n* вага; сила тяжіння; *specific g.* питома вага
grippe [grip] *n* грип
grow [grəu] **(grew, grown)** *v* рости; ставати
growth [grəuθ] *n* ріст; новоутворення; (бакт.) культура
gum [gʌm] *n* ясна
gut [gʌt] *n* кишка; травний канал

Hh

hemorrhage [ˈheməriʤ] *n* кровотеча
hair [hɛə] *n* волосина, волосся
half [hɑ:f] (pl halves) половина
hand [hænd] *n* кисть руки; *v* передавати, вручати; *at h.* близько, напохваті; той, що розглядається; *on the one (other) hand* з одного (з другого) боку
hard [hɑ:d] *a* твердий; жорсткий; стійкий
harm [hɑ:m] *n* шкода; *v* шкодити
head [hed] *n* голова
headache [ˈhedeik] *n* головний біль; *a bad (mild, splitting) h.* сильний (слабкий, нестерпний) головний біль
heal [hi:l] *v* заживати, загоюватися, виліковувати, зціляти
healing [ˈhi:liŋ] *n* загоювання, лікування
health [helθ] *n* здоров'я; *h. resort* курорт, оздоровниця; *h. service* медичне обслуговування; *public h.* охорона здоров'я
healthy [ˈhelθi] *a* здоровий, нормальний
hearing [ˈhiəriŋ] *n* слух
heart [hɑ:t] *n* серце; *h. sounds* тони серця; *h. murmur* серцевий шум
heartburn [ˈhɑ:tˌbɜ:n] *n* печія
heat [hi:t] *n* спека; теплота; *v* нагріватися
heavy [ˈhevi] *a* тяжкий, важкий; рясний; великий; багатий
height [hait] *n* висота
help [help] *n* допомога; *v* допомагати
hepatic [hiˈpætik] *a* печінковий
heredity [hiˈrediti] *n* спадковість
hernia [ˈhɜ:njə] *n* грижа
high [hai] *a* високий; *adv* високо; *h. in* із високим вмістом ч.-н.
hip [hip] *n* стегно; бокова поверхня таза й стегна; стегновий суглоб
histologic [ˌhistəˈlɔʤik] *a* гістологічний
history [ˈhistəri] *n* історія, анамнез
hoarse [hɔ:s] *a* хрипкий, охриплий

home [həʊm] *n* дім; *h. care* домашній догляд; *h. treatment* лікування вдома; *rest h.* будинок відпочинку
hospital [ˈhɒspitl] *n* лікарня, госпіталь; *to be in h.* лежати в лікарні
hospitalize [ˈhɒspitəlaiz] *v* покласти в лікарню, госпіталізувати
hot water bottle [ˈhɑtˈwɒtəˈbɒtl] *n* грілка
hour [aʊə] *n* година; *reception hours* години прийому; *visiting hours* години відвідування (хворих)
human [ˈhjʊ:mən] *a* людський; *h. being* людина
hunger [ˈhʌŋgə] *n* голод
hurt [hɜ:t] (hurt) *v* заподіяти шкоду; забити, поранити; завдати болю; боліти; робити боляче
hypertension [ˌhaipəˈtenʃn] *n* високий кров'яний тиск, підвищення кров'яного тиску, гіпертонія
hypotension [ˌhaipəʊˈtenʃn] *n* низький кров'яний тиск, гіпотонія

Ii

idea [aiˈdiə] *n* ідея; поняття, уявлення; думка, гадка
identify [aiˈdentifai] *v* розпізнавати; ототожнювати
ill [il] *a* хворий, слабкий; поганий, шкідливий; *to be i. with* хворіти; *to fall i. with* захворіти
illness [ˈilnis] *n* хвороба, недуга, слабкість
immediate [iˈmi:djət] *a* безпосередній, прямий; спішний, негайний
immobilization [iˌməʊbilaiˈzeiʃn] *n* приведення в стан спокою, імобілізація; накладання шини
immunity [iˈmju:niti] *n* імунітет
impairment [imˈpɛəmənt] *n* погіршення; пошкодження; порушення
imply [imˈplai] *v* мати на увазі; натякати
important [imˈpɔ:tənt] *a* важливий, значний
impossible [imˈpɒsəbl] *a* неможливий
improve [imˈpru:v] *v* покращувати
improvement [imˈpru:vmənt] *n* покращення, поліпшення
incidence [ˈinsidəns] *n* випадок; кількість випадків; частота захворювань
incision [inˈsiʒn] *n* розріз, надріз
include [inˈklu:d] *v* включати; містити в собі
increase [inˈkri:s] *v* збільшувати(ся), посилюватися; підвищувати(ся), зростати; **[ˈinkri:s]** *n* зростання; збільшення
independent [ˌindiˈpendənt] *a* незалежний, самостійний
indicate [ˈindikeit] *v* вказувати, показувати; означати; позначати; потребувати; приписувати
indication [ˌindiˈkeiʃn] *n* показання (для лікування); вказівка; симптом; знак
indigestion [ˌindiˈdʒestʃn] *n* нетравлення шлунка; розлад травлення
individual [ˌindiˈvidjʊəl] *n* особа, людина; індивід
infant [ˈinfənt] *n* немовля; дитина до 2-ох років
infarction [inˈfɑ:kʃn] *n* інфаркт
infect [inˈfekt] *v* заражати
infectious [inˈfekʃəs] *a* заразний; інфекційний
infiltration [ˌinfilˈtreiʃn] *n* просочування, інфільтрація; інфільтрат
inflammation [ˌinfləˈmeiʃn] *n* запалення
influence [ˈinflʊəns] *n* вплив, дія, *v* впливати
influenza [ˌinflʊˈenzə] *n* грип
information [ˌinfəˈmeiʃn] *n* інформація, дані
infusion [inˈfju:ʒn] *n* внутрішньовенне вливання; настій
inherited [inˈheritid] *a* успадкований, *i. disease* спадкова хвороба
initial [iˈniʃəl] *a* початковий, первісний, попередній
inject [inˈdʒekt] *v* вводити рідину; впорскувати, робити ін'єкцію
injection [inˈdʒekʃn] *n* впорскування, введення, ін'єкція
injure [ˈindʒə] *v* пошкодити, поранити
injury [ˈindʒəri] *n* рана; забите місце; поранення; пошкодження
inner [ˈinə] *a* внутрішній
in-patient [inˈpeiʃnt] *n* стаціонарний хворий
insect [ˈinsəkt] *n* комаха
insert [inˈsɜ:t] *v* вводити
inspiration [ˌinspiˈreiʃn] *n* вдихання, вдих
instance [ˈinstəns] *n* приклад; випадок; *for i.* наприклад; *in the first i.* по-перше, насамперед

instant ['instənt] *a* невідкладний, негайний; розчинний
institute ['institju:t] *v* встановлювати, засновувати; *n* установа, заклад
institution [ˌinsti'tju:ʃn] *n* установа
insufficiency [ˌinsə'fiʃənsi] *n* недостатність
intact [in'tækt] *a* незайманий, непошкоджений, цілий
intake ['inteik] *n* поглинання, споживання; всмоктування
intend [in'tend] *v* мати намір, збиратися (щось робити); мати на увазі; призначати(ся)
intense [in'tens] *a* сильний, напружений, інтенсивний
intensify [in'tensifai] *v* посилювати(ся)
intensity [in'tensiti] *n* напруженість, інтенсивність; сила, енергія; яскравість
intercostal space [ˌintə'kɒstl'speis] *n* міжреберний простір
interest ['intrist] *n* інтерес; *v* цікавити; *to be interested in* цікавитися; *to be of i.* бути цікавим
intermittent [ˌintə'mitənt] *a* переривчастий; уривчастий; переміжний
internal [in'tɜ:nl] *a* внутрішній
interrupt [ˌintə'rʌpt] *v* переривати; перешкоджати; заважати
intervention [ˌintɜ:'venʃn] *n* втручання
intestinal [in'testinəl] *a* кишковий
intestine [in'testin] *n* (звич. pl) кишки, кишечник; *large i.* товста кишка; *small i.* тонка кишка
intolerable [in'tɒrələbl] *a* нестерпний, непереносний
intoxication [in'tɒksi'keiʃn] *n* отруєння, інтоксикація
intramuscular [ˌintrə'mʌskjʊlə] *a* внутрішньом'язовий
introduce [ˌintrə'dju:s] *v* вводити; представляти (когось)
invade [in'veid] *v* вторгатися, вдиратися; уражати (про хворобу)
invasion [in'veiʒn] *n* вторгнення (паразита); початок хвороби; приступ хвороби
investigate [in'vestigeit] *v* досліджувати
investigation [in,vesti'geiʃn] *n* дослідження
involve [in'vɑlv] *v* втягувати; включати (*in*); викликати; уражати (про хворобу)
involvement [in'vɑlvmənt] *n* ураження, залучення у патологічний процес
irritation [ˌiri'teiʃn] *n* подразнення, свербіж; збудження
isolate ['aisəleit] *v* виділяти речовину із суміші; ізолювати, відокремлювати
itch [iʧ] *n* сверблячка; короста; *v* свербіти
item ['aitəm] *n* пункт; питання; предмет; стаття

Jj

jaundice ['ʤɔ:ndis] *n* жовтяниця, розлиття жовчі
jaw [ʤɔ:] щелепа
join [ʤɔin] *v* з'єднувати(ся); приєднувати(ся)
joint [ʤɔint] *n* суглоб; стик; з'єднання; точка сполучення
juice [ʤu:s] *n* сік
juvenile ['ʤu:vinail] *a* юнацький; *n* юнак, підліток

Kk

keep [ki:p] **(kept)** *v* тримати(ся); зберігати(ся); дотримуватися ч.-н.; *(to) k. a record* вести запис; *in keeping with* відповідно до
kidney ['kidni] *n* нирка
kind [kaind] *n* різновид, клас; характерна особливість; *a* добрий
knee [ni:] *n* коліно
known [nəʊn] *a* відомий
knowledge ['nɒliʤ] *n* знання; *to own k.* наскільки нам відомо

Ll

laboratory [lə'bɒrətəri] *n* лабораторія
laceration [ˌlæsə'reiʃn] *n* розрив; рвана рана
lack [læk] *n* недостатність; відсутність; *v* відчувати нестачу, не мати; бракувати
lancet ['lɑ:nsit] *n* ланцет
laparotomy [ˌlæpə'rɒtəmi] *n* лапаротомія, розтин черевної порожнини
large [lɑ:ʤ] *a* великий, крупний; *at l.* у всьому об'ємі; цілком; у загальному сенсі; неконкретно; *half as l.* удвічі менше; *twice as l.* удвічі більше
largely ['lɑ:ʤli] *adv* значною мірою
laryngeal [lə'rinʤiəl] *a* гортанний
larynx ['læriŋks] *n* гортань

last [lɑ:st] *v* тривати; *a* останній; минулий; *l. but one* передостанній; *lastly* нарешті (при переліку)
late [leit] *a* пізній, запізнілий; недавній, останній; *of l.* останнім часом
lay [lei] (laid) *v* класти; покласти; *to be laid up with some disease* хворіти
layer [ˈleiə] *n* шар, пласт; *to close a wound in ll.* закрити (зашити) рану шарами
learn [lɜ:n] (learnt або **learned)** *v* вчитися, дізнаватися
least [li:st] *a* (найвищий ступінь від *little*) найменший; *at l.* принаймні
leave [li:v] (left) *v* покидати, залишати
left [left] *a* лівий; *to the l.* ліворуч; *on the l.* зліва
leg [leg] *n* нога (від коліна до ступні)
length [leŋθ] *n* довжина; відстань; тривалість
lesion [ˈli:ʒn] *n* пошкодження, ураження, рана
leukocyte [ˈlju:kəsait] *n* біле кров'яне тільце, лейкоцит
level [ˈlevl] *n* рівень, ступінь
lie [lai] (lay, lain) *v* лежати; лягати (*down*)
life [laif] (pl lives [ˈlaivz]) *n* життя; *l. span (time)* тривалість життя
light [lait] *n* світло; освітлення; *a* світлий, легкий; *to throw some l. on* пролити світло на що-небудь
like [laik] *a* схожий, подібний; *prp* подібно до; *v* подобатися, любити; *and the l.* тощо; *should (would) l. + inf* хотілося б + інф.
likely [ˈlaikli] *adv* мабуть, певно; *a* ймовірний
limb [lim] *n* кінцівка
limit [ˈlimit] *n* межа, рубіж; *within normal ll.* в межах норми
line [lain] *n* лінія; риска, штрих; *v* вистеляти, обкладати; *in l. with* відповідно до
lining [ˈlainiŋ] *n* покрив; *mucous l.* слизистий покрив
lip [lip] *n* губа
list [list] *n* список, перелік; *v* заносити до списку; складати список
listen [ˈlisn] *v* слухати, вислуховувати; *to l. to smb's heart, lungs* прослухати серце, легені
little [ˈlitl] *a малий;* маленький; *adv* мало; *l. more than* трохи більше, ніж; *a l.* небагато; *as l. as* тільки, до
live [liv] *v* жити; **[laiv]** *a* живий
liver [ˈlivə] *n* печінка
living [ˈliviŋ] *a* живий; *to be l. and well* бути живим і здоровим
lobe [ləʊb] *n* частка; *l. of the ear* мочка вуха
local [ˈləʊkəl] *a* місцевий
localize [ˈləʊkəlaiz] *v* локалізувати; визначати місцезнаходження
locate [ləʊˈkeit] *v* розміщувати; оселяти(ся); визначати місцезнаходження
long [lɒŋ] *a* довгий; *adv.*давно; *l. before* задовго до (того як); *any (no) longer* більше не; *as l. as* поки; оскільки; *before l.* скоро, незабаром; *in the long run* кінець кінцем
longevity [lɒnˈʤeviti] *n* довговічність; довголіття
look [lʊk] *v* дивитися на *(at)*; придивлятися за, піклуватися про *(after)*; шукати *(for)*
loop [lu:p] *n* петля
lose [lu:z] (lost) *v* втрачати, губити
loss [lɒs] *n* втрата
loud [laʊd] *a* голосний, гучний, звучний
low [ləʊ] *a* низький; слабкий
lower [ˈləʊə] *a* нижчий, нижній; знижувати(ся), зменшувати(ся)
lumbar [ˈlʌmbə] *a* поперековий
lumen [ˈlju:mən] *n* люмен, просвіт трубчастого органа, артерії, вени
lung [lʌŋ] *n* легеня
lymphocyte [ˈlimfəsait] *n* лімфоцит

Mm

main [mein] *a* головний, основний; *in the m.* в основному, головним чином, переважно
maintain [menˈtein] *v* підтримувати; утримувати; зберігати; стверджувати
major [ˈmeiʤə] *a* головний, основний; більший; важливий
majority [məˈʤɒriti] *n* більшість
make [meik] (made) *v* робити, виготовляти (*up*); *to m. provision for* передбачати, забезпечувати, вживати заходів
malaise [mæˈleiz] *n* нездужання, нездоров'я
male [meil] *n* чоловік; *a* чоловічий
malignant [məˈlignənt] *a* злоякісний
manifest [ˈmænifest] *v* виявляти; *a* явний, очевидний

manifestation [ˌmænifesˈteiʃn] *n* виявлення, прояв
manner [ˈmænə] *n* спосіб, метод; *in such a m.* таким чином; *in a m.* до певної міри
manual [ˈmænjʊəl] *a* ручний; *n* довідник; посібник
margin [ˈmɑ:dʒin] *n* край
marked [mɑ:kt] *a* помітний, виразний
massive [ˈmæsiv] *a* масивний; важкий, солідний
matter [ˈmætə] *n* речовина, матерія; гній; предмет; справа; *v* мати значення; *as a m. of experience* виходячи з досвіду; *as a m. of fact* фактично, насправді; *no m.* дарма, байдуже
meal [mi:l] *n* їжа
mean [mi:n] **(meant)** *v* значити, означати; мати на увазі; *n* середина; спосіб, засіб; *by mm. of* за допомогою; *by all mm.* будь-яким способом; за всяку ціну; звичайно, будь ласка; *by no mm.* ні в якому разі; аж ніяк
measles [ˈmi:zlz] *n* кір
measure [ˈmeʒə] *n* міра; критерій; *v* вимірювати; *preventive mm.* профілактичні заходи
measurement [ˈmeʒəmənt] *n* вимірювання, вимір
mediastinum [ˌmi:diæsˈtainəm] *n* середостіння
medical [ˈmedikəl] *a* медичний; лікарський; *m. center* медпункт; *m. check-up* медичний огляд; *m. history* історія хвороби, анамнез; *m. treatment* медикаментозне лікування; лікування консервативними методами
medication [ˌmediˈkeiʃn] *n* лікування
medicine [ˈmedisin] *n* медицина; ліки
membrane [ˈmembrein] *n* перетинка; оболонка; мембрана; плівка
mental [ˈmentl] *a* розумовий, психічний
mention [ˈmenʃn] *v* згадувати; посилатися на; *not to m.* не кажучи (вже) про те
metabolism [meˈtæbəlizm] *n* обмін речовин, метаболізм
metastasis [miˈtæstəsis] *n* метастаз
method [ˈmeθəd] *n* метод, спосіб
microscopic [ˌmaikrəsˈkɒpik] *a* мікроскопічний
middle [ˈmidl] *a* середній; *n* середина
mild [maild] *a* м'який, ніжний; слабкий; не гострий (про їжу); млявий (про людину)
milk [milk] *n* молоко
mind [maind] *n* розум; пам'ять; думка; *to bear (have, keep) in m.* пам'ятати, враховувати, мати на увазі; *to make up one's m.* зважитися, вирішити; *to my m.* по-моєму, на мою думку
minor [ˈmainə] *n* менший; другорядний
minority [maiˈnɒriti] *n* меншість
mix [miks] *v* змішувати(ся); примішувати; домішувати
mixture [ˈmikstʃə] *n* суміш; мікстура; змішування
moan [ˈməʊn] *v* стогнати; *n* стогін
mobility [məʊˈbiliti] *n* рухливість; мобільність
mode [məʊd] *n* метод, спосіб; вид, форма
moderate [ˈmɒdərit] *a* помірний; невеликий (про кількість, силу)
modify [ˈmɒdifai] *v* (видо)змінювати; пом'якшувати
moist [mɔist] *a* вологий, вогкий
mortality [mɔ:ˈtæliti] *n* смертність; смертельність; летальність; *m. rate* процент смертності
mouse [maʊs] (pl mice) *n* миша
mouth [maʊθ] *n* рот
movement [ˈmu:vmənt] n рух; переміщення
multiple [ˈmʌltipl] *a* численний; багаторазовий; складний; складений
mumps [mʌmps] *n* свинка, паротит
muscle [ˈmʌsl] *n* м'яз
muscular [ˈmʌskjʊlə] *a* м'язовий, мускульний
mustard leaf (paper, plaster) [ˈmʌstəd] *n* гірчичник
myocardial infarction [ˌmaiəʊˈkɑ:diəl inˈfɑ:kʃn] *n* інфаркт міокарду

Nn

nail [neil] *n* ніготь; цвях; *v* вводити металевий стержень (цвях) при переломі кістки, штифтувати
name [neim] *n* ім'я; прізвище
namely [ˈneimli] *adv* а саме, тобто
narrow [ˈnærəʊ] *a* вузький; тісний; обмежений; *v* звужувати; зменшувати; обмежувати

nasal [ˈneizəl] *a* носовий
natural [ˈnætʃrəl] *a* природній, натуральний; справжній; нормальний
nature [ˈneitʃə] *n* природа; характер
nausea [ˈnɔ:siə] *n* нудота
nearly [ˈniəli] *adv* майже, приблизно
neck [nek] *n* шия
necropsy [ˈnekrɒpsi] *n* розтин трупа
necrosis [neˈkrəusis] *n* некроз, омертвіння
needle [ˈni:dl] *n* голка
negative [ˈnegətiv] *a* негативний; безрезультатний
nerve [nɜ:v] *n* нерв
nervous [ˈnɜ:vəs] *a* нервовий; неспокійний
newborn [ˈnju:bɔ:n] *n* новонароджений
nocturnal [nɒkˈtɜ:nəl] *a* нічний
node [nəud] *n* вузол; наріст, потовщення
normal [ˈnɔ:məl] *a* нормальний; звичайний; стандартний
nose [nəuz] *n* ніс; *to have a running n.* мати сильний нежить; *my n. is running* у мене сильний нежить
note [nəut] *v* зазначати; помічати, звернути увагу на; робити помітки; *n* запис, замітка
nothing [ˈnʌθiŋ] *pron* ніщо, нічого; *n. but* нічого крім, тільки; *n. else than* ніщо інше, як; *to have n. to do with* не мати нічого спільного з
notice [ˈnəutis] *v* помічати; *n* повідомлення; *to take n. of* звертати увагу на що-н.
nourish [ˈnʌriʃ] *v* живити; годувати
number [ˈnʌmbə] *n* число; кількість; номер; *a n. of* ряд (деяка кількість)
numbness [ˈnʌmnəs] *n* заціпеніння, нечутливість
numerous [ˈnju:mərəs] *a* численний
nurse [nɜ:s] *n* медична сестра; *v* доглядати хворого
nutrition [njuˈtriʃn] *n* харчування, живлення, годування; їжа

Oo

obese [əuˈbi:s] *a* гладкий, товстий, огрядний
object [ˈɒbdʒikt] *n* мета; предмет; об'єкт
obscure [əbˈskjuə] *a* темний; неясний; прихований
observation [ˌɒbzəˈveiʃn] *n* спостереження
observe [əbˈzɜ:v] *v* спостерігати, помічати; дотримуватися
obstruction [əbˈstrʌkʃn] *n* закупорка; перешкода
obtain [əbˈtein] *v* одержувати; існувати; досягати
occasional [əˈkeiʒnəl] *a* періодичний; випадковий
occasionally [əˈkeiʒnəli] *adv* іноді
occlusion [ɒˈklu:ʒn] *n* закупорка; закриття; сорбція, поглинання, вбирання (газів)
occur [əˈkɜ:] *v* траплятися, відбуватися
odor [ˈəudə] *n* запах
offer [ˈɒfə] *v* пропонувати; давати
ointment [ˈɒintmənt] *n* мазь
onset [ˈɒnsət] *n* початок; напад
opening [ˈəupniŋ] *n* отвір; щілина; прохід
operate [ˈɒpəreit] *v* оперувати; діяти; приводити в рух; *to o. on smb for smth* оперувати к.-н. з приводу ч.-н.
operating table *n* операційний стіл
operating room *n* операційна (кімната)
operation [ˌɒpəˈreiʃn] *n* операція; *to perform an o.* робити (зробити) операцію
operative [ˈɒpərətiv] *a* операційний; дійсний; чинний; *o. complication* ускладнення після операції; *o. death* смерть внаслідок операції; *o. field* операційне поле; *o. mortality* смертність внаслідок операції
oral [ˈɔ:rəl] *a* ротовий
orally [ˈɔ:rəli] *adv* для внутрішнього вживання
order [ˈɔ:də] *n* порядок; послідовність; *v* призначати; приписувати; замовляти (ліки); *in o. to* для того, щоб
organ [ˈɔ:gən] *n* орган; частина тіла
origin [ˈɒridʒin] *n* походження; джерело; початок (нерва); місце прикріплення м'яза
originate [əˈridʒineit] *v* породжувати; давати початок; походити
outbreak [ˈautbreik] *n* вибух; спалах; поява (епідемії)
outcome [ˈautkʌm] *n* результат, кінець; *fatal o.* смертельний кінець
outer [ˈautə] *a* зовнішній
out-patient [ˈaut ˌpeiʃənt] *n* амбулаторний хворий; *o. department* амбулаторія
oxygen [ˈɒksidʒən] *n* кисень

Pp

pad [pæd] *n* компрес, тампон; *p. of cotton wool* ватний тампон; *gauze p.* марлевий тампон
pain [pein] *n* біль
painful [ˈpeinful] *a* болючий, болісний; важкий, тяжкий
painless [ˈpeinlis] *a* безболісний
paint [peint] *v* змащувати; фарбувати
palate [ˈpælit] *n* піднебіння; *soft p.* м'яке піднебіння; *hard p.* тверде піднебіння
pale [peil] *a* блідий
palpable [ˈpælpəbl] *n* відчутний на дотик; помітний, очевидний
palpate [ˈpelpeit] *v* обмацувати, пальпувати
pancreas [ˈpæŋkriəs] *n* підшлункова залоза
paper [ˈpeipə] *n* папір; стаття; документ
paralysis [pəˈrælisis] (pl paralyses **[pəˈrælisiz]**) параліч
parent [ˈpɛərənt] *n* батько; мати; тварина (рослина), від якої пішли інші
part [pɑ:t] *n* частина; участь; роль; *in p.* частково; *on the p. of* зі сторони к.-н.; *to take p.* брати участь
partial [ˈpɑ:ʃəl] *a* частковий; неповний
particular [pəˈtikjʊlə] *a* особливий; окремий; частковий; певний
passage [ˈpæsidʒ] *n* прохід, протока; *air p.* дихальний шлях
past [pɑ:st] *prp* за; після; повз; *a* минулий; *in the p.* в минулому
path [pæθ] *n* доріжка; шлях; траєкторія
pathologic(al) [ˌpæθəˈlɒdʒik(əl)] *a* патологічний
patient [ˈpeiʃənt] *n* хворий, пацієнт; *a* терплячий; *p.'s card* картка хворого
peculiar [piˈkju:ljə] *a* особливий; специфічний, своєрідний; властивий *(to)*
pelvis [ˈpelvis] (pl pelves **[ˈpelvi:z]**) *n* таз; ниркова миска
penetrate [ˈpenitreit] *v* проникати всередину; проходити крізь; просочувати
per [pɜ:] *prp* в, на, за; *p. minute* за хвилину
percentage [pəˈsentidʒ] *n* процентне відношення, процент, відсоток
percussion [pɜ:ˈkʌʃn] *n* вистукування, перкусія; *at (on) p.* при вистукуванні (перкусії)
perforate [ˈpɜ:fəreit] *v* пробивати
perforation [ˌpɜ: fəˈreiʃn] *n* прорив, перфорація
perform [pəˈfɔ:m] *v* виконувати, здійснювати
pericardial [ˌperiˈkɑ:diəl] *a* що відноситься до перикарду, перикардіальний
pericardial sac *n* навколосерцева сумка
peripheral [pəˈrifərəl] *a* окружний, периферійний
peritoneum [ˌperitəʊˈni:əm] *n* очеревина
permit [pəˈmit] *v* дозволяти, давати дозвіл; допускати *(of)*
persist [pəˈsist] *v* наполягати *(in)*; залишатися; продовжувати існувати
persistent [pəˈsistənt] *a* стійкий; постійний; наполегливий
person [ˈpɜ:sn] *n* особа; людина
pharmacology [ˌfɑ:məˈkɒlədʒi] *n* фармакологія
pharynx [ˈfæriŋks] *n* глотка
phenomenon [fiˈnɒminən] (pl phenomena **[fiˈnɒminə]**) *n* явище, феномен; симптом
physical [ˈfizikəl] *a* фізичний, тілесний
physician [ˈfiziʃn] *n* лікар
physiologic(al) [ˌfiziəˈlɒdʒik(əl)] *a* фізіологічний
physiology [ˌfiziˈɒlədʒi] *n* фізіологія
picture [ˈpiktʃə] *n* картина; формула (крові); малюнок, зображення
plaster of Paris [ˈplɑ:stərəvˈpæris] *n* гіпс; *p. of P. bandage* гіпсова пов'язка
platelet [ˈpleitlit] кров'яна пластинка, тромбоцит
plenty [ˈplenti] *n* сила; безліч; *p. of* багато
pleura [ˈplʊərə] *n* плевра
pneumonia [njʊˈməʊnjə] *n* запалення легенів, пневмонія; *lobar p.* крупозне запалення легенів
point [pɔint] *n* точка; місце; кінчик; вістря; *v* вказувати, показувати; звертати (чиюсь) увагу *(out)*; *p. of view* точка зору
poisoning [ˈpɔizəniŋ] *n* стан отруєння, інтоксикація; застосування отрути; отруєння
poor [pʊə] *a* бідний; убогий; мізерний; виснажений
population [ˌpopjʊˈleiʃn] *n* населення, жителі
portion [ˈpɔ:ʃn] *n* частина; частка; порція
position [pəˈziʃn] *n* положення (хворого під час обстеження, операції); місце; *erect p.*

пряме, вертикальне положення; *recumbent, supine p.* лежачи горілиць
positive [ˈpɒzitiv] *a* позитивний
possess [pəˈzes] *n* володіти, мати
possible [ˈpɒsəbl] *a* можливий
posterior [pɒˈstiəriə] *a* задній; наступний
postmortem [ˌpəʊstˈmɔ:təm] *n* розтин трупа; *a* посмертний
postoperative [ˌpəʊstˈəʊpərətiv] *v* післяопераційний
powder [ˈpaʊdə] *n* порошок; пудра
precise [priˈsais] *a* точний; чіткий
predominantly [priˈdɒminəntli] *adv* переважно
prefer [priˈfə] *v* віддавати перевагу
preparation [ˌprepəˈreiʃn] *n* препарат, приготування; підготовка
prescribe [prisˈkraib] *v* прописувати (ліки, лікування); приписувати
prescription [prisˈkripʃn] *n* рецепт, припис (лікаря); *write out a p. to* виписати рецепт; *to have a p. made (to order a p.)* замовляти ліки; *p. department* рецептурний відділ
present [ˈprezns] *n* наявність; присутність; *in the p. of* у присутності
present [priˈzent] *v* представляти; [ˈpreznt] *a* присутній; сучасний; наявний; даний; *at p.* у даний час; *to be p.* бути присутнім, бути в наявності
preserve [priˈzɜ:v] *v* берегти; охороняти; консервувати
pressure [ˈpreʃə] *n* тиск; *to take smb's blood p.* вимірювати кров'яний тиск
prevent [priˈvent] *v* запобігати, відвертати, перешкоджати
previous [ˈpri:vjəs] *a* попередній
primary [ˈpraiməri] *a* первинний, первісний, головний, що має першочергове значення; основний
principal [ˈprinsipəl] *a* головний, основний
prior [ˈpraiə] *a* попередній; *adv* раніше *(to)*
procedure [prəˈsi:ʤə] *n* процедура, методика; хід аналізу (дослідження); методика проведення (аналізу, дослідження)
proceed [prəˈsi:d] *v* продовжувати(ся); відбуватися; розвиватися; виходити *(from)*; приступати, перейти до чогось *(to, with)*
produce [prəˈdju:s] *v* викликати, бути причиною; виробляти, створювати; продукувати
profound [prəˈfaʊnd] *a* глибокий
profuse [prəˈfju:s] *a* рясний; багатий; щедрий
progressive [prəgˈresiv] *a* поступовий; поступальний; прогресивний
prolonged [prəˈlɒŋd] *a* тривалий; що надто затягнувся; продовжений
prominent [ˈprɒminənt] *a* опуклий, рельєфний; визначний; видатний
proper [ˈprɒpə] *a* належний, відповідний; правильний; властивий; притаманний
protect [prəˈtekt] *v* захищати, запобігати
prove [pru:v] *v* виявляти(ся); випробовувати; доводити; засвідчувати
provide [prəˈvaid] *v* забезпечувати; постачати; передбачати *(for)*
provided [prəˈvaidid] *cj* за умови що; якщо тільки
publish [ˈpʌblish] *v* видавати; опублікувати
pulmonary [ˈpʌlmənəri] *a* легеневий
pulse [pʌls] *n* пульс; биття; *p. rate* частота пульсу; *to feel smb's p.* прощупувати пульс
pupil [ˈpju:pl] *n* зіниця
purpose [ˈpɜ:pəs] *n* намір; призначення; мета
purulent [ˈpjʊərʊlənt] *a* гнійний; що гноїться
pus [pʌs] *n* гній

Qq

quality [ˈkwɒliti] *n* якість
quantity [ˈkwɒntiti] *n* кількість; величина
question [ˈkwestʃn] *n* питання; проблема; *v* досліджувати; питати; запитувати; ставити під сумнів; *it is out of q.* безсумнівно
questionable [ˈkwestʃənəbl] *a* сумнівний

Rr

rabbit [ˈræbit] *n* кролик
radiate [ˈreidieit] *v* випромінювати (світло, тепло); розходитися з центра подібно до радіусів
radiation [ˌreidiˈeiʃn] *n* випромінювання, радіація; опромінення; лікування радіоактивними речовинами

raise [reiz] *v* піднімати, підвищувати; вирощувати
rale [rɑ:l] *n* хрип
range [reinʤ] *n* ряд; клас; ступінь; радіус дії; *v* коливатися в певних межах; вимірювати; доходити до *(up)*; *over (within) the r.* в межах; *within a r. from ... to* в межах від ... до; *a wide r. of* широке коло
rapid [ˈræpid] *a* швидкий
rare [rɛə] *a* рідкий; рідкісний
rash [ræʃ] *n* висип
rate [reit] частота; швидкість; норма; ступінь
ray [rei] *n* промінь
reach [ri:ʧ] *v* досягати; доходити; протягувати
reaction [riˈækʃn] *n* реакція; взаємодія
readily [ˈredili] *adv* легко; швидко
readings [ˈri:diŋz] *n* показники (приладу, шкали); *to take rr. of instruments* знімати показники (вимірювальних) приладів
realize [ˈriəlaiz] *v* здійснювати; усвідомлювати; розуміти
reason [ˈri:zn] *n* причина; підстава; аргумент
receive [riˈsi:v] *v* приймати; одержувати
reception [riˈsepʃn] *n* прийом; одержання; *r. office* реєстратура; *r. room (ward)* приймальня
recognize [ˈrekəgnaiz] *v* пізнавати, визнавати
record [ˈrekəd] *n* запис; звіт; протокол, дані; *v* записувати; реєструвати; *as a matter of r.* на основі отриманих даних
recover [riˈkʌvə] *v* одужувати
recovery [riˈkʌvəri] *n* одужання; відновлення; пробудження (після наркозу); *to make a good (uneventful) r.* видужувати без ускладнень
recur [riˈkɜ:] *v* повторювати(ся), знову траплятися; рецидивувати
recurrence [riˈkʌrəns] *n* повернення, повторення; рецидив
reduce [riˈdju:s] *v* знижувати; зменшувати; вправляти (кістку)
refer [riˈfɜ:] *v* посилатися на *(to)*; направляти, посилати до *(to)*; згадувати; стосуватися
reference [ˈrefrəns] *n* посилання, довідка; *in (with) r. to* стосовно, що стосується; посилаючись на; *without r. to* безвідносно до; незалежно від
reflect [riˈflekt] *v* відображати; думати; роздумувати
regard [riˈgɑ:d] *v* вважати; розглядати; стосуватися, мати відношення; *as regards* що стосується, стосовно; *(in) with r. to* відносно; *without r. for* не враховуючи; *to have r. to* враховувати, звертати увагу
regarding [riˈgɑ:diŋ] *prp* що стосується, відносно, щодо
region [ˈri:ʤn] *n* область; частина тіла; порожнина
regular [ˈregjʊlə] *a* правильний, регулярний
regurgitation [ri,gɜ:ʤiˈteiʃn] *n* відригування; зворотній тік крові (при недостатності клапанів серця і судин)
relation [riˈleiʃn] *n* відношення; залежність; зв'язок; *in r. to* відносно, що стосується
relative [ˈrelətiv] *a* відносний; порівняльний; відповідний; *n* родич; *r. to* відносно; у зв'язку з
relief [riˈli:f] *n* полегшення; допомога; заспокоєння (болю)
remain [riˈmein] *v* залишатися
remedy [ˈremidi] *n* лікувальний засіб, ліки
remote [riˈməʊt] *a* віддалений
removal [riˈmu:vəl] *n* усунення; відкачування (ексудату); випускання (рідини)
remove [riˈmu:v] *v* усувати; пересувати; переміщувати
renal [ˈri:nəl] *a* нирковий
repair [riˈpɛə] *n* заживання; відновлення; *v* виправляти; виліковувати, гоїтись (про рану)
replace [riˈpleis] *v* заміняти, заміщувати
report [riˈpɔ:t] *v* повідомляти, розповідати, описувати; *n* звіт, повідомлення, доповідь
represent [ˌriprɪˈzənt] *v* представляти, зображати
require [riˈkwaiə] *v* вимагати; потребувати
reseach [riˈsɜ:ʧ] *n* дослідження, дослідницька робота
resection [riˈsekʃn] *n* вирізування, видалення, резекція
resistance [riˈzistəns] *n* опір, протидія; стійкість (проти б.-я. лікарської речовини)
respiration [respəˈreiʃn] *n* дихання

respiratory [ris'paiərətri], ['respərə,tɔ:ri] *a* дихальний; *r. arrest (failure)* зупинка дихання; *r. tract* дихальні шляхи
respond [ris'pɒnd] *v* відповідати; реагувати (to)
response [ris'pɒns] *n* відповідь, реакція
rest [rest] *n* відпочинок, спокій, сон; *v* відпочивати, спочивати; *the r. of* залишок, решта; *at r.* на спочинку
restore [ris'tɔ:] *v* відновлювати (здоров'я)
result [ri'zʌlt] *n* результат; наслідок; підсумок; *v* випливати, виникати *(from)*; мати результатом, закінчувати(ся) (чимсь) *(in)*; *as a r. of* у результаті; *with the r. that* у результаті чого
retain [ri'tein] *v* утримувати, зберігати, стримувати
retention [ri'tenʃn] *n* затримка, затримання; стримування; збереження
return [ri'tɜ:n] *n* повернення; *v* повертати
reveal [ri'vi:l] *v* показувати; виявляти; викривати
rheumatic [rʊ'mætik] *a* ревматичний
rib [rib] *n* ребро
rise [raiz] (rose, risen) *v* підніматися, підвищуватися, збільшуватися; виходити на поверхню; *to give r. to* викликати, призводити до
roentgen ['rentgən] рентген
round ['raʊnd] *n* обхід (хворих лікарем); *to make one's daily r.* робити щоденний обхід
routine [ru:'ti:n] *a* звичайний; шаблонний; поточний
rub [rʌb] *v* терти(ся); масажувати, втирати *(in)*
rupture ['rʌpʧə] *n* розрив; *v* прориватися

Ss

safe [seif] *a* безпечний; надійний
salt [sɔ:lt] *n* сіль; кухонна сіль; *v* солити
sample ['sæmpl] *n* зразок; проба; *v* брати пробу
satisfactory [,sætis'fæktəri] *a* задовільний, достатній
save [seiv] *v* рятувати
scale [skeil] *n* шкала
scalp [skælp] *n* скальп; шкіра черепа; *v* скальпувати
scalpel ['skælpəl] *n* скальпель
scar [skɑ:] *n* рубець; *v* зарубцьовуватися
scarlet fever [,skɑ:lit'fi:və] *n* скарлатина
scheme [ski:m] *n* схема, план
science ['saiəns] *n* наука
scientific [,saiən'tifik] *a* науковий
scrub [skrʌb] *v* терти, шкребти, чистити щіткою
search [sɜ:ʧ] *v* досліджувати; зондувати; проникати; шукати
secondary ['sekəndəri] *a* другорядний; побічний; *s. dressing* накладання повторної пов'язки; *s. adhesion* загоювання повторним натягуванням
section ['sekʃn] *n* розтин; розріз; зріз
sedative ['sedətiv] *a* заспокійливий; *n* заспокійливий засіб
sediment ['sedimənt] *n* осад, відстій, відкладення
sedimentation rate [,sedimən'teiʃn'reit] *n* швидкість осідання еритроцитів
see [si:] (saw, seen) *v* бачити; *to s. a patient* приймати хворого
seem ['si:m] *v* здаватися; *s.* + *inf.* очевидно
seizure ['si:ʒə] *n* напад
select [si'lekt] *v* вибирати, відбирати, добирати
sense [sens] *n* почуття; відчуття; pl свідомість; сенс, значення; *in a s.* в певному значенні
sensitive ['sensitiv] *a* чутливий; сприйнятливий *(to)*
separate ['sepəreit] *v* відділяти; розділяти; виділяти; **['seprət]** *a* окремий, відокремлений
series ['siəri:z] (pl без змін) *n* серія, низка; *in s.* послідовно
serious ['siəriəs] *a* серйозний, важливий, небезпечний; що викликає побоювання
serum ['siərəm] *n* сироватка; сироватка крові
serve [sɜ:v] *v* служити; бути корисним; годитися
service ['sɜ:vis] *n* служба; обслуговування; *medical s.* медичне обслуговування, медична допомога
set [set] (set) *v* ставити, установлювати; *to s. a bone* вправити кістку (при вивихові чи переломі)
severe [si'viə] *a* тяжкий; серйозний; *s. headache* нестерпний головний біль

severity [si'veriti] *n* гострота (болю); важкість (хвороби)
sew [səʊ] (sewn або sewed) *v* шити, зшивати, зашивати *(up)*
sex [seks] *n* стать
shadow ['ʃædəʊ] *n* тінь
shape [ʃeip] *n* форма; обрис; *v* формувати, надавати форми
sharp [ʃɑ:p] *a* гострий; різкий (про біль); гострий (про зір); тонкий (про слух)
shiver ['ʃivə] *v* дрижати, тремтіти; *to sh. with fever* морозити, трусити (через гарячку)
shortness of breath ['ʃɔ:tnisəv'breθ] *n* задишка
shoulder ['ʃəʊldə] *n* плече, плечовий суглоб
shoulder blade ['ʃəʊldəbleid] *n* лопатка
sick [sik] *a* хворий; що почуває нудоту; *to be (feel) s.* нудити (відчувати нудоту); *s. leave* лікарняний листок; *to be on a s. leave* бути на лікарняному; *to put smb on a s. leave* виписати (видати) лікарняний
sickness ['siknis] *n* хвороба; нудота
side [said] *n* сторона, бік
sight [sait] *n* зір; погляд; поле зору
sign [sain] *n* ознака, симптом
significant [sig'nifikənt] *a* важливий, істотний, значний
similar ['similə] *a* подібний, схожий; однорідний
simple ['simpl] *a* простий; елементарний
single ['siŋgl] *a* один; єдиний; поодинокий; окремий
site [sait] *n* місце; місцезнаходження, місце розташування, місцеперебування
size [saiz] *n* розмір; величина
skin [skin] *n* шкіра
skull [skʌl] *n* череп
sleep [sli:p] (slept) *v* спати; *n* сон
sleepiness ['sli:pinis] *n* сонливість
sleeplessness ['sli:pləsnəs] *n* безсоння
slight [slait] *a* незначний, легкий; слабкий
smallpox ['smɔ:lpɒks] *n* віспа
smear [smiə] *n* мазок; пляма
smell [smel] *n* нюх; запах; *v* нюхати; пахнути
smooth [smu:ð] *a* гладенький, рівний; спокійний
soft [sɒft] *a* м'який; нестійкий; вологий, дощовий
solid ['sɒlid] *a* твердий; міцний; щільний; суцільний
solution [sə'lu:ʃn] *n* розчин; розчинення; *saline s.* фізіологічний розчин
sore [sɔ:] *a* хворий; запалений; *n* виразка; рана
sound [saʊnd] *n* звук; тон; шум; зонд; *v* зондувати; досліджувати рану; *a* здоровий, неушкоджений; *v* вистукувати, вислуховувати (стетоскопом)
space [speis] *n* простір, проміжок; відстань; віддаль; область; порожнина; *the s. of time* проміжок часу
specimen ['spesimin] *n* зразок; препарат
spinal column [ˌspainl'kɒləm] *n* хребетний стовп
spinal cord [ˌspainl'kɔ:d] *n* спинний мозок
spine [spain] *n* хребет, хребетний стовп; шип
spite [spait] *n* злість; *in s. of* незважаючи на
spleen [spli:n] *n* селезінка
splint [splint] *n* шина
spontaneous [spɒn'teinjəs] *a* мимовільний; спонтанний
spread [spred] (spread) *v* розповсюджувати(ся); поширювати(ся); *n* розповсюдження, поширення
sputum ['spju:təm] *n* мокротиння
stage [steidʒ] *n* етап; момент (операції); стадія; період; ступінь
stain [stein] *v* фарбувати; *n* пляма, фарба
state [steit] *n* положення, стан
stay [stei] *v* залишатися; перебувати
sterile ['sterail] *a* стерильний, стерилізований
stiff [stif] *a* тугий; міцний; негнучкий; закостенілий; жорсткий; *s. neck* заніміла (ригідна) шия
stitch [stiʧ] *n* шов; стібок; *to put a s. in* накласти шов; *to take out the ss.* зняти шви
stomach ['stʌmək] *n* шлунок
stool [stu:l] *n* випорожнення; очищення кишок; кал, фекалії; *loose s.* рідкі випорожнення
strain [strein] *n* напруження, зусилля; штам (культури)
stress [stres] *n* тиск, натиск; напруження, зусилля; *v* підкреслювати
stretcher ['streʧə] *n* ноші
strict [strikt] *a* суворий; точний; певний
striking ['straikiŋ] *a* вражаючий
structure ['strʌkʧə] *n* будова; структура

study ['stʌdi] *n* вивчення, дослідження; обстеження; *v* вивчати, досліджувати; *under s.* який вивчають

subject ['sʌbdʒikt] *n* суб'єкт, людина; предмет; тема; *a* що підлягає *(to)*; *adv* за умови *(to)*; *s. to* у відповідності до, в залежності від; *to be s. to* підлягати; бути схильним до чогось

subsequent ['sʌbsikwənt] *a* наступний; подальший

subside [səb'said] *v* падати; стихати; вщухати; осідати

substance ['sʌbstəns] *n* речовина; матерія; суть

successful [sək'sesful] *a* успішний; вдалий

suffer ['sʌfə] *v* страждати *(from)*; хворіти; терпіти; відчувати (біль) *(i m.n.)*; переносити (захворювання)

sufficient [se'fiʃənt] *a* достатній

sugar ['ʃugə] *n* цукор; *elevated s. level* підвищена кількість цукру (у крові)

suggest [sə'dʒest] *v* наводити на думку; підказувати; пропонувати, припускати

suggestive [sə'dʒestiv] *a* що наводить на думку; що стосується навіювання

superficial [ˌsju:pə'fiʃəl] *a* поверхневий; зовнішній; неглибокий

superior [sju'piəriə] *a* верхній, вищий

supply [sə'plai] *v* подавати, постачати; *n* подача; живлення; постачання; запас

suppuration [ˌsʌpju'reiʃn] *n* нагноєння, нагнивання; гній

suppurative ['sʌpjurətiv] *a* гнійний

surface ['sɜ:fis] *n* поверхня

surgeon ['sɜ:dʒn] *n* хірург

surgery ['sɜ:dʒəri] *n* хірургія; приймальня; операція

surgical ['sɜ:dʒikl] *a* хірургічний

survival [sə'vaivl] *n* виживання

survive [sə'vaiv] *v* пережи(ва)ти; вижити; продовжувати існування

suspect [səs'pekt] *v* підозрювати; припускати

suture ['sju:ʧə] *n* шов; місце з'єднання; накладання шва; нитки для зшивання рани; *v* зашивати; накладати шов; зашивати (рану)

swallow ['swɒləu] *v* ковтати; *pain on swallowing* біль при ковтанні

sweat [swet] *n* піт; *v* пітніти; *to be damp with s.* вкритися потом

swell [swel] **(swelled, swollen)** *v* набрякати, пухнути, надувати(ся)

swelling ['seliŋ] *n* розбухання; пухлина; набряк

symptom ['simptəm] *n* ознака, симптом

syringe ['sirinʤ] *n* шприц

systemic [sis'temik] *a* систематичний; системний; що стосується всього організму; соматичний; *s. circulation* велике коло кровообігу

Tt

table ['teibl] *n* таблиця; *t. of contents* заголовок; *timet.* розклад

tablespoonful ['teibl,spu:nful] *n* столова ложка; *to take a t. of medicine* прийняти столову ложку ліків

tablet ['tæblit] *n* таблетка

technique [tek'ni:k] *n* метод; спосіб; техніка

temperature ['tempriʧə] *n* температура; *to take smb's t.* вимірювати температуру к.-н.; *to be running a t.* мати підвищену температуру

temporary ['tempərəri] *a* сучасний

tender ['tendə] *a* слабкий (про здоров'я); хворобливий; ніжний; чутливий

tenderness ['tendənis] *n* хворобливість, слабке здоров'я; чутливість до болю

tendon ['tendən] *n* сухожилля

tension ['tenʃn] *n* напруга; розтягнення; тиск; пружність; напруженість

term [tɜ:m] *n* строк; семестр; термін

test [test] *n* проба, випробування; тест; реакція; аналіз; *v* випробовувати; *t. tube* пробірка

therapeutic [ˌθerə'pju:tik] *a* лікувальний, терапевтичний; *t. exercise* лікувальна гімнастика

therapeutist [ˌθerə'pju:tist] *n* терапевт

therapy ['θerəpi] *n* терапія, лікування; *physiot.* фізіотерапія

thermometer [θe'mɒmitə] *n* термометр; *to keep a t. in one's armpit* тримати термометр під пахвою

thick [θik] *a* товстий; жирний; густий; каламутний

thickness [ˈθiknis] *a* товщина; щільність; каламутність
thigh [θai] *n* стегно; стегнова кістка
thin [θin] *n* худий; тонкий; рідкий (про волосся); рідкий; слабкий; розбавлений, розведений
thing [θiŋ] *n* річ, предмет; *among other tt.* між іншим; *for one t.* по-перше; передусім; *the t. is* річ у тім, що
thirst [θɜ:st] *n* спрага
thorough [ˈθʌrə] *a* ґрунтовний; повний; старанний
thrill [θril] *n* нервове тремтіння; тремтіння грудної стінки при ваді серця; глибоке хвилювання
thoat [θrəʊt] *n* гортань, горло, глотка, зів; *I have a sore t.* у мене болить горло
thrombosis [θrɒmˈbəʊsis] *n* тромбоз
throughout [θru:ˈaʊt] *adv* всюди; *prp* через, по всьому
thyroid [ˈθairɔid] *n* щитовидна залоза
tight [tait] *a* щільний; тугий; туго зав'язаний (вузол, пов'язка)
time [taim] *n* час; *at a t.* одночасно, зразу; *for the first t.* вперше; *in no t.* надзвичайно швидко; *two (three) times* два (три) рази; *in t.* вчасно
tincture [ˈtiŋkʧə] *n* настій; присмак
tip [tip] *n* кінчик; тонкий кінець
tiredness [ˈtaiədnis] *n* втома
tissue [ˈtisju:] *n* тканина; *connective t.* з'єднувальна тканина
toe [təʊ] *n* палець ноги
tongue [tʌŋ] *n* язик; *coated t.* наліт на язиці
tonic [ˈtɒnik] *n* зміцнювальний (тонізуючий) засіб
tonsil [ˈtɒnsl] *n* мигдалеподібна залоза, мигдалик
tooth [tu:θ] (pl teeth [ti:θ]) *n* зуб; *toothache* зубний біль
total [ˈtəʊtl] *a* весь, цілий; повний, абсолютний
touch [tʌʧ] *v* торкатися; n дотик
tourniquet [ˈtʊənikei] *n* джгут
toxicity [tɒkˈsisiti] *n* отруйність, токсичність
tracing [ˈtreisiŋ] *n* простежування; запис
trachea [treˈki:ə] *n* трахея
tract [trækt] *n* тракт; *alimentary t.* травний тракт; *gastrointestinal t.* шлунково-кишковий тракт
traction [ˈtrækʃn] *n* витягування; м'язова тяга; *to lie under t.* лежати на витяжці (кісток)
transfer [trænsˈfɜ:] *v* переносити; переміщати
transfusion [trænsˈfju:ʒn] *n* переливання (крові)
transmit [trænzˈmit] *v* передавати, переносити
transport [trænsˈpɔ:t] *v* переносити, перевозити, переміщувати
trauma [ˈtrɔ:mə] *n* пошкодження, рана, травма
treat [tri:t] *v* лікувати; обробляти; *t. smb. for smth with smth* лікувати когось чим-небудь з приводу ч.-н.
treatment [ˈtri:tmənt] *n* лікування, терапія; обробка; *to follow t.* дотримуватися лікування
trouble [ˈtrʌbl] *n* пошкодження; розлад; хвороба
trunk [trʌŋk] *n* стовбур (нерва, кровоносної чи лімфатичної судини); тулуб
tube [tju:b] *n* трубка; пробірка; тюбик
tuberculous [tjʊˈbɜ:kjʊləs] *a* туберкульозний; *t. cavity* каверна
tumor [ˈtju:mə] *n* новоутворення; пухлина
turbid [ˈtɜ:bid] *a* мутний, каламутний; неясний
turn [tɜ:n] *v* вертіти; повертати; *n* поворот; черга; *t. into* перетворювати на щось; переробляти
twice [twais] *adv* двічі; удвічі
twins [twinz] *n* близнюки
type [taip] *n* тип; типовий зразок; *v* друкувати
typhoid fever [ˈtaifɔidˈfi:və] *n* черевний тиф
typhus [ˈtaifəs] *n* висипний тиф
typical [ˈtipikəl] *a* типовий *(of)*

Uu

ulcer [ˈʌlsə] *n* виразка
ulceration [ˌʌlsəˈreiʃn] *n* утворення виразки; виразка
uncomplicated [ʌnˈkɒmpliˌkeitid] *a* неускладнений
unconscious [ʌnˈkɒnʃəs] *a* що втратив свідомість, непритомний

undergo [ˌʌndəˈgəʊ] *v* зазнавати, переносити; *u. a course of treatment* пройти курс лікування; *u. a medical examination* пройти медогляд; *u. an operation for smth* перенести операцію з приводу чогось
undernourished [ˌʌndəˈnʌrɪʃt] *a* пониженого живлення
undertake [ˌʌndəˈteik] *v* починати, братися
unfavorable [ʌnˈfeivərəbl] *a* несприятливий
unfortunately [ʌnˈfɔ:ʧənitli] *adv* на жаль
uniform [ˈju:nifɔ:m] *a* одноманітний; однорідний; *n* уніформа
unilateral [ˌju:niˈlætərəl] *a* однобічний, односторонній
union [ˈju:niən] *n* об'єднання; спілка; єдність
unknown [ʌnˈnəʊn] *a* невідомий, незнайомий
unpleasant [ʌnˈpleznt] *a* неприємний
untoward [ˌʌntəˈwɔ:d] *a* невдалий, несприятливий
upper [ˈʌpə] *a* верхній, вищий
uptake [ˈʌpteik] *n* засвоєння; поглинання
urea [ˈjuəriə] *n* сечовина; *u. test* реакція на сечовину
urgent [ˈɜ:ʤənt] *a* терміновий; дуже необхідний
urinalysis [ˌjuəriˈnælisis] *n* аналіз сечі
urine [ˈjuərin] *n* сеча
use [ju:s] *n* вживання, застосування; призначення; [ju:z] *v* вживати, застосовувати, користуватися; *for internal (external) u.* для внутрішнього (зовнішнього) вживання
usual [ˈju:ʒuəl] *a* звичайний
utilize [ˈju:tilaiz] *v* використовувати; застосовувати

Vv

vaccinate [ˈvæksineit] *v* робити щеплення, вакцинувати
vaccination [ˌvæksiˈneiʃn] *n* щеплення; вакцинація, застосування вакцини
vague [veig] *a* невизначений, неясний
valuable [ˈvæljuəbl] *a* цінний, коштовний
value [ˈvælju:] *n* значення; величина; цінність
valve [ˈvælv] *n* клапан
variety [vəˈraiəti] *n* вид, різновид(ність); різноманітність
various [ˈvɛəriəs] *a* різний, різноманітний
vary [ˈvɛəri] *v* міняти(ся), змінювати(ся); різнити(ся)
vascular [ˈvæskjʊlə] *a* судинний
vein [vein] *a* вена; жила
ventricle [ˈventrikl] *n* шлуночок
vertebra [ˈvɜ:tibrə] (pl vertebrae [ˈvɜ:tibri:]) *n* хребець
vertebral [ˈvɜ:tibrəl] *a* хребетний; *v. body* тіло хребця
vertigo [ˈvɜ:tigəʊ] (pl vertigoes [ˈvɜ:tigəʊz]) *n* запаморочення
vessel [ˈvesl] *n* судина; *v. wall* стінка судини
victim [ˈviktim] *n* жертва, потерпілий
view [vju:] *n* вид; перспектива; точка зору; *from our point of v.* на наш погляд
viscera [ˈvisərə] *n* (sing viscus) внутрішні органи, нутрощі
visible [ˈvizəbl] *a* видимий
vision [ˈviʒn] *n* зір; *blurred v.* затуманений зір, «пелена перед очима»
visual [ˈviʒjʊəl] *n* той, що сприймається зором; зоровий; візуальний; *v. field* поле зору
vital [ˈvaitl] *a* життєвий; життєздатний
vitamin [ˈvaitəmin] *n* вітамін
voice [vɔis] *n* голос
volume [ˈvɔlju:m] *n* об'єм; величина; маса; ємність; місткість
vomit [ˈvɔmit] *v* блювати
vomiting [ˈvɔmitiŋ] *n* блювота

Ww

waist [weist] *n* талія; *to strip to the w.* роздягнутися до пояса
walk [wɔ:k] *v* ходити
wall [wɔ:l] *n* стіна, стінка
ward [wɔ:d] *n* палата (лікарняна)
warm [wɔ:m] *n* зігрівання; *a* теплий, зігрітий; *v (up)* гріти, зігрівати
wash [wɒʃ] *v* промивати, мити
washing (off) [ˈwɒʃiŋˌɒf] *n* змивання; відполіскування; відмивання
watch [wɒʧ] *v* спостерігати, стежити
water [ˈwɔ:tə] *n* вода; *v* поливати
wave [weiv] *n* хвиля; коливання; зубець електрокардіограми

way [wei] *n* шлях; спосіб; засіб; *w. out* вихід (із положення); *in no w.* ні в якому разі, ніяк
weak [wi:k] *a* слабкий, кволий
weakness [ˈwi:knis] *n* слабкість, кволість
weigh [wei] *v* зважувати; обмірковувати; важити, мати вагу
weight [weit] *n* вага; *to gain w.* повнішати, набирати вагу; *to lose w.* худнути, втрачати вагу
well [wel] *adv* добре, як слід; *as w.* крім того; *as w. as* так само, як; *to be (feel) w. again* одужувати; *to be unw.* почувати себе погано, хворіти
well-nourished [ˌwelˈnʌriʃt] *a* доброго харчування
while [wail] *cj* доки; у той час, як; незважаючи на те, що; тоді як; *after a w.* скоро, через деякий час; *for a w.* на деякий час; *once in a w.* час від часу, рідко, інколи
whole [həʊl] *a* цілий, весь; *on the w.* у цілому
whooping cough [ˈhu:piŋˈkɔ:f] *n* коклюш
wide [waid] *a* широкий; просторий
widespread [ˈwaidspred] *a* дуже поширений
width [widθ] *n* ширина, широта; *in w.* в ширину
work [wɜ:k] *n* робота, справа; *v* працювати, займатися ч.-н.; *to w. out* розробити, опрацьовувати
wound [wu:nd] *n* рана, поранення
wrong [rɒŋ] *a* неправильний, помилковий

Xx

X-ray [ˌeksˈrei] *n* (звич. pl) рентгенівське проміння; рентгенівський знімок; *v* просвічувати рентгенівським промінням; *X-r. examination* рентгенологічне дослідження; *X-r. findings* дані рентгенологічного дослідження

Yy

yield [ji:ld] *v* родити, давати плоди (врожай, прибуток); *n* вихід (продукції); виробіток

Zz

zero [ˈziərəʊ] *n* нуль; нульова точка; *above (below) zero* вище (нижче) нуля

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Підручник призначений для вивчення англійської мови за професійним спрямуванням для студентів вищих навчальних закладів I–III рівнів акредитації зі спеціальностей "Сестринська справа", "Лікувальна справа", "Акушерська справа", "Медико-профілактична справа", "Лабораторна діагностика", "Фармація", "Стоматологія ортопедична".

Підручник складається з трьох частин, що включають низку занять, передбачених навчальними програмами. У кожному занятті пропонується певна ситуація, у якій може опинитись медпрацівник у процесі практичної діяльності: спілкування з пацієнтами, лікарями, медперсоналом; обстеження хворих і догляд за ними; ознайомлення з медичним обладнанням тощо. Крім тематичних текстів та граматичних вправ у підручнику подано завдання для самостійної позааудиторної роботи студентів, тестові завдання для рубіжного та тематичного контролю знань, граматичний довідник та медичний словник-мінімум. Для спеціальності "Акушерська справа" окремо розроблено заняття з тем акушерсько-гінекологічного спрямування.

У підручнику використано сучасні оригінальні тексти з англійських та американських видань, підібрано найрізноманітніші види вправ, діалоги, рольові ситуації. У додатках є список неправильних дієслів, модальних дієслів та їх еквівалентів; поурочні словники спеціального курсу складаються з тематичної лексики з латинсько-грецько-українськими еквівалентами. Професійна спрямованість збірника допоможе викладачам та студентам впевнено вживати медичну термінологію.

Над підготовкою матеріалів також працювали викладачі В.В. Гундяк, В.В. Заливанський, І.В. Подчос, О.О. Стрижалова.

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