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**ENGLISH  
FOR DENTAL SPECIALISTS**

Poltava  
2012

УДК 811.111(075.8)

Затверджено на засіданні Центральної комісії ВДНЗУ «Українська медична стоматологічна академія», протокол №3 від 15 листопада 2012р.

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Демченко Н.М., Романко І.Г. “English for dental specialists”. – Poltava, 2012. – 118 p.

## ПЕРЕДМОВА

Навчальний посібник розраховано на студентів стоматологічного факультету при вивченні англійської мови у вищих медичних навчальних закладах III-IV рівнів акредитації.

Посібник побудовано відповідно до вимог навчальної програми.

Тексти супроводжуються системою тренувальних вправ на вироблення та закріплення навичок мовлення, наводяться діалоги.

У граматичному довіднику наведено основні відомості про граматичний матеріал у вигляді таблиць, який треба опанувати студентам.

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### ABC

<b>A</b>	[e]	<b>N</b>	[en]
<b>B</b>	[bi:]	<b>O</b>	[ou]
<b>C</b>	[si:]	<b>P</b>	[p]
<b>D</b>	[di:]	<b>Q</b>	[kjH]
<b>E</b>	[j]	<b>R</b>	[R]
<b>F</b>	[ef]	<b>S</b>	[es]
<b>G</b>	[G]	<b>T</b>	[t]
<b>H</b>	[eIC]	<b>U</b>	[jH]
<b>I</b>	[a]	<b>V</b>	[v]
<b>J</b>	[Ge]	<b>W</b>	[dAbljH]
<b>K</b>	[ke]	<b>X</b>	[eks]
<b>L</b>	[el]	<b>Y</b>	[wa]
<b>M</b>	[em]	<b>Z</b>	[zed]

### VOCABULARY

<p><b>relative</b> ['relətɪv] родич</p> <p><b>skilled</b> [skɪld] кваліфікований</p> <p><b>kind</b> [kaɪnd] добрий</p> <p><b>consist of</b> [kən'sɪst] складатися з</p> <p><b>make notes</b> (abstracts) [nəʊts] конспектувати</p> <p><b>be over</b> ['oʊvə] закінчувати(ся)</p> <p><b>rather</b> ['rɪðə] досить, дещо</p> <p><b>subject</b> ['sʌbdʒɪkt] предмет</p> <p><b>additional</b> [ə'dɪʃənəl] додатковий</p> <p><b>spare/free</b> ['spɛə] вільний</p> <p><b>pass</b> [pɑːs] проходити; здавати</p> <p><b>competition</b> [kəm'pɪtɪʃən] конкурс, змагання</p> <p><b>remedy</b> ['remɪdi] ліки</p> <p><b>heart</b> [hɑːt] серце</p>	<p><b>care</b> ( for, of, about ) [keə] турбуватися</p> <p><b>medicine</b> ['medsɪn] медицина</p> <p><b>hostel</b> ['hɒstəl] студентський гуртожиток</p> <p><b>parents</b> ['pɛərənts] батьки</p> <p><b>therapist (therapist)</b> ['θerə'pɪjətɪst] терапевт</p> <p><b>awful</b> [ˈɔːfʊl] страшний, жахливий</p> <p><b>class</b> [klaːs] заняття, урок</p> <p><b>Chemistry</b> ['kemɪstri] хімія</p> <p><b>Biology</b> [baɪ'ɒlədʒɪ] біологія</p> <p><b>consider</b> [kən'sɪdə] вважати</p> <p><b>knowledge</b> ['nɒlɪdʒ] знання</p> <p><b>disease</b> [dɪ'ziːz] захворювання</p> <p><b>health</b> [helθ] здоров'я</p> <p><b>deep</b> [diːp] глибокий</p> <p><b>particular</b> [pɑː'tɪkjʊlə] окремих; специфічний</p>
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### PHONETICS

**Ex.1. Practice the spelling of the following sounds:**

[b], [p], [g], [k], [t], [ʔ], [s], [D], [z], [S], [C], [f], [v], [w], [d], [G], [h], [l], [m], [n], [N], [Z], [r].

**Ex.2. Read the following words:**

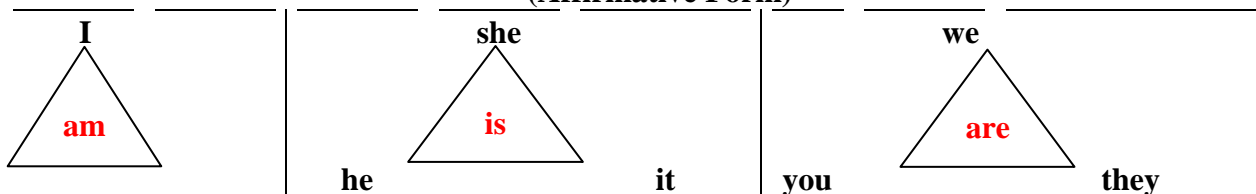
<p>[b]: be, born, boy, by</p> <p>[p]: parent, person, put, up</p> <p>[d]: doctor, do, hard, deep</p> <p>[g]: go, get, against</p> <p>[k]: kind, killer, take</p> <p>[t]: tall, teacher, pet</p> <p>[ʔ]: thanks, both, teeth</p> <p>[s]: study, sister, breakfast</p> <p>[D]: this, there, them</p> <p>[z]: zink</p> <p>[S]: short, she, brush</p>	<p>[f]: father, French, family</p> <p>[v]: very, voice, five</p> <p>[w]: well, with, will</p> <p>[G]: gentle, German,</p> <p>[h]: hospital, hostel, has, he</p> <p>[l]: lady, long, lot, love</p> <p>[m]: medicine, my, moment, must</p> <p>[n]: name, morning, Anatomy</p> <p>[N]: song, long, English</p> <p>[Z]: usual, pleasure</p> <p>[r]: read, relative, parent</p>
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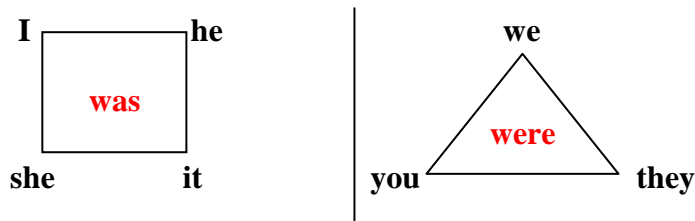
**GRAMMAR:**

**Ex.3. Familiarize yourself with the data of the following tables:**

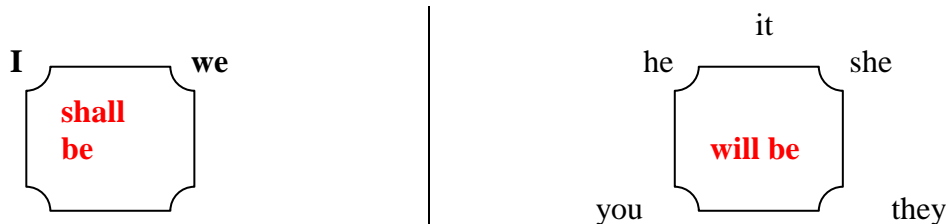
**TO BE  
(Active Voice)  
PRESENT SIMPLE TENSE  
(Affirmative Form)**



**PAST SIMPLE TENSE**



**FUTURE SIMPLE TENSE**



**Ex.4. Read and translate the following sentences. Determine the subject, the predicate, and the tense of each sentence:**

**MODEL:**

They are from Spain. "They" is a subject, "are" is a predicate, Present Simple Tense.

1. He is a teacher in Italy. 2. Mike is nineteen. 3. They are not doctors. 4. Her son was an accountant. 5. She is my daughter. 6. They are friends. 7. We were students. 8. He will be a therapist.

**Ex.5. Insert the missing verbs and translate the sentences into Ukrainian:**

1. He \_ nine years old. 2. She \_ sixteen years old. 3. My friends \_ doctors. 4. My father \_ a dentist. 5. My brother's name \_ Nick. 6. I \_ in the classroom. 7. We \_ at the lecture. 8. Yesterday he \_ in Egypt. 9. Some years ago my father \_ a lawyer. 10. My friends \_ at home last month. 11. He \_ a therapist in 2023. 12. These students \_ in the hospital next week.

**Ex.6. Put the verbs into Past and Future Simple Tenses.**

1. My family is neither big nor small. 2. My friends are in the hospital. 3. We are businessmen. 4. I am in a lecture hall. 5. Daniel is a policeman. 6. Patrick is twenty-eight.

**Ex.7. Translate the following sentences into English:**

1. Він – мій друг. 2. Їй 16 років. 3. Вони – мої батьки. 4. Ганна знаходиться в цьому залі. 5. Він буде хорошим стоматологом. 6. Моя донька була студенткою кілька років тому.

**Ex.8. Familiarize yourself with the data of the following table:**

**TO BE**  
(Interrogative Form)

	Present	Past	Future
<b>Am</b> I?  <b>Is</b> { he? she? it?  you? <b>Are</b> { we? they?	<b>Was</b> { I? he? she? it?  you? <b>Were</b> { we? they?	<b>Shall</b> I <b>Will</b> { he she it you they <b>Shall</b> we }	} <b>be?</b>

**Ex.9. Read and translate the following questions:**

1. Is he a medical student? 2. Are they busy? 3. Were you at home some days ago? 4. Will the students be at home at 6 o'clock? 5. Where are you from? 6. What is your mother's name? 7. Where is Mike? 8. How old are you? 9. How old was your father five years ago? 10. What is his job? 11. What is your address?

**Ex.10. Ask the questions supplying the missing verbs:**

1. What \_ your name (surname)? 2. How old \_ you? 3. What \_ your occupation? 4. What year student \_ you? 5. \_ you Ukrainian? 6. Where \_ you from? 7. \_ your family large (small)? 8. What \_ your father's occupation? 9. How old \_ your father? 10. What kind of person \_ your father? 11. \_ he busy (skilled, respectable)?

**Ex.11. Turn the following sentences into interrogative:**

**A. (General Questions)**

1. Mike is a medical student. 2. They were in the cinema yesterday. 3. He was in Paris last month. 4. She is twenty years old. 5. This dictionary is old.

**B. (Special Questions)**

1. My fellow-student is twenty (How old). 2. They are at the Academy (Where). 3. Simon will be a doctor in six years (When). 4. They were at the party last night (Where). 5. My mother is very young (Who).

**Ex.12. Translate the following sentences into English.**

1. Чи ваша родина велика? – Так. 2. Чи ваш батько робітник? – Ні, мій батько інженер. Він працює на заводі. 3. Чи Ви лікар? – Ні. 4. Ти студент чи учень? – Я – студент. 5. Чи Ви студент першого курсу? – Так. 6. Чи Ви одружений? – Я неодружений. 7. Чи ваш батько службовець? – Ні, мій батько робітник. 8. Чи Ви українець? – Так.

**Ex.13. Familiarize yourself with the data of the following table:**

**TO BE**  
(Negative Form)

	Present	Past	Future
I <b>am not</b> He } She } <b>is not</b>	I } He } She } <b>was not</b>	I <b>shall not be</b> He } She }	}

It You We They	} are not	It You We They	} were not	It You They We	will not be
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**Ex.14. Turn the sentences of the 4<sup>th</sup> exercise into negative form.**

**Ex.15. Familiarize yourself with the data of the following table:**

**TO HAVE**  
(Affirmative Form, Active Voice)  
**PRESENT SIMPLE TENSE**

<table style="border: 1px solid black; width: 100%; height: 100%; margin: auto;"> <tr> <td style="padding: 5px;">I</td> <td style="padding: 5px; text-align: center; color: red; font-weight: bold;">have</td> <td style="padding: 5px;">we</td> </tr> <tr> <td style="padding: 5px;">you</td> <td style="padding: 5px;"></td> <td style="padding: 5px;">they</td> </tr> </table>	I	have	we	you		they	<table style="border: 1px solid black; width: 100%; height: 100%; margin: auto;"> <tr> <td style="padding: 5px;">he</td> <td style="padding: 5px; text-align: center; color: red; font-weight: bold;">has</td> <td style="padding: 5px;">she</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;">it</td> </tr> </table>	he	has	she			it
I	have	we											
you		they											
he	has	she											
		it											

**PAST SIMPLE TENSE**

I	had	he
she		it
we		they
you		

**FUTURE SIMPLE TENSE**

<table style="border: 1px solid black; width: 100%; height: 100%; margin: auto;"> <tr> <td style="padding: 5px;">I</td> <td style="padding: 5px; text-align: center; color: red; font-weight: bold;">shall have</td> <td style="padding: 5px;">we</td> </tr> </table>	I	shall have	we	<table style="border: 1px solid black; width: 100%; height: 100%; margin: auto;"> <tr> <td style="padding: 5px;">he</td> <td style="padding: 5px; text-align: center; color: red; font-weight: bold;">will have</td> <td style="padding: 5px;">she</td> </tr> <tr> <td style="padding: 5px;">you</td> <td style="padding: 5px;"></td> <td style="padding: 5px;">we</td> </tr> <tr> <td style="padding: 5px;">it</td> <td style="padding: 5px;"></td> <td style="padding: 5px;">they</td> </tr> </table>	he	will have	she	you		we	it		they
I	shall have	we											
he	will have	she											
you		we											
it		they											

**Ex.16. Read and translate the following sentences:**

1. This country has a small population. 2. She has got a CD player. 3. We had a computer. 4. My fellow-student will have many subjects. 5. They have practical classes in Biology, Anatomy, and Physics. 6. These students had some lectures last week.

**NOTE:**

"**Have got**" means the same as "**have**" to talk about possession. "Have got" is often used in spoken English.

**Ex.17. Insert the missing verbs and translate the sentences into Ukrainian:**

1. He \_ a Walkman. 2. This country \_ a warm climate. 3. My friends \_ a nice party last Sunday. 4. My father \_ a mobile phone when he was forty. 5. They \_ a lot of problems next week.

**Ex.18. Translate the following sentences into English:**

1. У Петра і Ганни двоє дітей. 2. У мене є хороший план. 3. У нього було багато друзів. 4. У моїй книжці буде чотири розділи. 5. У нього буде важкий день. 6. У нас багато вільного часу.

**Ex.19. Familiarize yourself with the data of the following table:**

**PRONOUN**

<b>Personal Pronouns</b> (Особисті займенники)		<b>Possessive Pronouns</b> (Присвійні займенники)	
Nominative (Subjective) Case	Objective Case	Conjoint Form (with noun)	Absolute Form (without noun)
хто? що?	кого? чого? кому? чому?	чий? чия? чіє? чії?	
I	me	my	mine
he	him	his	his
she	her	her	hers
it	it	its	its
you	you	your	yours
we	us	our	ours
they	them	their	theirs

**MODEL:**

I read her an interesting book.  
He reads an interesting book to her.  
It is your book.  
This book is yours.

**Ex.20. Fill in the blanks with personal pronouns:**

1. \_ am a first-year student at the Polytechnic Institute. 2. My family is not very large, \_ consists of 3 persons. 3. My mother is a doctor. \_ works in the hospital. 4. My father is an operator of the electronic computers. \_ works at the plant. 5. My friends study at the University. \_ are in their third year. 6. Have \_ got any relatives? 7. My aunt has two sons. \_ are twins.

**Ex.21. Put personal pronouns in brackets in the objective case:**

1. My friend sends (I) a lot of messages. 2. His brother knows (she) well. 3. I often see (they) in the park. 4. Don't ask (he) about his wife. 5. Do you know Italian? – No, I don't know (it) at all. 6. Sometimes we meet (she) at the Browns. 7. Our mother greets (we) every morning. 8. Your son studies together with (she), doesn't he?

**Ex.22. Insert possessive pronouns:**

1. We have \_ English classes twice a week. 2. She likes \_ new dress very much. 3. Paul keeps \_ books in the book-case. 4. I usually go to see \_ friends in the evening. 5. They often take \_ children to this park. 6. Do you help \_ parents? 7. The film is very interesting but I don't remember \_ title. 8. Mary is an accountant. She does \_ work well. 9. Mr. Wilson is in \_ office now. 10. Peter and Ann teach \_ children music.

**Ex.23. Use the absolute form of possessive pronouns instead of the conjoint in the following word-combinations according to the model:**

**MODEL:**

*This is her advice. – This advice is hers.*

1. This is my friend. 2. We like his jokes. Her jokes are not so interesting as\_. 3. She likes their hostel. Her hostel is not so comfortable as\_. 4. Their knowledge is deep. My knowledge is not so deep as\_.

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.24. Read VOCABULARY and memorize new words.**

**Ex.25. Insert the missing letters:**

Skilled; medicine; consist of; subject; therapist; Anatomy; Biology; Chemistry, health; remedy; disease; knowledge.

**Ex.26. Translate the following word-combinations into Ukrainian:**

To work as a therapist, hostel, full-time job, bad painter, skilled doctor, deep knowledge, particular field of medicine, prominent scientist, protection of the health, it consists of, to make abstracts.

**Ex.27. Read the following words and word-combinations:**

First-year student; care for medicine; because; academy; healthy; science; German; designer; therapist; hostel; pass; whole; Physics; Biology; competition; classes; physical; disease; listen to; fellow-students; rather; awful; practical; Histology; Chemistry; lecturer; attentively; laboratory; knowledge; hostel; literature; come; often.

**Ex.28. Read the following text:**

### I AM A MEDICAL STUDENT



*We study Anatomy*

My name is **Alexander Smirnov**. I am from **Ukraine**. I am **17** years old. I was born on the **17<sup>th</sup> of September in Kyiv**, a capital of Ukraine. Now I am a **first**-year student of the Higher State Educational Establishment of Ukraine "Ukrainian Medical Stomatological Academy".

I was working hard during the whole year having extra lessons in Physics, Biology, and Ukrainian because the competition was very high, and it was difficult to win it.

So, I care for medicine and I am going to be a doctor. Medical students must remember that it is not easy to be a good specialist. A good doctor must have not only deep knowledge of a particular field of medicine. He must love people and have a kind heart. One of the prominent therapists professor Konchalovsky considers that a person may be a poor writer, he may be a bad painter or an actor but a person cannot and must not be a bad doctor.

As for my family it is neither big nor small. There are **five** persons in it. I have my father, mother, **brother, and sister**. My father's name is **Ivan Petrovich**. He is **42** years old. He is a **stomatologist**. He has a full-time job. My mother's name is **Olga Ivanivna**. She is a skilled **doctor**. She has a good reputation in the **hospital**. My brother's name is **Oleg**. He is **13** years old. **He** is doing very well at school. He studies French and German there. My elder sister **Helen** is 25 years old. She is a **designer** by profession. She is married. She has a husband and a son.

I **don't** live with my family at this moment. I live in a **students' hostel**. Now **my relatives live not far from Odesa**. They have a flat of their own in a block of flats. I miss my parents because I love them very much.

My working day begins early because the classes start at half past 8. So, I get up at 7 o'clock. First of all I make my bed, do my morning exercises and go to the bathroom where I brush

my teeth and wash. As I am a medical student I consider that physical exercises are “a good remedy” for the protection of my health against diseases. At about half past 7 I have breakfast, which usually consists of a cup of coffee or tea and a sandwich. During breakfast I listen to the news or music on the radio. I live not far from the academy. It takes me about 15 minutes to get there. I go on foot. My fellow-students who live rather far must take a bus, or trolley bus. City traffic is awful in the morning!

As a rule we have several practical classes and a lecture. We study many subjects, such as Anatomy, Histology, Chemistry, Physics, Biology, History of Medicine, Latin, and English.

Our studies are rather difficult. The most difficult subject for me is Anatomy, but I work hard on it.

When the classes are over I go home (to the hostel). I have dinner and rest a little. Then I read textbooks and additional medical literature, make abstracts, and do some exercises. When I have spare time I watch TV, listen to the music or visit my friends or they come to visit me. I have a lot of friends and we often spend free time together, especially on Sundays.

At 11 o'clock I go to bed. As I work hard I do sleep well.

**Ex.29. Translate the text "I am a Medical Student" into Ukrainian.**

**Ex.30. Answer the following questions:**

1. How old are you? 2. What would you like to be? 3. Where are you from? 4. When and where were you born? 5. How many persons are there in your family? 6. What is your mother's name? 7. What is your father's name? 8. How old is your father? 9. What is your mother's occupation? 10. What is your father doing for living? 11. Do you have brothers or sisters? 12. How old are your sisters and brothers? 13. How many children does your sister/brother have? 14. When does your working day begin? 15. What do you do in the morning? 16. When do you leave your home? 17. How many classes do you have every day? 18. What subjects do you study? 19. What do you do after classes? 20. When do you go to bed?

**Ex.31. Insert the missing words:**

My working day begins \_ 7 o'clock. I \_ my bed and go to the \_ where I brush my teeth and wash. At half past 7 I \_ breakfast. Then I \_ home and go to the Academy. We have several practical \_ and a lecture every day. We study many subjects, such as \_, Histology, Chemistry, \_, Biology, \_, Latin, and English. Our studies are \_ . When the classes are \_ I go home. I \_ text-books, make abstracts and do some \_ . When I have free \_ I watch TV or listen \_ the music. At 11 o'clock I \_ to bed.

**Ex.32. Translate into English:**

1. Прізвище цього лікаря – Сидоренко. Йому 35 років. Він – лікар обласної лікарні. 2. Ганна Павленко – професор. Їй близько 40 років. Вона – відомий терапевт. 3. Цей англієць – містер Браун. Він – досвідчений фахівець. 4. Олені 25 років. Вона заміжня. Олена – кваліфікований і енергійний фахівець. 5. Мій робочий день розпочинається о 6 ранку. 6. Я прокидаюся, умиваюся, снідаю та йду до академії. 7. Наші заняття розпочинаються о 8.30. 8. У мене щодня дві лекції і одне практичне заняття. 9. Ми вивчаємо анатомію, фізіологію, біологію, гістологію та інші предмети. 10. На лекціях я уважно слухаю лектора і конспектую новий матеріал. 11. Найскладніший предмет для мене – анатомія, але я багато над ним працюю. 12. Мені потрібні глибокі знання з багатьох спеціальних предметів. Це дуже важливо для моєї майбутньої роботи. 13. Після занять я йду додому та трохи відпочиваю. 14. Увечері я готуюся до практичних занять і читаю матеріал, необхідний для майбутньої лекції.

**Ex.33. Fill out the form:**

**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 Employment \_\_\_\_\_  
 Sex: M \_\_\_\_\_ F \_\_\_\_\_  
 Marital Status: Married \_\_\_\_\_ Single \_\_\_\_\_

**Ex. 34:**

1. Tell your fellow-students about yourself.
2. Describe your family to your new friend.
3. Show a friend your family album and answer all his/her questions.

**OVERVIEW**

My name is Alexander Smirnov. I am from Ukraine. I am 17 years old. I am a first-year student of the Higher State Educational Establishment of Ukraine "Ukrainian Medical Stomatological Academy". As for my family it is neither big nor small. I have my father, mother, brother, and sister. My father's name is Ivan Petrovych. He is 42 years old. He is a stomatologist. My mother's name is Olga Ivanovna. She is a skilled doctor. My brother's name is Oleg. He is 13 years old. He is a schoolboy. My elder sister Helen is 25 years old. She is a designer. My working day begins early. I get up at 7 o'clock. At about 8 o'clock I leave home and go to the Academy. As a rule we have several practical classes and a lecture. We study many subjects, such as Anatomy, Histology, Chemistry, Physics, Biology, History of Medicine, Latin, and English. During the lectures we make notes of new and interesting facts and listen to the lecture attentively. When the classes are over I go home (to the hostel). I have dinner and rest a little. Then I read textbooks, make abstracts and do some exercises. At 11 o'clock I go to bed.

**Lesson 2**  
**Medical University**

**VOCABULARY**

**chair** [CFq] кафедра

**train** [treln] ГОТУВАТИ

**physician** [f'zIS(q)n] лікар

**surgeon** [s'WG(q)n] хірург

**pediatrician** [p'edIq'trIS(q)n] педіатр

**therapist** [t'ereq'pjw:tlst] терапевт

**gynaecologist** [g'galnl'kOlqGlst] гінеколог

**practical skills** ['prektIkqI'sklz] практичні навички

**diagnosis** [d'alqg'nousls] діагноз

**prescribe** [prls'kralb] призначати

**proper** ['prOpq] належний, необхідний

**treat** [tr:t] лікувати

**treatment** ['trltmqnt] лікування

**fill in** [fl] заповнювати

**stomatologist** [stOmɑ'tO:lqGlst] СТОМАТОЛОГ

**senior** ['sl:njɑ] старший

**acquire** [ɑk'waɪq] набувати

**Therapy** ['Terɑpl] терапія

**Surgery** ['sq:Gerɪ] хірургія

**Obstetrics** [Ob'stetrɪks] акушерство

**faculty** ['fekɑltɪ] факультет

**successfully** [s(q)k'sesfʊlɪ] вдало

**qualified** ['kwɒlɪfaɪd] кваліфікований

**scientist** ['saɪəntɪst] учений

**last (take)** [lɑst] тривати

**patient** ['peɪs(q)nt] пацієнт

**examine** [ɪg'zɑmɪn] оглядати

## PHONETICS

**Ex.1. Practice the spelling of the following sounds:**

[q], [W], [e], [x], [Q], [R], [a], [A], [u], [H], [l], [l:], [o], [O], [L].

[ju], [el], [al], [Fq], [uq], [jA].

**Ex.2. How do you spell your name. Practice the spelling your name in pairs.**

**MODEL:** Debbie: [di:], [l:], double [b:], [aɪ], [l:].

## GRAMMAR:

### WORD ORDER IN A STATEMENT

**Ex.3. Familiarize yourself with the data of the following table:**

Modifier (When, Where)	Subject (What, Who)	Predicate	Direct Object (What)	Prepositional Object (To whom)	Modifier of Place (Where)	Modifier of Time (When)
	I	have	three classes		at the University	on Monday.
	Student	gave	his notes	to his friend.		
	We	answer	the questions		at the lessons	every day.
Last year	our faculty	trained	200 students.			
In Kyiv	many surgeons	work			at the regional hospital.	

**Ex.4. Make up sentences using the following words and word-combinations:**

1. are / seriously ill / her parents. 2. at / 5 o'clock / has dinner / Nick. 3. lasts / doctors' training / six / years. 4. 3.000 students / at our Academy / study. 5. is over / the academic year / in June. 6. students / during the first year / pre-clinical subjects / study.

**Ex.5. Familiarize yourself with the data of the following table:**

### ARTICLE

<b>a (an)</b>	is used only with countable nouns in the singular; is used before a noun when we name the object referring to a class objects having this name; is used when a person or thing unknown to the hearer or reader; is mentioned for the first time.
<b>the</b>	is used with nouns both in the singular and in the plural;



	<p>is used with a noun if it is clear from the context or situation what particular object meant;</p> <p>is used before the names of oceans, seas, rivers, mountain chains, and compound names of countries: <i>the Atlantic Ocean, the Black Sea, the Mississippi, the Rocky Mountains, the United States of America.</i></p>
<b>zero article</b>	<p>is used in a number of set expressions: <i>at night (уночі), by train (поїздом), to go home (їти додому)</i>;</p> <p>is used with nouns preceded by possessive, demonstrative or interrogative pronouns: <i>your sister, this lesson, some doctors, each student, What story?</i>;</p> <p>is used with the names of persons and animals: <i>Tom Brown.</i></p> <p>(But the definite article is used with the name in the plural which denotes the whole family: <i>We'll invite the Browns</i>);</p> <p>is mostly used with the names of countries, cities, streets, squares, and parks: <i>Poland, Paris, Oxford Street, Trafalgar Square, Hyde Park.</i></p>

**Ex.6. Complete the sentences with articles if it is necessary:**

1. I am \_ medical student. 2. They are from different countries: \_ Germany, \_ Italy, \_ USA, \_ Ukraine, and \_ Japan. 3. Marry goes \_ home after classes. 4. He was born in \_ Paris but now he lives in \_ London. 5. Our group consists of \_ some students. 6. London is \_ city. 7. M.V. Gogol is \_ outstanding Ukrainian writer.

**READING AND DEVELOPING SPEAKING SKILLS**

**Ex.7. Read VOCABULARY and memorize new words.**

**Ex.8. Insert the missing letters and translate the words:**

Pediatr\_i\_an; acqu\_re; fac\_lty; p\_ss; pres\_ribe; physi\_ian; di\_gnosis; dis\_ase; prepa\_e; tre\_tment; gyna\_cologist; therape\_tist; l\_st.

**Ex.9. Translate the following word-combinations and sentences into Ukrainian:**

- to consist of** – складатися з; academic year consists of two terms; this organ consists of some parts.
- to examine** – оглядати; to examine the heart; examination; close examination of the patient; X-ray examination; Let me examine you; I'll examine you.
- health** – здоров'я; to be in good health; to be in poor health; health protection; Our country pays great attention to the health protection.
- to fill in** – заповнювати; вписувати, вносити; to fill in a temperature chart; The physician fills in the patient's card.
- knowledge** – знання; to have good knowledge of medicine; The student's task is to have deep knowledge of Anatomy; He must give all his knowledge to the protection of people's health.

**Ex.10. Read the following words:**

Medicine, speciality, surgeon, pediatrician, therapist, prepare, last, Chemistry, Biology, Histology, subject, senior, acquire, treatment, disease, term, successfully, pass, qualified, outstanding, scientist, technician, Ophthalmology.

**Ex.11. Read and translate the following text:**

**UKRAINIAN MEDICAL STOMATOLOGICAL ACADEMY**

I am a student of the Higher State Educational Establishment of Ukraine "Ukrainian Medical Stomatological Academy". Our Academy is situated in the center of our city. About 3.000 students study at the Academy. There are some faculties at our Academy: medical, stomatological, nursing,

dental technician, grounding and post-graduate education. Medical faculty trains doctors of different specialities: family doctors, surgeons, pediatricians, therapists, gynaecologists and others. Stomatological faculty prepares stomatologists of different specialities. Doctors' training takes six years and stomatologists' training lasts five years.

During the first two years the students study Physics, Chemistry, Anatomy, Biology, Histology, History of Medicine, Latin, foreign languages and other pre-clinical subjects. Senior students study Therapy, Surgery, Obstetrics, Gynaecology, Ophthalmology, Dentistry and others. To make good progress in these and other subjects, medical students must work hard on them.

During the lectures we make notes of new and interesting facts and listen to the lecturer attentively. Sometimes we work in a laboratory. We know that we shall need deep knowledge of many subjects in our future work.

Our classes last till 4.50 p.m. A lesson lasts 90 minutes with a 5-minute break and 40-minute interval between lessons.

We have practical training at hospitals and polyclinics. Senior students acquire such practical skills, as to examine patients, to make a diagnosis, to prescribe proper treatment, and to fill in case histories.

The academic year starts in September and is over in June. It consists of two terms.

Our teachers are very qualified. Several outstanding scientists work at our Academy. Their research works are well known in our country and abroad.

**Ex.12. Translate the following words and word-combinations into English:**

Факультет; різні спеціальності; хірург; терапевт; стоматолог; підготовка лікарів; доклінічні предмети; готувати; тривати; практика; починати(ся); закінчувати(ся); навчальний рік; семестр; набувати; практичний навик; оглядати пацієнтів; встановлювати діагноз; призначати необхідне лікування; заповнювати історії хвороби; лікувати; наукова робота.

**Ex.13. Answer the following questions:**

1. Where do you study? 2. What year student are you? 3. How many students study at your Academy? 4. What faculties are there at the Academy? 5. What specialists does the medical faculty train? 6. What specialists does the stomatological faculty prepare? 7. How long does the training take at your Academy? 8. What subjects do you study? 9. How often do you take your credit tests? 10. How many terms does the academic year have? 11. What practical skills do the senior students acquire?

**Ex.14. Translate the words given in brackets into English:**

1. Our Academy is situated (у центрі) of Poltava. 2. Stomatologists' training (триває) five years. 3. (Навчальний рік) begins in September. 4. The academic year (закунчується) in June. 5. We have credit tests (в кінці кожного семестру). 6. Several (видатних учених) work at our Academy.

**Ex.15. Insert the necessary words or word-combinations:**

1. About 3.000 students \_ at the Academy. 2. There are some \_ at our Medical Institute, they are: medical, stomatological, nursing, dental technician, grounding and post-graduate education. 3. Medical faculty \_ doctors of different specialities, such as: \_ . 4. Stomatological faculty \_ stomatologists. 5. Doctors' \_ takes six years. 6. Stomatologists' training \_ five years. 7. During the first two years medical students study \_ . 8. Senior students study \_ . 9. We have \_ at the hospitals, clinics, and polyclinics. 10. Senior students \_ practical skills, as to examine patients, to make a diagnosis, and to prescribe proper treatment. 11. The academic year \_ two terms. 12. Several \_ scientists work at our University.

**Ex.16. Translate the following sentences into English:**

1. Медичний факультет готує терапевтів, хірургів, гінекологів, офтальмологів та інших фахівців. 2. Підготовка лікарів триває шість років. 3. Стоматологічний факультет готує стоматологів. 4. Підготовка стоматологів триває п'ять років. 5. Студенти-медики проходять практику в лікарнях і поліклініках нашого міста. 6. Студенти-старшокурсники вчаться оглядати хворих, ставити діагноз і призначати лікування. 7. Навчальний рік складається з двох семестрів. Перший починається у вересні, а другий – в лютому.

**Ex.17. Insert the necessary words:**

1. Why did you \_ medicine as your speciality? 2. How many students \_ at the Academy? 3. What faculty do you \_ at? 4. What \_ does your friend study at? 5. What specialists does the stomatological faculty \_? 6. What specialists does the medical faculty \_? 7. How many years does the doctors' training \_?

**Ex.18. Read the following dialogue and try to reproduce it:**

1. Do you study or work?	1. I study.
2. Where do you study?	2. I study at the Ukrainian Medical Stomatological Academy.
3. Why did you choose medicine as your speciality?	3. I want to become a doctor. I'd like to take care about people, to treat them, and to help them to be healthy.
4. How many students study at your Academy?	4. About 3,000 students study at the Academy.
5. What faculties are there at your Academy?	5. There are some faculties at our Academy: medical, stomatological, nursing, dental technician, grounding and post-graduate education.
6. What faculty do you study at?	6. I study at the medical faculty.
7. What specialists does the medical faculty train?	7. Medical faculty trains therapists, surgeons, gynaecologists, pediatricians, ophthalmologists, ear, throat and nose specialists and others.
8. What specialists does the stomatological faculty prepare?	8. The stomatological faculty prepares stomatologists of different specialities.
9. How long does the training take at your Academy?	9. Doctors' training takes six years and stomatologists' training lasts five years.
10. What subjects do the medical students study?	10. During the first two years the students study preclinical subjects, as Anatomy, Biology, Chemistry, Physics, Histology, Latin and others. Senior students study such clinical subjects, as Therapy, Surgery, Gynaecology, Obstetrics, Ophthalmology, Dentistry and some others.
11. Do the medical students have their practical training?	11. Yes, they do. The medical students have their practical training at various hospitals and polyclinics.
12. What practical skills do the senior students acquire?	12. Senior students acquire such practical skills, as to examine patients, to make a diagnosis, to prescribe

13. How often do you take your credit tests?	proper treatment, and to fill in case histories. 13. We take our credit tests some times a year.
14. How many terms do you have in the academic year?	14. We have two terms in the academic year.
15. When does the academic year start and when is it over?	15. The academic year starts in September and is over in June.
16. What can you say about the teaching staff of the Academy?	16. Our teachers are very qualified. Several outstanding scientists work at our Academy. Their research works are well known in our country and abroad.

**Ex.19. There are some of the subjects taught at Medical University. Write down those you learn now:**

Anatomy, Chemistry, Physics, Neurology, Pathology, Therapy, Latin, Surgery, Oncology, Histology, Economics, Biology, Urology, Physiology, Pathologic Physiology, Ophthalmology.

**Ex.20. Read and retell the following text:**

**MEDICAL UNIVERSITY**

Our Medical University is one of the oldest Ukrainian medical schools, and one of the most prominent and respectful in the country and abroad. At present University is a very prestigious establishment, which provides the best medical education.

The University has been a leader in developing medical science and medical education. Today, at the beginning of the third millennium, the University is a large medical scientific, research and educational center, noted for its extensive clinical and laboratory base and a brilliant teaching staff. This staff has unique pedagogical experience in training students and postgraduates from all over the world and is always happy to pass on their knowledge and experience.

The University has broad international contacts in the field of education, medical science, health care, and economic activities. The diplomas of our University are recognized in many countries all over the world.

Annually about 4,000 students from Ukraine and foreign countries study at the University. There are three major faculties at University: medical faculty, pediatric faculty, and bio-medical faculty.

The plan of annual admission of first-year students is regularly fulfilled. The University offers the preparatory courses for foreign students where they study Ukrainian, Biology, Chemistry, and Physics.

After graduation from the University over 1.000 students are annually trained at the internship, clinical studies and take the postgraduate course.

The University students, postgraduates and interns, working for their academic degrees, are trained and get specialization, improve their knowledge and skills, carry out their theses at 74 chairs, 22 scientific-research laboratories of Medical University. The University has large library with more than 40,000 volumes in Ukrainian and foreign languages.

The University has very close link with the practical medicine. The bases of University are 32 specialized clinics, hospitals and other preventive and medical institutions for more than 9,000 beds, where the future doctors get extensive probation under the supervision of the most experienced tutors.

Many prominent scientists of Ukraine are working at the Medical Faculty of the University.

The glorious past of the University, deep pedagogical and scientific traditions, the importance of medical science and practice, and a wide range of qualified specialists, trained in the University, assure a leading role of our University.

Today Medical University is a complex of buildings designed for practical classes, lectures, laboratory studies, research work, and auxiliary services. All of the out-of-town students have been accommodated at the hostels. Students get medical assistance at a polyclinic staffed by doctors in all fields of medicine. Although studies are the most important in the students' life, attention is also paid to sport and entertainment. The University has sport complex, where students can attend sections of tennis, volleyball, etc.

## OVERVIEW

I am a student of the Higher State Educational Establishment of Ukraine "Ukrainian Medical Stomatological Academy". There are some faculties at our Academy: medical, stomatological, nursing, dental technician and others. Medical faculty trains doctors of different specialities: family doctors, surgeons, pediatricians, therapists, gynaecologists and others. Stomatological faculty prepares stomatologists of different specialities. Doctors' training takes six years and stomatologists' training lasts five years. During the first two years the students study Physics, Chemistry, Anatomy, Biology, Histology, History of Medicine, Latin, foreign languages, and other pre-clinical subjects. Senior students study Therapy, Surgery, Obstetrics, Gynaecology, Ophthalmology and others. They acquire such practical skills, as to examine patients, to make a diagnosis, to prescribe proper treatment, and to fill in case histories.

## Lesson 3 History of Dentistry

### VOCABULARY

**science** ['saɪəns] наука

**root** 1 [ru:t] корінь

**exist** [ɪg'zɪst] існувати

**tooth decay** [dɪ'keɪ] гниття зуба, карієс

**worm** [wɜ:m] черв'як

**suffer** ['sʌfə] страждати, хворіти

**toothache** ['tu:θeɪk] зубний біль

**treat** [tri:t] лікувати

**gum** [gʌm] ясна

**jaw** [dʒɔ:] щелепа

**treatise** ['tri:tɪz] трактат, наукова праця

**prosthesis** ['prɒsθɪsɪs] протез

**extraction** [ɪk'strækʃn] видалення

**barber** ['bɑ:bə] перукар, цирюльник

**filling** ['fɪlɪŋ] пломба

**engine** ['endʒɪn] бор-машина

**nitrous oxide** ['nɪtraʊs 'ɒksaɪd] окис азоту

**procedure** [prə'si:dʒə] процедура

**alleviate** [ə'li:vɪeɪt] полегшувати, пом'якшувати

**bristle** ['brɪsl] щетина

### RULES OF READING

#### VOWELS (ГОЛОСКИ)

Тип читання	а	о	е	і	у	u
Закритий склад	fact [ɪ]	on [ɒ]	leg [e]	till [ɪ]	lymph [ɪ]	bus [ʌ]
Відкритий	take	hope	he	pipe	my	tube

<b>склад</b>	[el] but: have [hæv]	[ou]	[l:]	[al]	[al] but: body [bɔ:d]	[ju:]
<b>Голосна перед r</b>	<b>arm</b> [a:]	<b>cord</b> [ɔ:]	<b>her</b> [ɜ:]	<b>first</b> [fɜ:]	<b>byrd</b> [bɜ:]	<b>turn</b> [tɜ:]
<b>Голосна перед re</b>	<b>care</b> [fɜ]	<b>more</b> [ɔ:]	<b>here</b> [hɜ]	<b>fire</b> [aɪ]	<b>lyre</b> [aɪ]	<b>cure</b> [ju]

**Ex.1. Read the following words:**

Faculty; examine; student; academy; city; subject; fact; lesson; prescribe; fill; case; start; consist; term; several; different; study; prepare; take; carry; very; respectful; university; medical; establishment; provide.

**WORD-BUILDING**

**Ex.2. Familiarize yourself with the following material:**

**Suffixes of Noun:**

**-ist** (specialist)

**-logy** (study of)

**Ex.3. Read and translate the following words:**

**A.** Physiologist; nephrologist; therapist; scientist; dentist; stomatologist; neurologist; oncologist.

**B.** Biology; microbiology; physiology; oncology; immunology; psychology; radiology; reanimatology; pathology.

**GRAMMAR:**

**Ex.4. Familiarize yourself with the data of the following table:**

**NUMBER OF NOUNS**

leg	legs
disease	diseases
dress	dresses
research	researches
box	boxes
remedy	remedies
day	days
life	lives
tooth	teeth
foot	feet
atrium	atria

**Ex.5. Form plural from the following nouns:**

**A.** Subject, remedy, heart, parent, class, disease, chair, physician, skill, scientist, faculty, service, leaf, syllabus, pass, intern, nurse.

**B.** Sanatorium, woman, child, nucleus, alveolus, vertebra.

**Ex.6. Familiarize yourself with the data of the following table:**

**CONSTRUCTION “THERE + TO BE”  
(Affirmative Form)**

Present Simple	Past Simple	Future Simple
There is (Singular) There are (Plural)	There was (Singular) There were (Plural)	There will be (Singular, Plural)

**Ex.7. Translate the following sentences into your native language:**

1. There are 320 patients in this clinic. 2. There were 17 faculties at Oxford University in 1967. 3. There will be many friends in my party. 4. There were several practical classes at our Institute last week. 5. There is a nurse in the therapeutic department. 6. There was an old clinic in our city. 7. There are some faculties at the Medical Academy.

**Ex.8. Put the following sentences into Past and Future Simple Tenses:**

1. There is a medical faculty at our Academy. 2. There are many clinical chairs at the University. 3. There are many qualified teachers at our Medical University. 4. There are several outstanding scientists at our hospital. 5. There are many medical colleges in our country. 6. There is a very interesting museum in our village. 7. In this residential district there are a lot of parks.

**Ex.9. Continue the following statements according to the pattern. Translate sentences into your native language.**

Pattern: There is a teacher in the classroom. (many students)

**There are** many students in the classroom.

1. There is an instrument table in the corner (two armchairs). 2. There is a medical journal on the table (some newspapers). 3. There is an Atlas on Anatomy in his bag (some copybooks). 4. There is a key in my pocket (a few other things). 5. There is one tree near the house (some bushes). 6. There is a bus in the street (many cars). 7. There is the sun in the sky (some clouds). 8. There is an old house in this district (many new houses).

**Ex.10. Insert *there is* or *there are*:**

1. ... a dictionary in my bag. 2. ... some interesting chapters about gum diseases in this book. 3. ... little coffee in the cup. 4. ... some chalk here. 5. ... some very bright girls in our group. 6. ... a bedside table and two chairs in the ward. 7.

**Ex.11. Translate the following sentences into English:**

1. У нашій лікарні декілька відділень. 2. У цьому університеті – дві бібліотеки. 3. У національному університеті близько 25 факультетів. 4. У читальному залі було декілька студентів. 5. У районній поліклініці буде багато пацієнтів. 6. Вчора в цьому залі були збори.

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.12. Read VOCABULARY and memorize new words.**

**Ex.13. Compose 3-4 your own sentences using the words of the VOCABULARY.**

**Ex.14. Insert the missing letters and translate the words and word-combinations:**

Dent\_stry, dise\_ses, toot\_ache, ca\_se, an\_ient, g\_m, j\_w, bl\_od, proc\_dure, too\_h, chron\_c, prosth\_sis, deca\_, cro\_n, flu\_ride, tooth\_rush, pre\_entive.

**Ex.15. Mind the pronunciation of the following proper names:**

**Mesopotamia** [ˈmesəpəˈteɪmɪə] **Hindu** [ˈhɪnduː], **China** [ˈtʃaɪnə], **Egypt** [ˈiːdʒɪpt], **Hippocrates** [hɪˈpɪkrətiːz], **Aristotle** [ˈarɪs ˈtɹɪtl], **George Washington** [dʒoːdʒ ˈwɒsɪntən], **Baltimore** [ˈbɔːltɪmɔː], **Newburgh** [ˈnjuːbɜːg], **William Morton** [ˈwɪljəm ˈmɔːtən], **Charles** [tʃɑːlz], **John** [dʒɒn], **Alfred** [ˈælfɪrd].

**Ex.16. Read and translate the following text:**

**History of Dentistry**

Each science has its own history. Dentistry is not very old branch of medicine but its roots came from the early years of existing of the human being.

It is known that prehistoric man suffered from the same dental diseases as people do nowadays. The first mention about toothache was found in Mesopotamia. Some inhabitants of Mesopotamia stated that the cause of tooth decay (caries) was the worm. This is logical, as the holes created by cavities are somewhat similar to those bored by worms into wood. The ancient Hindus inserted gold into holes. They used extraction tools and other dental instruments; they also treated gum diseases. In ancient China toothache was treated by acupuncture. In Egypt lost teeth were replaced with extracted ones from slaves and they were held by gold wire.

Ancient Greek scholars Hippocrates and Aristotle wrote about dentistry, including the eruption pattern of teeth, treating decayed teeth and gum disease, extracting teeth with forceps, and using wires to stabilize loose teeth and fractured jaws. Galen was the founder of theory that decay was caused by disturbance in the blood.

Historically, dental extractions have been used to treat a variety of illnesses. During the Middle Ages and throughout the 19th century, dentistry was not a profession in itself, and often dental procedures were performed by barbers or general physicians. Barbers usually limited their practice to extracting teeth which alleviated pain and associated chronic tooth infection.

The first dental textbook written in English was called "Operator for the Teeth" by Charles Allen in 1685. It was between 1650 and 1800 that the science of modern dentistry developed. It is said that the 17th century French physician Pierre Fauchard started dentistry science as we know it today, and he has been named "the father of modern dentistry" because his book "The Surgeon Dentist, A Treatise on Teeth" was the first to describe a comprehensive system for caring for and treating the teeth. Among many of his developments were the extensive use of dental prosthesis, the introduction of dental fillings as a treatment for dental caries.

The first dental foot engine was built in 1790 by John Greenwood and one of George Washington's dentists. It was made from an adapted foot-powered spinning wheel. In 1871, George F. Green invented the first electrical dental engine.

1790 was a big year for dentistry, as this was also the year the first specialized dental chair was invented. It was made from a wooden chair with a headrest attached.

The First Dental School was founded in 1840. Chapin Harris and Horace Hayden founded the Baltimore College of Dental Surgery, the first school dedicated solely to dentistry. The college merged with the University of Maryland School of Dentistry in 1923, which still exists today.

Dentistry has seen a great deal of innovation over the past 100 years. In 1903 Charles Land devised the porcelain jacket crown. In 1905, Alfred Einhorn, a German chemist, discovered Novocain. In 1938, the first tooth brush with synthetic nylon bristles hit the market. In 1945, the water fluoridation era began when the cities of Newburgh, NY and Grand Rapid decided to add fluoride to the public water supply. In 1950, the first fluoride toothpastes are marketed. In 1957, John Borden invented the first high speed electric hand drill. In the 1960s, the first dental lasers are developed and used for soft tissue procedures. The 1960s also saw the invention of the first electric toothbrush.



The 1990s marks the beginning of the era of cosmetic dentistry, with the increased popularity of veneers, bleaching, and dental implants.

With the advent of the 20<sup>th</sup> century dentistry continued to progress on many fronts including technology, oral hygiene, preventive dentistry and dental education.

**Ex.17. Find in the text the equivalents for the following words and word-combinations:**

Стоматологія, профілактична стоматологія, хвороби зубів, видалення зубів, зламана щелепа, хвороби ясен, утримувати зуби разом, французький лікар, карієс, лікувати каріозний зуб, стоматологічні процедури, хронічна інфекція зуба, застосування зубних протезів, електрична бормашина, присвячуватися виключно стоматології, підголовник, електрична зубна щітка, порцелянова коронка, зубна паста з умістом фтору, м'які тканини, косметична стоматологія, відбілювання зубів, фторування водопровідної води, ручна бормашина.

**Ex.18. Answer the following questions:**

1. Is dentistry a new branch of medicine? 2. What did the ancient Hindus insert into holes? 3. How were lost teeth replaced in ancient Egypt? 4. What was the idea of tooth worm hypothesis? 5. What did ancient Greek scholars Hippocrates and Aristotle write about dentistry? 6. When was the science of modern dentistry developed? 7. Who is said to be the father of modern dentistry? 8. When was the first dental foot engine built? 9. What was the first school dedicated solely to dentistry? 10. What are dental inventions of the XX century?

**Ex.19. Insert the missing words:**

1. Dentistry has seen a great deal of \_\_\_\_\_ over the past 100 years. 2. The first dental foot \_\_\_\_\_ was built in 1790 by John Greenwood. 3. Barbers usually limited their practice to extracting teeth which alleviated \_\_\_\_\_ and associated chronic tooth infection. 4. Prehistoric man suffered from the same dental \_\_\_\_\_ as people do nowadays. 5. Galen was the founder of theory that \_\_\_\_\_ was caused by disturbance in the blood. 6. John Borden invented the first high speed electric hand \_\_\_\_\_. 7. The 1990s marks the beginning of the era of \_\_\_\_\_ dentistry. 8. The first tooth brush with synthetic nylon \_\_\_\_\_ hit the market.

**Ex.20. Skim through the text "History of Dentistry" and find sentences expressing its main idea.**

**Ex.21. Make up a plan of the text " History of Dentistry ".**

**Ex.22. Tell the group about history of Dentistry keeping the following consistency:**

Ancient times; Middle Ages; the 19<sup>th</sup> century; the 20<sup>th</sup> century.

**Ex.23. Read the following text and write out unknown words:**

**The father of modern dentistry**

Pierre Fauchard (1678 –1761) was a significant French physician, credited as being the "father of modern dentistry". He is widely known for his book, "The Surgeon Dentist" 1728, where he described the basic oral anatomy and function, signs and symptoms of oral pathology, operative methods for removing decay and restoring teeth, periodontal disease, orthodontics, replacement of missing teeth, and tooth transplantation. His book is said to be the first complete scientific description of dentistry. Fauchard's text was followed by others who continued to expand the knowledge of the dental profession throughout Europe.

*Highlights*

- Pierre suggested that the German tooth worm theory was mistaken in its explanation of dental decay. His observations through the microscope showed there was no evidence of worms.
- Fauchard also said the cause of dental caries was sugar, and people should limit it from their daily food.
- Pierre disproved theories of spontaneous tooth generation, arguing that the first teeth, which are called milk teeth, separate themselves from their roots. Some dentists at Fauchard's time believed they didn't have roots.
- Fauchard introduced dental fillings as treatment for dental cavities, and he suggested amalgams like lead, tin and sometimes gold. He also said that teeth should be cleaned periodically by a dentist.
- Pierre said that braces should be used to correct the position of teeth, and that children's teeth could be moved more easily and quickly than adults', a result of the size of the teeth roots, according to Fauchard.
- Fauchard was ahead of his time in medical practice and he described the way how the patient should be greeted by the doctor and in what particular position the patient should sit.
- Pierre recommended that the dentist should stand behind the patient to help them relax, and he introduced the concept of dentist's chair light.

**Ex.24. Insert the missing prepositions (for, by, from, of, ):**

John Greenwood was one ... George Washington's, the first American President, most regular dentists. John was responsible ... designing Mr. Washington's famous dentures, which despite many legends were not wood but were carved ... the tusk of a hippopotamus. John also invented the first known dental foot engine ... modifying the foot pedal ... his mother's spinning wheel to rotate the drill.

**Ex.25. Read the following information and compose the dialogue:**

**Who invented the toothbrush and when was it invented?**

The toothbrush as we know it today was not invented until 1938. However, early forms of the toothbrush have been in existence since 3000 BC. Ancient civilizations used a "chew stick," which was a thin twig with a frayed end. These 'chew sticks' were rubbed against the teeth.

The bristle toothbrush, similar to the type used today, was not invented until 1498 in China. The bristles were actually the stiff, coarse hairs taken from the back of a hog's neck and attached to handles made of bone or bamboo.

Boar bristles were used until 1938, when nylon bristles were introduced by Dupont de Nemours. The first nylon toothbrush was called Doctor West's Miracle Toothbrush. Later, Americans were influenced by the disciplined hygiene habits of soldiers from World War II. They became increasingly concerned with the practice of good oral hygiene and quickly adopted the nylon toothbrush.

Some other interesting toothbrush facts:

The first mass-produced toothbrush was made by William Addis of Clerkenwald, England, around 1780.

The first American to patent a toothbrush was H. N. Wadsworth on Nov. 7, 1857.

Mass production of toothbrushes began in America around 1885.

One of the first electric toothbrushes to hit the American market was in 1960. It was marketed by the Squibb company under the name Broxodent.

**Notes:**

- twig** – прутик, гілочка
- frayed** - пошарпаний, потріпаний; поторсаний; пом’ятий
- hog** – кабан
- boar** – хряк
- stiff** – жорсткий, негнучкий
- coarse** – грубий

**OVERVIEW**

Dentistry is not very old branch of medicine but its roots came from the early years of existing of the human being. It is known that prehistoric man suffered from the same dental diseases as people do nowadays. The first mention about toothache was found in Mesopotamia. Ancient Greek scholars Hippocrates and Aristotle wrote about dental diseases and their treatment. During the Middle Ages and throughout the 19th century, dentistry was not a profession in itself. In the 17th century French physician Pierre Fauchard started dentistry science as we know it today, and he has been named "the father of modern dentistry". Dentistry has seen a great deal of innovation over the past 100 years, such as porcelain jacket crown, Novocain discovery, tooth brush with synthetic nylon bristles, water fluoridation and many others. With the advent of the 20<sup>th</sup> century dentistry continued to progress on many fronts including technology, oral hygiene, preventive dentistry and dental education.

**Careers in Dentistry**

**VOCABULARY**

- |   |   |
|---|---|
| <b>demand</b> [dɪ'mRnd] вимога                          | <b>cavity</b> ['kævɪtɪ] порожнина   |
| <b>prevent</b> [prɪ'vent] запобігати                    | <b>appliance</b> [ə'plɑ:qns] прилад   |
| <b>hygiene</b> ['haɪdʒi:n] гігієна                      | <b>pulp</b> [pʌlp] пульпа зуба  |
| <b>denture</b> ['dentʃə(r)] протез                      | <b>prescription</b> [prɪs'krɪpʃ(ə)n] рецепт   |
| <b>procedure</b> [prə'si:dʒə] процедура                 | <b>flossing</b> [flɔ:sɪŋ] чищення зубів зубною ниткою   |
| <b>affect</b> ['æfekt] вражати, пошкоджувати            | <b>palate</b> ['pælɪt] піднебіння   |
| <b>filling</b> ['fɪlɪŋ] пломба                          | <b>braces</b> [breɪsɪz] ортодонтичні скоби  |
| <b>root canal</b> [kə'neɪl] кореневий канал             | <b>patient</b> ['peɪsɪnt] пацієнт   |
| <b>bite</b> [baɪt] прикус                               | <b>sealant</b> ['si:lənt] пломбувальний матеріал; пломба; профілактичне покриття зубних фісур |
| <b>straighten</b> ['streɪt(ə)n] вирівнювати, виправляти |   |

**RULES OF READING**

Letters	Sounds	Examples	Notes
e	-	make take	в кінці слова не читається
e	[ɪ]	darkness	ненаголошений склад

i y		cavity happy	
a o u or er	[q]	husband freedom doctor better	ненаголошений склад
o + l, m, n e + l, m, n i + l, m, n	-	lesson open pencil	в ненаголошеному складі часто не читаються

**Ex.1. Read the following words:**

Engage, defend, syllabus, approve, include, obtain, department, five; faculty, anatomy, make, grade, expensive, receive, surgery, specialist, control, number, result, construction, reason, council.

**WORD-BUILDING**

**Ex.2. Familiarize yourself with the following material:**

**Suffix of Adjective:**

**-al** (pertaining to)

center *центр* – central *центральний*

profession *професія* – professional *професійний*

**Ex.3. Read and translate the following words:**

Clinical; practical; surgical; internal; medical; final; neurological; physiological; epidemiological; general; local; bacterial, viral, gastrointestinal; experimental; chemical; bronchial; normal; physical; emotional; lacrimal.

**GRAMMAR:**

**Ex.4. Familiarize yourself with the data of the following table:**

**CONSTRUCTION “THERE + TO BE”  
(Interrogative Form)**

<b>Present Simple</b>	Is there Are there	a nurse any doctors	in the department? in your village?
<b>Past Simple</b>	Was there Were there	a large hospital many out-patient departments	in your city? in this clinic?
<b>Future Simple</b>	Will there be	a new polyclinic	in this street?

**NOTE:** In affirmative form “some” is used, in interrogative form “any” is used, in the negative form “no” and “not any” are used: There are **some** hospitals there. Are there **any** hospitals there? There are **no** hospitals there. There are **not any** hospitals there.

**Ex.5. Read and translate the following questions:**

1. Are there any departments in this hospital? 2. Were there many students at the lecture? 3. Are there any medical schools in your city? 4. Were there any tests last term?

**Ex.6. Put general and special questions to the following sentences:**

1. There are some well-known surgeons in this department. 2. There were five medical schools in my city. 3. There will be some test units next term. 4. There are many private institutions in the USA.

**Ex.7. Insert *some, any* or *no* and translate the sentences:**

1. Are there ... letters for me? No, there aren't ... letters for you. 2. There are ... departments in our regional hospital. 3. There are ... patients at the dentist's office. 4. Are there ... mistakes in your test-paper? 5. There aren't ... instruments on the table. 6. Are there ... fillings in your mouth?

**READING AND DEVELOPING SPEAKING SKILLS**

**Ex.8. Find the translation of the following words. Mind their pronunciation:**

**dentist** ['dentɪst], **orthodontist** ['ɔːTɔːdɒntɪst], **surgeon** ['sɜːdʒɪn], **pedodontist** ['piːdɔːdɒntɪst],  
**periodontist** ['periɔːdɒntɪst], **prosthodontist** ['prɒstəˌdɒntɪst], **pathologist** ['pɑːθɒlədʒɪst], **hygienist**  
[ˈhaɪdʒiːnɪst], **dental technician** [tek'nɪʃn], **dental assistant** [q'sɪstFnt]

*гігієніст, хірург, ортодонт, дитячий стоматолог, помічник стоматолога, зуботехнік, пародонтолог, протезист, патолог, стоматолог*

**Ex.9. Insert the missing letters:**

Dent\_st, sur\_eon, p\_lp, proced\_re, h\_giene, dent\_re, pati\_nt, ort\_odontist, pal\_te, fi\_ling,  
flos\_ing, b\_te, \_avity, techni\_ian, j\_w, rem\_ve.

**Ex.10. Translate the following words and word-combinations:**

Prevention, restorative treatments, provide advice, affect oral health, fill cavities, correct bite ,  
dental care, dental needs, infected teeth, oral lesions, infancy, oral healthcare, blood supply, variety,  
use of fluoride, measurements, nearby areas, give anesthetics, remove decay, diet choices, patient's  
teeth, related structures.

**Ex.11. Match the following English word combinations with the Ukrainian ones:**

- |                                    |  |
|------------------------------------|--|
| 1. cleft lip                       | a) засіб для відбілювання зубів  |
| 2. imaging technologies            | b) структури, пов'язані з ротовою порожниною                             |
| 3. whitening agents                | c) громадськість   |
| 4. specific communities            | d) ретинований зуб (зуб, що не прорізався і знаходиться в кістці щелепи) |
| 5. related structures of the mouth | e) розщеплена губа ("заяча губа")  |
| 6. impacted teeth                  | f) технології візуалізації   |

**Ex.12. Read the following text and translate it.**

**Careers in Dentistry**

Dentistry is the branch of medical science that deals with the prevention, diagnosis and treatment of the teeth, gums, jaws and other related structures of the mouth. The field of dentistry is constantly growing to meet the increasing demand for dental care and there are many opportunities in this field for dentists, dental hygienists, dental assistants, and dental laboratory technicians.

Dentists are healthcare professionals who provide preventive and restorative treatments for problems that affect the mouth and teeth. Dentists diagnose and treat problems with a patient's teeth, gums, and related parts of the mouth. They provide advice and instruction on taking care of teeth and gums and on diet choices that affect oral health.

Dentists typically do the following:

- Remove decay from teeth and fill cavities
- Repair cracked or fractured teeth and remove teeth
- Straighten teeth to correct bite
- Place sealants or whitening agents on teeth
- Give anesthetics to keep patients from feeling pain during procedures
- Write prescriptions for antibiotics or other medications
- Examine x-rays of teeth, gums, the jaw, and nearby areas for problems
- Make models and measurements for dental appliances, such as dentures, to fit patients
- Teach patients about diet, flossing, use of fluoride, and other aspects of dental care

Most dentists are general practitioners and handle a variety of dental needs. Other dentists practice in one of nine specialty areas:

**Dental public health specialists** promote good dental health and the prevention of dental diseases in specific communities.

**Endodontists**, also called pulp specialists, perform root-canal therapy, by which they remove the nerves and blood supply from injured or infected teeth.

**Oral and maxillofacial radiologists** diagnose diseases in the head and neck through the use of imaging technologies.

**Oral and maxillofacial surgeons** operate on the mouth, jaws, teeth, gums, neck, and head, including procedures such as surgically repairing a cleft lip and palate or removing impacted teeth.

**Oral pathologists** diagnose oral diseases, such as oral cancer or oral lesions.

**Orthodontists** straighten teeth by applying pressure to the teeth with braces or other appliances.

**Pediatric dentists** are specialists in the field of dentistry, which includes oral healthcare for children from infancy through the teenage years. In guiding children and teens through their dental growth and development, pediatric dentists often work closely with pediatricians, family physicians, and other dental specialists in providing comprehensive medical and dental care.

**Periodontists** treat the gums and bone supporting the teeth.

**Ex.13. Translate the following words and word-combinations into English:**

Стоматологічна допомога, давати поради та рекомендації, давати знеболювальне, вирівнювати зуби, лікування пульпи зуба, видаляти нерви, ранній дитячий вік, підлітковий вік, зубні протези, кореневий канал, щелепа, шия.

**Ex.14. Answer the following questions:**

1. What is Dentistry? 2. What dental specialties do you know? 3. What are dentist's duties? 4. What are orthodontists primarily concerned with? 5. How may teeth irregularities be corrected? 6. What procedures do oral surgeons perform? 7. What kind of dentist is pediatric dentist? 8. What specialist deals with the prevention and treatment of gum diseases? 9. What do dental public health specialists promote?

**Ex.15. Match the following terms with their definitions:**

1. Oral surgeon	a) the specialist who is primarily concerned with the prevention and correction of irregularities of the teeth
2. Oral pathologist	b) the specialist who is concerned with root canal work

3. Periodontist	c) the specialist who deals with the prevention and treatment of gum diseases
4. Orthodontist	d) the person who prepares patients for treatment, hand instruments and material
5. Endodontist	e) the specialist who is concerned with the diagnosis, study and treatment of mouth infections
6. Dental assistant	f) the specialist who performs extractions, remove cysts, correct palates

**Ex.16. Read the following text and entitle it:**

A dentist's training enables him to undertake, without assistance, all of the treatment necessary for his patients, including construction of their dentures, crowns, gold inlays, etc. Except for the actual treatment performed within the mouth, however, much of the work, which a dentist is qualified to do, can be performed by others.

**Dental hygienist.** Dental hygienists (sometimes also known as oral health practitioners) are dental care professionals and work as part of the dental team. While dentists concentrate on treating tooth and gum conditions, the dental hygienist has a vital role in helping to prevent problems from arising. Dental hygienists carry out procedures such as scaling and polishing teeth, and applying topical fluoride and fissure sealants. The dental hygienist assesses the patient's oral tissues and overall health determining the presence or absence of disease, other abnormalities and disease risks; develops a dental hygiene diagnosis based on clinical findings; formulates treatment care plans; educates patients regarding oral hygiene and preventive oral care.

**Dental laboratory technician** is generally a highly skilled person who constructs artificial dentures, bridges and other dental appliances. Some of technicians perform all types of laboratory work, but others specialize in one aspect of constructing dentures.

**Dental assistants** greatly increase the efficiency of the dentist in the delivery of quality oral health care and are valuable members of the dental care team. The duties of a dental assistant are among the most comprehensive and varied in the dental office. The dental assistant's responsibilities may include:

- assisting the dentist during a variety of treatment procedures
- taking and developing dental radiographs (x-rays)
- asking about the patient's medical history and taking blood pressure and pulse
- preparing and sterilizing instruments and equipment
- helping patients feel comfortable before, during and after dental treatment
- providing patients with instructions for oral care following surgery or other dental treatment procedures, such as the placement of a restoration (filling)
- teaching patients appropriate oral hygiene strategies to maintain oral health (e.g., toothbrushing, flossing and nutritional counseling)
- taking impressions of patients' teeth for study casts (models of teeth)
- performing office management tasks that often require the use of a personal computer
- communicating with patients (e.g., scheduling appointments, answering the telephone)
- helping to provide direct patient care in all dental specialties, including orthodontics, pediatric dentistry, periodontics and oral surgery

**Ex.17. Insert the missing words given below:**

A dental \_\_\_\_\_ can mix filing and impression \_\_\_\_\_; a dental \_\_\_\_\_ can make dentures, \_\_\_\_\_, gold inlays, etc. Dental hygienists are permitted to carry out the following dental work: scaling and polishing \_\_\_\_\_, application of fluorides to teeth, dental health education. This \_\_\_\_\_ must be prescribed by a dentist and carried out under his \_\_\_\_\_.

By utilizing all this \_\_\_\_\_, a dentist becomes the captain of a team which can practice in the most efficient way.

**technician, materials, assistant, teeth, treatment, supervision, assistance, crowns**

**Ex.18. Translate the following sentences into English:**

1. Стоматолог виконує різні види робіт. 2. Ортодонт виправляє неправильне положення зубів. 3. Хірурги-стоматологи видаляють зуби та виконують інші хірургічні процедури у ротовій порожнині. 4. Дитячі стоматологи пломбують зуби дітей, лікують інфекції ясен, попереджають виникнення аномалій прикусу. 5. Пародонтолог – це спеціаліст, який займається профілактикою та лікуванням захворювань ясен. 6. Існує певний перелік робіт, які дозволяють виконувати гігієністам-стоматологам. 7. Зубні техніки виготовляють протези, а протезисти займаються заміщенням втрачених зубів за допомогою штучних протезів.

**Overview**

Dentists are healthcare professionals who provide preventive and restorative treatments for problems that affect the mouth and teeth. Dentists diagnose and treat problems with a patient's teeth, gums, and related parts of the mouth. Most dentists are general practitioners and handle a variety of dental needs. Other dentists practice in one of nine specialty areas: dental public health specialists, endodontists, oral and maxillofacial radiologists, oral and maxillofacial surgeons, oral pathologists, orthodontists, pediatric dentists. A dental assistant can mix filing and impression materials; a dental technician can make dentures, crowns, etc. Dental hygienists carry out scaling and polishing teeth, application of fluorides to teeth, dental health education. By utilizing all this assistance a dentist becomes the captain of a team which can practice in the most efficient way.

**Lesson 5  
Human Anatomy**

**VOCABULARY**

**cranial** ['kreɪnɪəl] черепний

**cheek** [tʃi:k] щока

**cheekbone** [tʃi:kbeɪn] вилиця

**eyebrow** [aɪbraʊ] брова

**forehead** [fɔːrɪd] лоб

**temple** [tempəl] скроня

**division** [dɪ'vɪʒən] поділ, розподіл

**girdle** [gɜːdl] пояс

**pectoral** ['pektərɪəl] грудний

**pelvic** ['pelvɪk] тазовий

**pelvis** [pelvɪs] таз

**refer** [rɪ'fɜː] належати

**inferior** [ɪn'fɪərɪəl] нижчий

**superficial** ['sɜːpɪʃəl] зовнішній

**quadrant** ['kwɒdrənt] квадрант, чверть кола

**approach** [ə'prəʊtʃ] підхід

**kidney** ['kɪdnɪ] нирка

**urinary bladder** ['jʊərɪnərɪ 'blædər] сечовий міхур

**intestine** [ɪn'testɪn] кишка; кишківник

**liver** ['lɪvər] печінка

**tumor** ['tjuːmə] неоплазма, новоутворення; пухлина

**limb** [lɪm] кінцівка

**arm** [ɑːm] плече (частина верхньої кінцівки); рука

**forearm** [fɔːrɑːm] передпліччя

**wrist** [rɪst] зап'ясток

**hand** [hænd] кисть

**shoulder** ['ʃʊldər] плечовий суглоб

**elbow** ['elbəʊ] лікоть

**thigh** [taɪ] стегно (частина нижньої кінцівки)

**leg** [leg] гомілка; нога



**stomach** [ˈstʌmʌk] шлунок  
**spleen** [spli:n] селезінка  
**pancreas** [ˈpʌŋkri:əs] підшлункова залоза  
**gallbladder** [ˈgɔ:lˈblædər] жовчний міхур  
**neck** [nek] шия  
**chest (thorax)** [ˈtʃest (ˈθɔ:rəks)] грудна клітка

**ankle** [ˈæŋkl] надп'яtkово-гомільковий суглоб;  
 зона з'єднання надп'яtkово-гомількового  
 суглоба  
**hip** [hɪp] стегно  
**trunk** [ˈtrʌŋk] тулуб

### RULES OF READING

Letters	Sounds	Examples
o + n, m, v, u, th	[ʌ]	some come
i + nd, ld	[əl]	find mind

#### Ex.1. Read the following words:

Government, cover, found, about, outbreak, mother, mouth, other, kind, child, childhood.

### WORD-BUILDING

#### Ex.2. Familiarize yourself with the following material:

##### Suffixes of Noun:

**-ance, -ence** (denote condition or phenomena)

to resist *чинити опір* – resistance *опір*

to correspond *листуватися* – correspondence *листування*

#### Ex.3. Read and translate the following words:

Dominance; difference; importance; significance; experience; recurrence; independence; disturbance; entrance; assistance.

### GRAMMAR:

#### Ex.4. Familiarize yourself with the data of the following table:

##### FORMS OF THE VERB

I	II	III	IV
Infinitive V to work, to write	Past Form V <sub>2</sub> worked, wrote	Participle II V <sub>3</sub> worked, written	Participle I Ving (V <sub>4</sub> ) working, writing

#### Ex.5. Distinguish carefully the correct pronunciation of the following regular verbs:

[d]	[t]	[ɪd]
carry – carried center – centered examine – examined station – stationed love – loved control – controlled	work – worked develop – developed reduce – reduced notice – noticed focus – focused watch – watched	protect – protected divide – divided separate – separated treat – treated include – included found – founded

#### Ex.6. Name the four verb-forms:

**A.** include; inform; provide; reduce; ratify; define; prepare; fill; examine; study; fulfill; prescribe; protect.

**B.** take; get; write; go; read; grow; learn; have; make; begin; come; feel; give; hear; keep; put; spend; think.

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.7. Read VOCABULARY and memorize new words.**

**Ex.8. Compose 3-4 sentences using the words of VOCABULARY.**

**Ex.9. Insert the missing letters:**

T\_mor; tr\_nk; \_nkle; superf\_cial; abdom\_n; el\_ow; gir\_le; \_rist; lim\_; divi\_ion; refe\_; pelvi\_; t\_orax; he\_rt; l\_ver; st\_mach; kidn\_y; l\_ng; \_ntestine; sple\_n.

**Ex.10. Read the following words:**

Pelvic; thigh; forearm; shoulder; girdle; approach; limb; thorax; superficial; chest; trunk; wrist; division; elbow; abdomen; stomach; intestine; knee.

**Ex.11. Translate the following words into Ukrainian:**

Pelvic; thorax; wrist; elbow; hip; shoulder; leg; knee; superficial; limb; forearm; girdle; quadrant; pectoral; ankle; lower; associated; clinician.

**Ex.12. Read the following text:**

### BODY REGIONS

The body is commonly divided into several regions. They are the head, trunk, and limbs.

The head is divided into the cranial and the facial parts. The facial bones form the structure of the face. The forehead, the temples, eyes, eyebrows, the cheeks, the cheekbones, nose, oral cavity and chin compose the face.

The upper limb (or extremity) is divided into the arm, elbow, forearm, wrist, and hand. The arm extends from the shoulder to the elbow, and the forearm extends from the elbow to the wrist. The upper limb is attached to the body by the shoulder, or pectoral girdle (the bony structure by which the limbs are attached to the body). The lower limb is divided into the thigh, knee, leg, ankle, and foot. The thigh extends from the hip to the knee, and the leg extends from the knee to the ankle. The lower limb is attached to the body by the hip, or pelvic girdle. Note that the terms arm and leg, contrary to popular usage, refer only to a portion of the respective limb.

The trunk can be divided into the thorax (chest), abdomen (region between the thorax and pelvis), and pelvis (the inferior end of the trunk, associated with the hips). The major organs are located in the trunk, such as: the heart, the lungs, the stomach, the liver, the spleen, the large and small intestines, the kidneys, the gallbladder, and bladder.

The abdomen is often subdivided superficially into four quadrants. They include the upper right, upper left, lower right, and lower left quadrants. The four-quadrant approach is commonly used by clinicians to describe the location of some organs or of a clinical problem such as pain or a tumor.

**Ex.13. Translate the following words into English:**

Поділ, розподіл; лицьова частина; тулуб; черевна порожнина; пояс; передпліччя; коліно; гомілка; належати; тазовий; зап'ясток; нижня кінцівка; плече; лежачий, розташований; серце; печінка; селезінка; кишківник; сечовий міхур; легені; відповідний.

**Ex.14. Translate the text "Body Regions" into Ukrainian.**

**Ex.15. Insert the missing words:**

1. The \_ is divided into several regions. 2. The upper limb is divided into the arm, \_, and hand. 3. The upper limb is attached to the body by the \_. 4. The lower limb is divided into the \_, leg, and foot. 5. The lower limb is attached to the body by the \_ . 6. The \_ can be divided into the thorax, abdomen, and pelvis. 7. The abdomen is often subdivided superficially into four \_ . 8. The four-quadrant \_ is commonly used by clinicians to describe the location of underlying \_ or of a clinical problem such as pain or a tumor.

**Ex.16. What is it:**

Arm.                                      Thorax.  
Forearm.                                      Abdomen.  
Thigh.                                      Pelvis.  
Leg.

**Ex.17. Organize the information of the text in table:**

Upper limb:		Head:	
Lower limb:		Trunk:	

**Ex.18. Answer the questions:**

1. What regions is human body divided into? 2. What parts is the upper limb divided into? 3. What parts does the lower limb consist of? 4. What girdle connects the upper limb with the trunk? 5. What girdle connects the lower limb with the trunk? 6. What parts is the trunk divided into? 7. What internal organs are located in the trunk?

**Ex.19. Retell the text "Body Regions".**

**Ex.20. Read the following words with their translation and compose your own sentences:**

<b>sternal</b> [ˈstɛwɪnəl] грудинний, що належить до грудини	<b>antebrachial</b> [ˈæntɪˈbreɪkiəl] такий, що належить до передпліччя
<b>brachial</b> [ˈbreɪkiəl] плечовий	<b>cephalic</b> [ˈsɛfəlɪk] головний
<b>femoral</b> [ˈfemərəl] стегновий	<b>cervical</b> [ˈsɛvɪkəl] шийний
<b>axillary</b> [ˈæksɪləri] пахвинний	<b>carpal</b> [ˈkɑːpəl] кистьовий, зап'ястний
<b>genital</b> [ˈdʒenɪtəl] статевий, що належить до статевих органів	<b>manual</b> [ˈmænjʊəl] ручний
<b>pubic</b> [ˈpjʊbɪk] лобковий	<b>digital</b> [ˈdɪdʒɪtəl] пальцевий
<b>acromial</b> [ˈækromɪəl] акроміальний, належачий до латеральної кінцівки лопатки	<b>geniculate</b> [dʒɪˈnɪkjʊleɪt] колінний
<b>cubital</b> [ˈkjʊbɪtəl] ліктьовий	<b>crural</b> [ˈkrʊərəl] що належить до гомілки
	<b>tarsal</b> [ˈtɑːsəl] заплесновий
	<b>pedal</b> [ˈpedl] ножний, що належить до стопи

**Ex.21. Add the missing words:**

STRUCTURE	REGIONS
mouth	oral
armpit	
neck	
abdomen	
hip	
shoulder	
thigh	
leg	
arm	

**Ex.22. Complete the following dialogue:**

- What regions is human body divided into?
- Human body \_ .
- What is the upper limb divided into?
- The upper limb is divided into \_ .
- What is the lower limb divided into?
- The lower limb \_ .
- What does the trunk consist of?
- The trunk consists of \_ .

**Ex.23. Reproduce the similar dialogue.**

**Ex.24. Read the following text:**

**TRUNK**

The trunk contains three large cavities, the thoracic cavity, the abdominal cavity, and the pelvic cavity. The thoracic cavity contains the trachea, esophagus, heart and lungs. It is surrounded by the rib cage and is separated from the abdominal cavity by the muscular diaphragm.

The trachea, or windpipe, is a membranous tube that consists of connective tissue. The trachea connects the larynx to the bronchi. The esophagus is that portion of the digestive tube that extends between the pharynx and the stomach. It transports food from the pharynx to the stomach. The heart is between the lungs in the space within the mediastinum. It is a muscular organ consisting of four chambers. The heart is responsible for the circulation of the blood. The lungs are the principal organs of respiration. Each lung is conical in shape. The right lung is larger than the left. The right lung has three lobes, and the left one has two lobes.

There is no physical separation between the abdominal cavity and pelvic cavity. The abdominal cavity is bounded by the abdominal muscles and contains the stomach, intestines, liver, spleen, pancreas, and kidneys. The pelvic cavity is a small space enclosed by the pelvis and contains the urinary bladder, part of the large intestine, and internal reproductive organs.

The stomach is an enlarged segment of the digestive tract in the left portion of the abdomen. The stomach wall has many glands from which acid and enzymes are released into the stomach and are mixed with ingested food. The small intestine consists of three portions. The entire small intestine is approximately 6 m long. The small intestine is the site where the greatest amount of digestion and absorption occurs. The major functions of large intestine are secretion and absorption. The liver stores and processes nutrients, and produces blood components. The liver consists of two major and two minor lobes. The spleen detects and responds to the foreign substances in the blood and acts as a blood reservoir. It is located on the left side in the extreme superior, posterior corner of the abdominal cavity. The pancreas lies along the small intestine and the stomach. The kidneys are bean-shaped organs. They remove waste products from the blood, play a major role in controlling

blood concentration, and control the red blood cell production and vitamin D metabolism. The kidneys are the major excretory organs in the body.

The urinary bladder is a hollow muscular container. The size of bladder is dependent on the presence or absence of urine. The function of bladder is to store urine. Unlike most organ systems, the reproductive systems are very different in male and female. But the internal reproductive organs are located in the pelvic cavity and many of the hormones are the same in the male and female, even though their functions may be quite different.

**thoracic** [TO:'rɒsɪk] грудинний

**abdominal** [xɒ'dɒmɪn(ə)l] абдомінальний, черевний

**trachea** [trə'ki:lq; 'treɪkɪlq] трахея

**esophagus** [ɪ'sɒfəgəs] стравохід

**rib** ['rɪb] ребро

**larynx** ['lærɪŋks] гортань

**mediastinum** ['mɪ:dlə'stəɪnəm] середостіння

**respond** [rɪ'spɒnd] реагувати

**lobe** [ləʊb] частка

**acid** ['æsɪd] кислота

**enzyme** ['enzəɪm] фермент, ензим

**release** [rɪ'li:s] звільняти, виділяти

**ingest** [ɪn'gest] ковтати, проковтнути

**digestion** [dɪ'gestʃən] травлення, травлення їжі

**detect** [dɪ'tekt] виявляти, помічати

**blood** [blʌd] кров

**excretory** [eks'kri:tɔ:ri] вивідний, видільний, екскреторний

**Ex.25. Translate the following words and word-combinations into English:**

Реагувати; тулуб; звільняти, виділяти; глотка, гортань; абдомінальний, черевний; фермент, ензим; грудинний; кислота; серце; ковтати, проковтнути; шлунок; кишечник; таз; травлення їжі; селезінка; порожнина; підшлункова залоза; трахея; грудна клітка; стравохід; виявляти, помічати; печінка; легені; середостіння; нирка.

**Ex.26. Translate the text "Trunk" into Ukrainian.**

**Ex.27. Answer the following questions:**

1. What cavities are located in the trunk? 2. What principal organs are located in the thoracic cavity? 3. What is trachea? 4. Where is esophagus located? 5. What is the heart responsible for? 6. What are the lungs? 7. What is the difference between the right and the left lungs? 8. What organs of the abdominal cavity do you know? 9. What is the enlarged segment of the digestive tract? 10. What is the function of the stomach? 11. What is the small intestine? 12. What is the function of the liver? 13. What organs are located in the pelvic cavity?

**Ex.28. Name the inner organs and complete the following table:**

Thoracic cavity	Abdominal cavity	Pelvic cavity
lungs	stomach	

**Ex.29. Insert the missing words:**

The trunk \_ three large cavities, the thoracic cavity, the abdominal cavity, and the \_ cavity. The thoracic cavity contains the trachea, \_ , \_ and lungs. It is surrounded by the rib cage and is separated from the \_ cavity by the muscular diaphragm.

The abdominal cavity is bounded by the abdominal muscles and contains the \_ , intestines, liver, \_ , pancreas, and kidneys. The stomach is an enlarged segment of the \_ tract. The small \_ is the site where the greatest amount of digestion and absorption occurs. The major functions of large \_ are secretion and absorption. The liver stores and processes nutrients, and produces \_ components.

The pelvic cavity is a small space enclosed by the \_ and contains the urinary bladder, part of the large intestine, and internal \_ organs. The urinary \_ is a hollow muscular container. The function of \_ bladder is to store urine. The reproductive systems are very different in \_ and female.

**Ex.30. Translate the following sentences into English:**

Тіло людини поділяється на кілька частин: голова, тулуб, верхні та нижні кінцівки. Верхня кінцівка поділяється на плече, передпліччя, зап'ясток та кисть. Верхня кінцівка приєднується до тулуба за допомогою плечового поясу. Нижня кінцівка складається зі стегна, гомілки, щиколотки та стопи. Вона прикріплюється до тулуба за допомогою тазового поясу. Тулуб поділяється на грудну клітку, черевну порожнину та таз.

**OVERVIEW**

The body is divided into several regions. They are the head, trunk, and limbs. The head is divided into the cranial and the facial parts. The upper limb is divided into the arm, elbow, forearm, wrist, and hand. The arm extends from the shoulder to the elbow, and the forearm extends from the elbow to the wrist. The upper limb is attached to the body by the shoulder. The lower limb is divided into the thigh, knee, leg, ankle, and foot. The thigh extends from the hip to the knee, and the leg extends from the knee to the ankle. The lower limb is attached to the body by the hip, or pelvic girdle. The trunk is divided into chest, abdomen and pelvis. The principal organs of the trunk are: the heart, the lungs, the stomach, the liver, the spleen, the large and small intestines, the kidneys, the gallbladder, and bladder.

**Lesson 6  
Human Head Anatomy**

**VOCABULARY**

<b>cranium</b> ['kreɪnɪləm] череп	<b>orbicular</b> [O:'bɪkjʊlə] круговий, коловий
<b>brain</b> [breɪn] мозок	<b>eyelid</b> ['aɪlɪd] віко
<b>parotid</b> [pə'ɒtɪd] привушний	<b>corrugator</b> [kɒru'gɛltə] м'яз, що викликає зморщування шкіри
<b>cavity</b> ['kævɪtɪ] порожнина	<b>chin</b> [tʃɪn] підборіддя
<b>sublingual</b> [sʌb'ɪlɪŋgw(ə)l] під'язиковий	<b>masseter</b> [mæ'sɪ:tə] жувальний
<b>anterior</b> [æ'nɪtɪərɪəl] передній	<b>bound</b> [baʊnd] межувати, слугувати межою
<b>cutaneous</b> [kjʊ(:)'teɪnjəs] шкірний	<b>temporal</b> ['temp(ə)r(ə)l] скроневий
<b>superior</b> [sju:'pɪərɪəl] верхній, розташований вище	<b>fauces</b> [fə:'sɪ:z] горло, зів
<b>nonverbal</b> ['nɒn'vɜ:bəl] невербальний (безсловесний)	<b>medial</b> ['mi:dl̩] медіальний
<b>inferior</b> [ɪn'fɪərɪəl] нижній	<b>pterygoid</b> [tɪ'rɪɡɔɪd] крилоподібний
<b>confine</b> [kən'faɪn] обмежувати	<b>palatine tonsil</b> [pælətəɪn 'tɒnsɪl] піднебінний мигдалик
<b>posterior</b> [pɒs'tɪərɪəl] задній	<b>hyoid</b> ['haɪɔɪd] під'язиковий
<b>contribute</b> [kən'trɪbjʊt] співвідноситися	<b>palate</b> [pælət] піднебіння
<b>furrow</b> [fʌrə] укриватися зморшками	<b>intrinsic</b> [ɪn'trɪnsɪk] внутрішній
<b>occipito-frontal</b> [O'ksɪpɪtO'frʌntəl] потилично-лобовий	<b>salivary gland</b> ['sælɪvərɪ 'glænd] слинна залоза
<b>temple</b> [tempəl] скроня	<b>extrinsic</b> [eks'trɪnsɪk] зовнішній
	<b>vault</b> [vɔ:lt] склепіння

## RULES OF READING

ee	[i:]	tree see
oo	[u:]	tool але: blood [A]

### Ex.1. Read the following words:

Week, keep, been, need, feel, agree, spleen, feet, proceed, deep, three, free, cheese, asleep, cook, proof, too, room, choose, good, look, smooth, stool, teaspoonful.

## GRAMMAR:

### Ex.2. Familiarize yourself with the data of the following table: IMPERSONAL SENTENCES

It is a pity.	Шкода.
It is getting cold.	Стає холодно.
It seems that you are ill.	Певно, ви хворі.

### Ex.3. Translate the following sentences into Ukrainian:

1. It is time to begin our investigation. 2. It is difficult to do this work. 3. It will be useful to read about the structure of the digestive system. 4. It was important to learn the physiology of various organ systems.

## READING AND DEVELOPING SPEAKING SKILLS

### Ex.4. Read VOCABULARY and memorize new words.

### Ex.5. Compose 2-3 sentences using the words of the VOCABULARY.

### Ex.6. Read the following words and translate them into Ukrainian:

Cranium; forehead; chin; tonsil; cheek; eyelid; cheekbone; temporal; salivary; gland; palatine; bound; cavity; anterior; superior; masseter; confine; intrinsic; orbicular; immediately; hyoid; eyebrow; palate; contribute; subcutaneous; tongue; extrinsic; temple.

### Ex.7. Match the medical term with its translation:

parietal [pɑ'ri:əl]	скроневий
temporal [tɛmpərə]	носова пазуха
occipital [ɒk'sɪpɪt(ə)]	ковадло, коваделко
ethmoid [e'tmɔɪd]	стремено, стремінце
zygomatic [zɪgə'mɒtɪk]	потиличний
palatine [pə'læɪn]	молоточок
lacrimal [lækrɪ'mæl]	піднебінний
nasal concha [nə'sɒnkə]	вличний
vomer [vɒmə]	слізний
auditory ossicle [ɔ:dɪtɔri 'ɒsɪkl]	леміш
malleus [mə'lɪəs]	слухова кісточка
	гратчастий
	тім'яний

incus ['ɪŋkʌs]

stapes ['steɪpəl:z]

**Ex.8. Read the following text:**

**Head**

The head is divided into the cranial and the facial parts. The skull is composed of 28 separate bones organized into the following groups: the cranial vault, the auditory ossicles, and the facial bones. The cranial vault consists of 8 bones that surround and protect the brain. They include the parietal, temporal, frontal, occipital, sphenoid, and ethmoid bones.

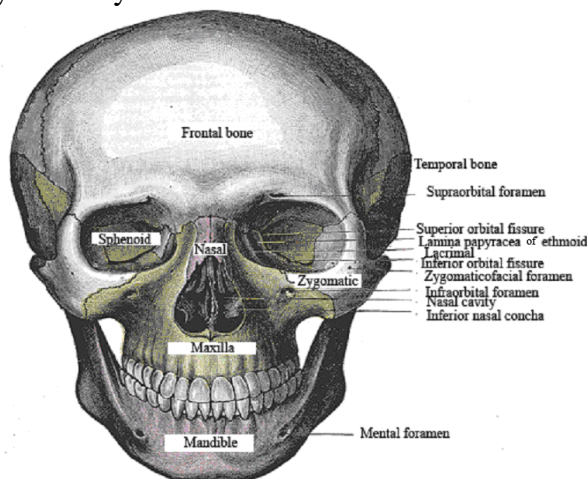
The six auditory ossicles, which function in the hearing, are located inside cavities of the temporal bones and cannot be observed unless the temporal bones are cut open.

The facial bones form the structure of the face in the anterior skull but do not contribute to the cranial vault. They are the maxilla (two), mandible (one), zygomatic (two), palatine (two), nasal (two), lacrimal (two), vomer (one), and inferior nasal concha (two) bones. The frontal and ethmoid bones, which are the part of the cranial vault, also contribute to the face. The forehead, the temples, eyes, eyebrows, the cheeks, the cheekbones, nose, oral cavity and chin compose the face.

The oral cavity is bounded by the lips anteriorly, the fauces posteriorly, the cheeks laterally, the palate superiorly, and a muscular floor inferiorly. In the oral cavity of an adult there are 32 permanent teeth, hard and soft palates, palatine tonsils, salivary glands, and a tongue. The types of the teeth are incisors, canines, premolars, and molars. Every tooth consists of a crown, a neck, and a root. The root is composed of dentine. Within the dentine of the root is the pulp cavity, which is filled with blood vessels and nerves. The crown is dentine covered by enamel. The hard and soft palates are the roofs of the oral cavity. Salivary glands produce serous and mucous secretions. The three pairs of large salivary glands are the parotid, submandibular, and sublingual.

The facial bones provide protection for major sensory organs located in the face such as the eyes, nose, and tongue. The person sees with eyes, breathes and smells with nose, taste with tongue, and hear with ears.

The skeletal muscles of the face are cutaneous muscles attached to the skin. In humans in whom facial expressions are important components of nonverbal communication, cutaneous muscles are confined primarily to the face and neck. Several muscles act on the skin around the eyes and eyebrows and furrow the skin of the forehead. They are: the occipitofrontal muscles, the



*The Skull From the Front*

orbicular muscles of eyes, the elevator muscles of the upper eyelids, the corrugator muscles and others. Several muscles function in moving the lips and the skin surrounding the mouth. The muscles of mastication (the masseter, temporal, medial pterygoid, and lateral pterygoid muscles) and the hyoid muscles move the mandible. The tongue consists of a mass of intrinsic muscles and extrinsic muscles, which change the shape of the tongue and move it. Hyoid muscles can depress the jaw and assist in swallowing. Six muscles with their origins on the orbital bones insert on the eyeball and cause it to move within the orbit.

**Ex.9. Translate the following words and word-combinations into English:**



Череп; шкірний; обмежувати; співвідноситися; порожнина; безпосередньо; брова; чоло; жувальний; потилично-піднебінний; підборіддя; скроня; круговий; піднебіння; внутрішній; зовнішній; язик; віко; щока; піднебінний мигдалик; під'язиковий; слинна залоза; вилиця; межувати, слугувати межею; скроневий; горло, зів.

**Ex.10. Translate the text "Head" into Ukrainian.**

**Ex.11. Answer the questions:**

1. How many bones does the skull consist of? 2. What groups are the bones of the skull organized into? 3. Where are the auditory ossicles located? 4. How many parts are the bones of the skull divided into? What are they? 5. How many bones does the cranial vault consist of? What are they? 6. What do the facial bones form? 7. What facial bones do you know? 8. What bones which are the parts of the cranial vault also contribute to the face? 9. What do the facial bones provide? 10. What are there in the oral cavity? 11. What skeletal muscles of the face do you know?

**Ex.12. Insert the missing words:**

1. Bones of the skull are organized into the following groups: the auditory \_\_, the cranial vault, and the facial bones. 2. The bones of cranial vault include the parietal, \_\_, frontal, occipital, sphenoid, and ethmoid bones. 3. The facial bones form the structure of the face in the \_\_ skull. 4. The facial bones are the \_\_, mandible, zygomatic, \_\_, nasal, lacrimal, vomer, and inferior nasal concha bones. 5. The frontal and ethmoid bones also \_\_ to the face. 6. The forehead, the temples, eyes, \_\_, the cheeks, the \_\_, nose, oral cavity and chin compose the face.

**Ex.13. Skim through the data of the following table and answer the questions:**

1. What bones of the cranial vault are paired? 2. What bones of the cranial vault are unpaired? 3. What bones of the face are unpaired? 4. What bones of the face are paired? 5. What groups are the bones of the skull divided into? 6. What bones of the cranial vault do you know? 7. What are the auditory ossicles?

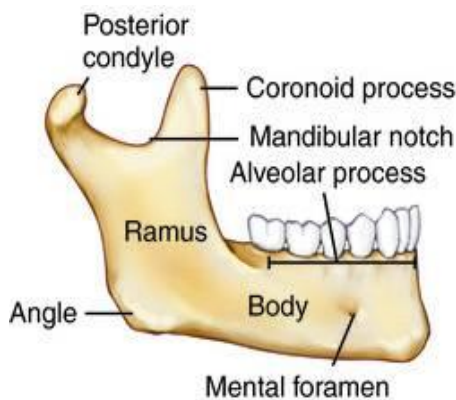
BONES		NUMBER
Skull		
<i>Cranial vault</i>		
Paired	Parietal	2
	Temporal	2
Unpaired	Frontal	1
	Occipital	1
	Sphenoid	1
	Ethmoid	1
<i>Face</i>		
Paired	Maxilla	2
	Zygomatic	2
	Palatine	2
	Nasal	2
	Lacrimal	2
	Inferior nasal concha	2
Unpaired	Mandible	1
	Vomer	1
<i>Auditory Ossicles</i>		
	Malleus	2
	Incus	2
	Stapes	2

**Ex.14. Match the following terms with their meanings:**

1. cheek	1. hard, conical structure set in the alveoli of the upper or lower jaws, used in mastication and assists in articulation.
2. nose	2. muscular organ occupying most of the oral cavity when the nose is closed.
3. eyebrow	3. one of two muscular folds with an outer mucosa having a stratified squamous epithelial surface layer; they form the anterior border of the mouth.
4. eyelash	4. movable fold of the skin in front of the eyeball.
5. eyelid	5. eight skull bones that surround and protect the brain.
6. cranial vault	6. hair at the margins of the eyelids.
7. lip	7. short hairs on the bony ridge above the eyes.
8. tongue	8. visible structure that forms a prominent feature of the face.
9. tooth	9. side of the face forming the lateral wall of the mouth.

**Ex.15. Read the following text, divide it into logical parts and entitle them:****The skull**

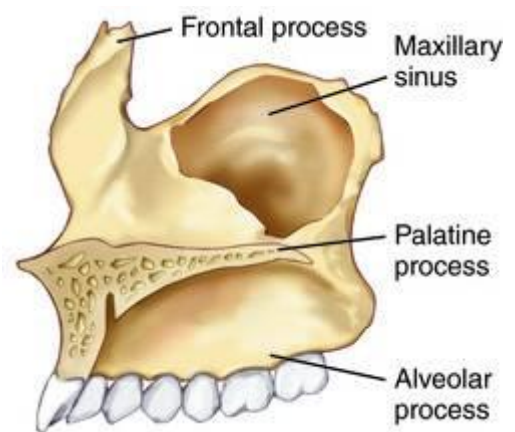
The lower jaw has its own separate bone which is called 'the mandible', which is U-shaped and stretches from one ear, down to the chin area and then back up again to the other ear. It is joined to the upper part of the head around the ear region by two jaw joints (called 'temporomandibular joints'). If you rest your fingers on the skin just in front of your ears, and then open and close your mouth, you can feel the jaw joints moving. The mandible has names for its different parts, as follows:



The **body** of the mandible is the middle section of the U-shape which supports the lower teeth. The **condyle** is the rounded end of bone that fits into the movable joint between the mandible and the cranium (the part of the skull which encloses the brain). There is one on each side of the mandible. The **coronoid** process is the name for a triangular projection from the mandible which joins one of the chewing muscles to the cranium. There is one on each side of the mandible. The ascending **ramus** is the flatter, straighter part on the sides of the lower jaw which joins the body of the mandible to the coronoid processes and the condyles.

The maxilla is a name for the upper jaw, and it is made up of several bones stuck (or fused) together, and sits in front of and just below the cranium. It is attached to the cranium and forms the cheeks, the nose, and the roof of the mouth.

The maxillary **antrum** or sinus is the name for the air filled space that sits just under the cheekbone, and just above the roof of the mouth. There is one on each side of the face, either side of the nose. The anterior **nasal spine** is a bit of bone which protrudes from the maxilla at the lower end of the nose. The **zygomatic process** is a curved piece of bone which extends outwards from the maxilla and forms part of the cheekbone. The **palate** is the roof of the mouth, it separates the nose and the mouth: the hard part is called the 'hard palate' and is towards the front of the mouth, and the softer part at the back near the throat is the soft palate.



The temporomandibular joint (TMJ) is the movable joint between the mandible (lower jaw bone) and part of the cranium called the temporal bone. It is a complicated joint and the two hard bone surfaces are separated by a circular piece of softer cartilage which acts like a cushion. The lower jaw moves up and down, sideways and forwards. This joint is in constant use during chewing, swallowing, talking, and laughing. Some of these movements involve rotation of the joint and some are sliding movements.

A foramen is an opening or hole which lets nerves and blood vessels pass through bone. The plural of foramen is foramina. The **mental foramen** is on the body of the mandible. Nerves and blood vessels which travel to the lower lip pass through this. The **mandibular** or inferior dental foramen is on the ascending ramus. A nerve called the inferior dental nerve and blood vessels which go to the lower teeth pass through this. The **incisive foramen** is at the front of the palate (the roof of the mouth). Nerves called incisive nerves and the blood vessels which supply the front of the palate pass through this.

**condyle** ['kɒndl] мицелок

**coronoid process** ['kɒrɒnɔɪd] кљововидний  
[ˈprəʊses] відросток

**ramus** [reɪˈmʌs] гілка, відгалуження

**foramen** [fə'reɪmən] отвір

**nasal spine** ['neɪz(ə)l spaɪn] носовий гребінь

**mental** ['ment(ə)l] підборідний

**incisive** [ɪn'saɪsɪv] різцевий; що стосується різців

## OVERVIEW

The head is divided into the cranial and the facial parts. The skull is composed of 28 separate bones organized into the following groups: the cranial vault, the auditory ossicles, and the facial bones. The cranial vault consists of 8 bones that protect the brain. They include the parietal, temporal, frontal, occipital, sphenoid, and ethmoid bones. The facial bones form the structure of the face in the anterior skull but do not contribute to the cranial vault. They are the maxilla, mandible, zygomatic, palatine, nasal, lacrimal, vomer, and inferior nasal concha bones. The frontal and ethmoid bones also contribute to the face. The forehead, the temples, eyes, eyebrows, the cheeks, the cheekbones, nose, oral cavity and chin compose the face. In the oral cavity there are 32 permanent teeth, hard and soft palates, palatine tonsils, salivary glands, and a tongue. The types of the teeth are incisors, canines, premolars, and molars.

## Lesson 7 Oral Cavity

### VOCABULARY

**buccal** ['bʌk(q)l] щічний  
**accessory** [ək'sesqri] допоміжний  
**digestion** [daɪ'dʒestʃn] травлення  
**chewing** ['tʃu:ɪŋ] жування  
**mastication** [ˈmæstɪ'keɪʃn] жування  
**swallowing** ['swɒlqʋɪŋ] ковтання  
**gingiva** [dʒɪŋ'gɪvə] ясна  
**palate** [ˈpælɪt] піднебіння  
**roof** [ru:f] склепіння  
**pharynx** [ˈfærɪŋks] глотка  
**rugae, pl** ['ru:dʒi:] складки  
**uvula** [ˈju:vʌlʌ] язичок

**socket** ['sɒkɪt] лунка зуба  
**projection** [prɒ'dʒekʃn] виступ, виросток  
**papillae, pl** [pə'pɪli:] сосочки  
**maxilla** [mæksɪ'lɪə] верхня щелепа  
**mandible** [ˈmændɪbəl] нижня щелепа  
**release** [rɪ'li:s] виділяти, секретувати  
**saliva** [sə'lɑ:və] слина  
**enzyme** ['enzɑ:m] ензим, фермент  
**series** ['sɪəri:z] ряд, серія  
**speech** [spi:tʃ] мовлення  
**mucous** ['mju:kəs] слизовий  
**membrane** ['membreɪn] оболонка

### RULES OF READING

ai	[eɪ]	pain
ou	[aʊ]	out house але: trouble [trʌbl] cough [kɒ:f]
ea	[i:]	meat sea

#### Ex. 1. Read the following words:

Painful, complaint, waist, wait, mouth, about, round, count, without, outside, treat, treatment, measles, weakness, breathe, read, disease, please, mean, each, speak.

### GRAMMAR:

#### Ex. 2. Familiarize yourself with the data of the following table:

#### SIMPLE TENSES

(Affirmative Form, Active Voice)

Tense	Form of the Verb	Example
<b>Present Simple</b>	<b>V</b> (the third person singular + <b>-s,-es</b> )	I (you, we, they) <b>write</b> He (she, it) <b>writes</b>
<b>Past Simple</b>	<b>V2</b>	I (we) He (she, it) } <b>worked (wrote)</b> They (you)
<b>Future Simple</b>	<b>will (shall: after I or we) + V</b>	I (we) <b>shall</b> } <b>write</b> He (she, it) <b>will</b> } They (you) <b>will</b>

#### Ex. 3 Put the following verbs into Past and Future Simple Tenses:

Prevent; strengthen; increase; comprise; provide; have; take; do; go; make; leave.

**Ex. 4. Read and translate the following sentences:**

1. I get up at 7 o'clock. 2. He brushes his teeth. 3. This student learns the main sciences. 4. She often goes to the hospital. 5. We came from Spain. 6. I live in Oxford. 7. I saw you yesterday. 8. I spoke to him. 9. I'll give you my book tomorrow. 10. The Health Network will comprise a great number of clinics. 11. This University trains medical specialists. 12. Your doctor will write a prescription for you. 13. Some people died of heart diseases. 14. On average Ukrainian men live to the age of 74.

**Ex. 5. Tell about yourself and your friend(s) in Present, Past and Future Simple Tenses using the following table:**

Every morning Yesterday Tomorrow	to get up at 6 o'clock to do morning exercises to wash with cold water to brush one's teeth to dress to comb one's hair before a looking-glass to make the bed to have breakfast to leave the room to go to the Academy to take a trolleybus to go on foot.
Every day Some days ago In two weeks	to come to the Academy by half past 8. to be present at the lectures and practical classes. to make abstracts at the lectures. to read texts at the English lessons. to do exercises. to work in laboratory. to go home.
In the evening Next month Last week	to prepare for the classes to do some exercises to read medical literature to make abstracts to visit friend to watch TV to go to bar to go to bed

**Ex. 6. Put the verbs into correct tense-forms and translate the sentences into Ukrainian:**

1. Some clinics (to provide) specialized care. 2. This doctor (to treat) the patients with chronic diseases. 3. Marry (to visit) the polyclinic yesterday. 4. This physician (to examine) many patients next Monday. 5. She (to take) the course of treatment in the rest home last month. 6. Medical specialists (to pay) much attention to the health protection of mother and child. 7. They (to build) new prenatal clinics in Ukraine in 5 years. 8. Mike (to need) periodic psychiatric attention. 9. Medical Institute (to train) future doctors. 10. As a rule doctors' training (to take) six years.

**Ex. 7. Find in the text "Oral cavity" sentences in Simple Tenses, read them, and translate into Ukrainian.**

## READING AND DEVELOPING SPEAKING SKILLS

**Ex. 8. Read VOCABULARY and memorize new words.**

**Ex.9. Insert the missing letters:**

Ma\_illa, man\_ible, sw\_llowing, sk\_ll, te\_th, c\_eeks, gl\_nd, g\_m, uv\_la, mu\_ous, pap\_llae, so\_ket, enz\_me, pha\_ynx, ch\_wing.

**Ex.10. Read the following words and translate them into your native language:**

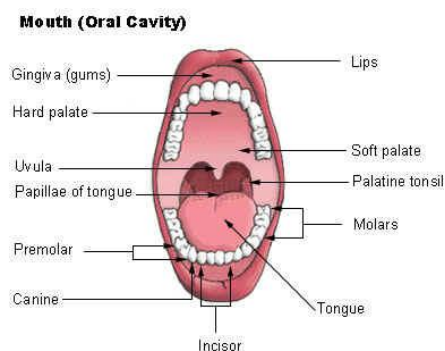
Oral cavity, digestion, chewing, swallowing, mastication, maxilla, mandible, gums, hard palate, soft palate, uvula, saliva, salivary glands, parotid gland, submandibular gland, sublingual gland, tongue, mucous membrane.

**Ex.11. Match the following English word combinations with the Ukrainian ones:**

- |                                 |                                |
|---------------------------------|--------------------------------|
| 1. the opening to the cavity    | a) хімічний склад їжі          |
| 2. the roof of the mouth        | b) сполучна тканина            |
| 3. connective tissue            | c) отвір до порожнини          |
| 4. the floor of the oral cavity | d) склепіння ротової порожнини |
| 5. the chemical nature of food. | e) дно ротової порожнини       |

**Ex.12. Read and translate the following text:**

### Oral cavity



The oral cavity (mouth) is sometimes called the buccal cavity. It contains both primary and accessory organs of digestion. The mouth is designed to support chewing, swallowing and speech. Two rows of teeth are supported by facial bones of the skull, the maxilla above and the mandible below. Teeth are surrounded by gingiva, or gums. The gums are made of fleshy tissue and surround the sockets in which the teeth are found. In addition to the teeth, other structures that aid chewing are the lips, cheeks, tongue, hard palate, soft palate, and floor of the mouth.

The cheeks form the walls of the oval-shaped mouth cavity, while the lips form the opening to this cavity. The hard palate forms the anterior portion of the roof of the mouth. The muscular soft palate lies posterior to it and separates the mouth from the pharynx (throat). Rugae are the irregular ridges in the mucous membrane covering the anterior portion of the hard palate. A small, soft tissue, hanging from the soft palate, is called uvula. It is composed of connective tissue and muscle and aids in the production of sounds and speech.

The tongue extends across the floor of the oral cavity and is attached by muscles to the mandible. It moves food around during mastication and swallowing. The tongue is covered with a series of small projections called papillae which contain cell sensitive to the chemical nature of food. The functions of the tongue are swallowing, speech, taste and cleansing the mouth. There are three sets of salivary glands: the parotid, the submandibular and the sublingual glands. These glands secrete saliva for proper mixing of food and provide enzymes to start chemical digestion. Saliva is released

from the salivary glands through narrow ducts which carry the saliva into the mouth. The protective tissue of the oral cavity is called mucosa or mucous membrane.

**Ex.11. Translate the following words and word-combinations into English:**

Ротова порожнина, губи, щоки, ясна, язик, тверде піднебіння, м'яке піднебіння, язичок, нижня щелепа, верхня щелепа, слинні залози, слизова оболонка, привушна залоза, під'язична залоза, сполучна тканина, вузька протока.

**Ex.12. Insert the missing words:**

1. The oral cavity is sometimes called the \_\_\_\_\_ cavity. 2. The teeth are supported by \_\_\_\_\_ bones of the skull. 3. The lips form the \_\_\_\_\_ to the oral cavity. 4. The hard palate forms the \_\_\_\_\_ portion of the roof of the mouth. 5. The soft palate separates the \_\_\_\_\_ from the \_\_\_\_\_. 6. The tongue is attached by \_\_\_\_\_ to the mandible. 7. There are three sets of salivary glands: the parotid, the \_\_\_\_\_ and the sublingual glands.

**Ex.13. Answer the questions:**

1. What organs compose the oral cavity? 2. What bones are the teeth supported by? 3. What is the hard palate? 4. What does the soft palate separate? 5. What is uvula? 6. What is uvula composed of? 7. What is the tongue covered with? 8. What are the functions of the tongue? 9. What salivary glands do you know? 10. What is the function of saliva? 11. What is the protective tissue of the oral cavity?

**Ex.14. Insert prepositions or adverbs where necessary. Retell the text.**

**Soft tissues**

The skin ... the mouth, i.e. the red tissue covering the cheeks, floor of the mouth, palate and tongue etc., is called mucous membrane. It contains many tiny glands which contribute ... the lubricating and cleansing functions ... saliva. The space between the teeth and mucous membrane lining the cheeks and lips is called the *buccal sulcus*.

The soft palate is a flap ... soft tissue attached ... the back of the hard palate. Its function is to seal off the oral cavity ... the nasal cavity during swallowing in order to prevent food passing up ... the nose.

**Ex.15. Choose the anatomical terms from the box for the following definitions:**

1. A natural hollow place within the body. 2. The movable muscular structure attached to the floor of the mouth in most vertebrates (хребетні): it is an important organ in the ingestion of food, the perception of taste, and, in humans, the articulation of speech sounds. 3. Either of the two fleshy folds forming the edges of the mouth. 4. The lower jaw of a vertebrate. 5. In vertebrates, the upper jaw. 6. The thin, watery, slightly viscid (в'язка) fluid secreted by the salivary glands. 7. The roof of the mouth, consisting of a hard, bony forward part.

saliva, lips, tongue, mandible, cavity, maxilla, hard palate

**Ex.16. Read the text, give the plan of it.**

**Oral glands**

All *mammals* are well supplied with oral glands. There are *labial* glands of the lips, *buccal* glands of the cheeks, *lingual* glands of the tongue, and *palatine* glands of the palate. Besides these, there are larger paired salivary glands. The parotid gland, near each ear, the submaxillary or submandibular gland lies along the posterior part of the lower jaw; its duct opens well forward under the tongue. The sublingual gland lies in the floor of the mouth. Saliva is a fluid containing a mixture of all the oral *secretions*. It contains mucus, *proteins*, salts, and the enzymes. *Tonsils* are *spongy* lymphoid tissues at the back of the throat, composed mainly of lymphocytic cells held

together by *fibrous* connective tissue. There are three types of tonsils. The palatine tonsils, usually referred to as «the tonsils», are visible between the *arches* that extend from the uvula to the floor of the mouth. The *pharyngeal* tonsils, usually referred to as the *adenoids*, lie at the back of the throat. The lingual tonsils are on the upper surface of each side of the back of the tongue. The tonsils function to protect the pharynx and the remainder of the body from infectious organisms.

**Notes:**

**mammals** ['mæmFlz] ссавці

**labial** ['leɪbɪəl] губний

**palatine** ['pælɪtəɪn] піднебінний

**secretion** [sɪ'kri:ʃn] секреція

**protein** ['prəʊti:n] білок

**tonsil** ['tɒnsəl] мигдалик

**spongy** ['spʌndʒɪ] губчатий

**fibrous** ['faɪbrəs] фіброзний, волокнистий

**arch** [ɑ:tʃ] дуга

**pharyngeal** ['færɪn'dzi:əl] той, що стосується ГЛОТКИ

**adenoids** ['ædɪnɔɪds] аденоїди

**Overview**

The oral cavity is sometimes called the buccal cavity. It contains both primary and accessory organs of digestion. The mouth is designed to support chewing, swallowing and speech. Two rows of teeth are supported by the maxilla above and the mandible below. Teeth are surrounded by gums. Other structures that aid chewing are the lips, cheeks, tongue, hard palate, soft palate, and floor of the mouth. The hard palate forms the anterior portion of the roof of the mouth. The soft palate separates the mouth from the pharynx. The functions of the tongue are swallowing, speech, taste and cleansing the mouth. There are three sets of salivary glands: the parotid, the submandibular and the sublingual glands.

**Lesson 8**

**Tooth Anatomy**

**VOCABULARY**

**crowns** [kraʊn] коронка

**enamel** [ɪ'næm(ə)l] емаль

**dentine** ['denti:n] дентин

**cementum** [sɪ'mentəm] цемент

**pulp** [pʌlp] пульпа зуба

**canal** [kə'næl] канал

**apex** [eɪ'peks] верхівка

**foramen** [fə'reɪmən] отвір

**tissue** ['tɪʃu:, 'tɪʃju:] тканина

**core** [kɔ:] серцевина

**nutrient** ['nju:trɪənt] поживна речовина

**rod** [rɒd] стрижень

**underneath** [ʌndə'ni:t] під, нижче

**hole** [həʊl] отвір

**tip** [tɪp] кінчик

**tough** [tʌf] щільний, міцний, стійкий

**periodontal** [ˌperiɒdɒntəl] періодонтальний

**attachment** [ə'tætʃmənt] прикріплення

**layer** ['leɪə] шар

**sheath** [ʃi:θ] оболонка

**cushion** ['kuʃn] амортизатор, буфер

**jaw** [dʒɔ:] щелепа

**supply** [sə'plai] постачати

**resistant** [rɪ'zɪstənt] стійкий

**RULES OF READING**

ay	[eɪ]	day stay
----	------	-------------



au	[O:]	<b>August</b> <b>autocar</b>
aw	[O:]	<b>saw</b>
ow	[au]	<b>brown</b> <b>down</b>
ow	[qu]	<b>window</b> але: <b>now</b> [nau], <b>cow</b> [kau]
oa	[ou]	<b>coat</b> <b>load</b>
oi	[OI]	<b>oil</b> <b>boil</b>
oy	[OI]	<b>boy</b> <b>joy</b>
ew	[ju:]	<b>new</b> <b>few</b>

**Ex.1. Read the following words:**

Stay, X-ray, may, array, today, play, say, way, nausea, auscultation, cause, because, author, authority, daughter, jaw, saw, draw, withdraw, awful, law; know, knowledge, follow, below, powder, how, however, allow; throat, oath, goal, float, voice, ethmoid, sphenoid, join, destroy, employ; review, new.

**WORD-BUILDING**

**Ex.2. Familiarize yourself with the following material:**

**Suffixes of Noun:**

**-th** (denotes condition or phenomena)

death *смерть*

**-ment** (denotes condition or phenomena)

to govern *керувати* – government *керівництво*

to excite *збуджувати* – excitement *хвилювання, збудження*

**Ex.3. Read and translate the following words:**

**A.** Growth; childbirth; length; death.

**B.** Treatment; achievement; department; appointment; development; supplement; movement; establishment; requirement.

**GRAMMAR:**

**SIMPLE TENSES**

(Affirmative Form, Active Voice)

**Ex.4. Put the verbs into correct tense-forms and translate the sentences into Ukrainian:**

1. Your General Practitioner (to write) a prescription for you tomorrow. 2. The doctor (to send) him to a hospital last week. 3. This institution (to provide) free medical care for all the Americans over 65. 4. American medicine (to decide) the main scientific problems, as the fight against heart diseases, AIDS, and others. 5. M.D. Strazhesko (to describe) preclinical picture of myocardial infarction.

**READING AND DEVELOPING SPEAKING SKILLS**

**Ex.5. Read VOCABULARY and memorize new words.**

**Ex.6. Compose 2-3 sentences using the words of the VOCABULARY.**

**Ex.7. Insert the missing letters:**

Cro \_n, r\_ot, ne\_k, cem\_ntum, en\_mel, dent\_n, p\_lp, ves\_el, bl\_od, g\_m, can\_l, ap\_x, foram\_n, toot\_, tiss\_e.

**Ex.8. Read and translate the following text:**

**Tooth Anatomy**

Each tooth consists of three main parts – the crown, the neck and root. The **crown** is the visible part of the tooth; it is the portion that lies above the gum tissue. A protective layer called **enamel** covers the crown. The **neck** is the area of the tooth between the crown and the root. The **root** is the portion of the tooth that extends through the gum and into the bone of the jaw.

Every tooth consists of hard and soft tissues. The hard tissues are enamel, dentin, cementum. The soft tissue is the pulp. Enamel is the hardest material in your body and makes up the outside of your teeth, above the gum line. Dentin is the tissue that makes up the core of each tooth. Pulp is the living part of the tooth, located inside the dentin. It contains the nerve tissue and blood vessels that supply nutrients to the tooth. Cementum is located at the root of the tooth.

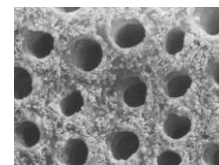
**Enamel**

Enamel is the substance that covers the crown of the tooth. It is very hard and quite resistant to mechanical and chemical attack. The enamel is made up of microscopic enamel rods. Each enamel rod is attached to the dentin underneath it.



**Dentin**

Dentin is the hard, yellow bone-like material that underlies the enamel and surrounds the entire nerve. It composes the bulk of the tooth, and is sensitive to touch and other stimuli. Dentine consists of dentinal tubules.



The dental **pulp** (the nerve of the tooth) is the soft center of the tooth. Pulp is composed of connective tissue, blood vessels, and nerves; it nourishes the dentin. A **root canal** is actually only a part of the dental pulp. Blood

vessels and nerves enter through a hole at the tip of each root. The tip of the root is called the apex, and the hole that allows the nerve tissue, with its blood vessels to enter the tooth is called the apical foramen. The apical foramen is simply the hole in the tip of the root where the nerve and all its accompanying blood vessels must enter the tooth.

The pulp has several functions, such as:

Sensory function - pain from trauma to the dentin and/or pulp, differences in temperature, and pressure are caused by stimulation of the pulp.

Formation of dentin - the pulp is responsible for the formation of dentin. In response to trauma, the pulp forms secondary dentin, also known as reparative dentin.

Nourishment - the pulp contains blood vessels that help to prevent the tooth from becoming brittle by keeping it moisturized and nourished.

**Cementum** is a layer of tough, yellowish, bone-like tissue that covers the root of a tooth. It helps hold the tooth in the socket. The cementum contains the periodontal membrane.

Cementum is to the root of a tooth as enamel is to the crown. Its main function is to act as an attachment layer for the periodontal ligament which is a soft tissue sheath that acts as a cushion between the bony socket and the tooth itself.

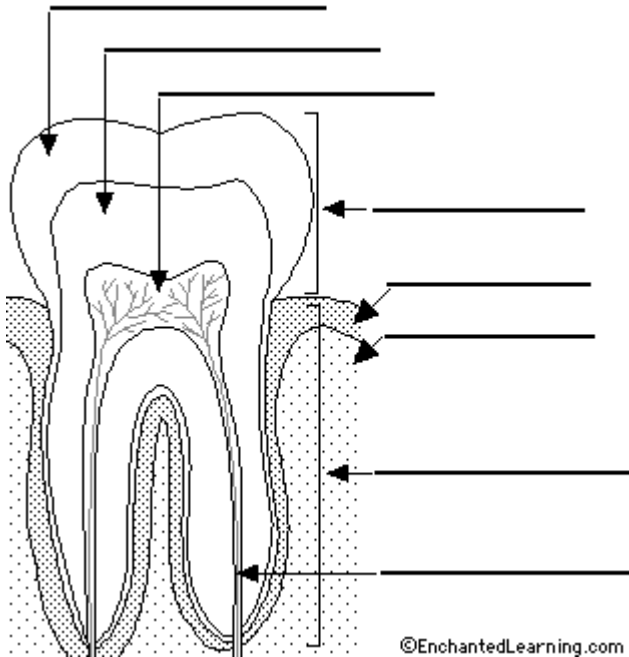
**Ex.9. Translate the following word-combinations into English:**

Видима частина зуба, над яснами, захисний шар, серцевина зуба, постачати поживні речовини, стійкий до механічних та хімічних пошкоджень, подразники, жити дентин, проходити через отвір, кінчик кореня, покривати корінь, утримувати зуб в ясеневій кишені.

**Ex.10. Answer the following questions:**

1. What main parts does each tooth consist of? 2. What is the crown? 3. What is enamel? 4. Where is the neck located? 5. What is the root? 6. What is the hardest material in your body? 7. What is located inside the dentin? 8. What does the pulp contain? 9. Where is cementum located? 10. What is the enamel made up of? 11. What does dentine consist of? 12. What is apex? 13. what is apical foramen? 14. What is the main function of cementum?

**Ex.11. Read the definitions, then label the tooth below:**



**Bone** - the hard supportive tissue in which the tooth's root is anchored.

**Crown** - the visible part of a tooth.

**Dentin** - the hard but porous tissue located under both the enamel (and cementum) of the tooth. Dentin is harder than bone.

**Enamel** - the tough, shiny, white outer surface of the tooth.

**Gum** - the soft tissue that surrounds the base of the teeth. Nerves and

**Blood Vessels** - nerves transmit signals, and blood vessels carry nutrients to the tooth - they run through the tooth's root within the pulp.

**Pulp** - the soft center of the tooth. The pulp contains blood vessels and nerves; it nourishes the dentin.

**Root** - the anchor of a tooth that extends into the bone of the jaw. The number of human tooth roots ranges from one to four.

**Ex.12. Familiarize yourself with the following data. Mind the pronunciation of the following words:**

**Incisor** [ɪn'saɪzə], **canine** ['keɪnaɪn], **cuspid** ['kʌspɪd], **bicuspid** ['bi:kʌspɪd], **premolar** ['pri:mɔːlə], **molar** ['mɔːlə].

**What Are the Different Types of Teeth?**

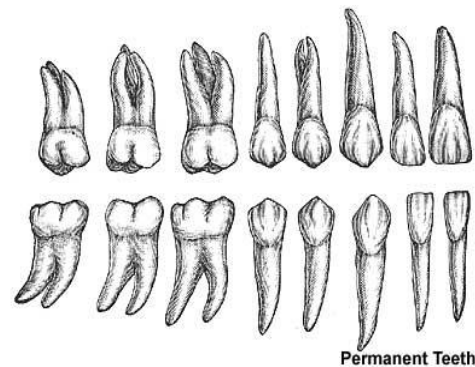
Every tooth has a specific job or function:

**Incisors**— the sharp, chisel-shaped front teeth (four upper, four lower) used for cutting food.

**Canines**— sometimes called cuspids, these teeth are shaped like points (cusps) and are used for tearing food.

**Premolars**— these teeth have two pointed cusps on their biting surface and are sometimes referred to as bicuspids. Premolars have a more flat chewing surface because they're meant for crushing food.

**Molars** are the last teeth towards the back of your mouth. Molars are much bigger than the

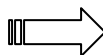


Permanent Teeth

premolars and have bigger, flatter chewing surfaces because their job is to chew and grind the food into smaller pieces.  
Molars have several cusps on the biting surface.

**Ex. 13. Make tooth-related words from the word segments. In this puzzle, combine pairs of word segments to make tooth-related spelling words.**

bic	can	ot	sor
pid	mel	tee	mo
dent	inci	ment	ine
lar	ent	perman	ena
ce	premool	ine	uspid
ar	ro	cus	th



Write the complete words here:


**Ex. 14. Read the following text and answer the questions:**

1. What are the supporting structures of the teeth? 2. What is gingiva? 3. What is the periodontal ligament? 4. What is the function of the alveolar bone?

### The structures that support the teeth

Healthy teeth are, of course, embedded in bone. The bone is covered with gums, and the gums attach not only to the bone, but also to the tooth itself.

The gingiva is that portion of the gums that surrounds the teeth and lies above the level of the bone. The part of the gingiva below the crest but above the attachment is called the free gingival margin. The potential space between the free gingival margin and the tooth is called the gingival sulcus.

The periodontal Ligament (PDL)

The periodontal ligament is the soft tissue that lies between the tooth and its bony socket. It is a continuation of the connective tissue associated with the gingivo-dental fibers, and it continues around the entire tooth. In a healthy situation, there is never a direct attachment between the bone and the tooth itself. The PDL is composed of fibrous connective tissue. The bone that supports the teeth is called alveolar bone. Its only purpose in life is to support the teeth. The part of the alveolar bone that lines the socket is a thin layer of dense cortical bone called the lamina dura. The bone that underlies the lamina dura is cancellous bone (sometimes called medullary bone). Cancellous bone looks spongy and contains blood producing "organ" called bone marrow.

### Notes:

**embedded** [ɪm'bedɪd] вмуrowаний, вставлений

**crest** [krest] гребінь, виступ

**margin** ['mɑ:dʒɪn] край

**sulcus** ['sʌlkəs] борозна

**ligament** ['lɪgəmənt] зв'язка

**alveolar** ['ælvɪərlə, 'ælvɪ'qʌlə] альвеолярний

**cortical** ['kɔ:tɪkl] кортикальний, корковий

**fiber** ['faɪbə] волокно

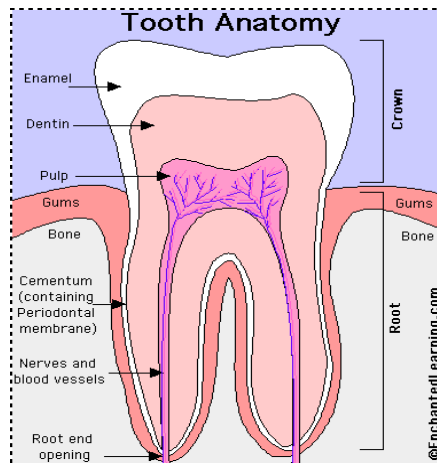
**cancellous** ['kæns(q)ləs] губчастий

**medullary** [mɛ'dʌlɪəri] мозковий

**spongy** ['spɒndʒɪ] губчастий

**bone marrow** ['bɒnə'ɒrəʊ] кістковий мозок

**Ex.15. Have a look at the picture and speak about tooth anatomy:**



### Overview

Each tooth consists of three main parts – the crown, the neck and root. The crown is the visible part of the tooth. The root is the portion of the tooth that extends through the gum and into the bone of the jaw. The neck is between the crown and the root. The tooth consists of hard and soft tissues. The hard tissues are dentin, enamel and cementum. The soft tissue is the pulp which consists of blood vessels and nerves. Enamel is the substance that covers the crown of the tooth. Dentin underlies the enamel and surrounds the nerve. Cementum helps hold the tooth in the socket. Teeth are embedded in bone. The bone is covered with gums.

## Lesson 9 Types of teeth

### VOCABULARY

**deciduous** [dɪ'sɪdʒjuəs] непостійний, молочний (про зуб)

**embryonic** ['embri'ɒnɪk] ембріональний, зародковий

**eruption** [ɪ'ɾʌpʃ(ə)n] прорізування

**dentition** [den'tɪʃn] зубний ряд

**counterpart** ['kauntəpɑ:t] зуб-антагоніст

**resorption** [rɪ'zɔ:pʃn] розсмоктування

**to dissolve** [dɪ'zɒlv] розсмоктуватися, розчинятися

**shedding** [ 'ʃedɪŋ] випадіння молочних зубів

**to replace** [rɪ'pleɪs] замінювати (ся) **infancy** ['ɪnfənsɪ] раннє дитинство

**exfoliation** [eks'fɒli'eɪʃn] випадіння молочних зубів

**to appear** [ə'pɪə] з'являтися

**space** [speɪs] простір

**to spread** [sprɛd] розповсюджуватися

**except for** [ɪk'sept] за винятком, окрім

**bud** [bʌd] зачаток

**to maintain** [meɪn'teɪn] підтримувати

### RULES OF READING

a + ll	[o:]	all tall але: shall [ʃxl] malleus ['mælɪqs]
a + ss	[a:]	glass але:

		mass [mɪks]
a + lk	[O:]	talk
a + sk	[a]	task
a + st	[a:]	last

**Ex.1. Read the following words:**

Fall, call, swallow, eyeball, wall, small, gallbladder; class, pass; walk; ask; past, plaster.

**WORD-BUILDING**

**Ex.2. Familiarize yourself with the following material:**

**Suffixes of Nouns:**

**-age** (denotes condition or phenomena)

**-er, -or** (one who; object)

to listen *слухати* – listener *слухач*

to elevate *піднімати* – elevator *підйомник, елеватор*

**-osis** (abnormal condition)

osteoporosis *остеопороз, зменшення маси кістки*

**-tomy, -otomy** (cut into; incision; section)

vagotomy *ваготомія, переривання передачі імпульсів блукаючим нервом або його гілками*

**Ex.3. Read and translate the following words:**

**A.** Language; message; advantage; usage; cartilage; storage; damage; passage.

**B.** Teacher; doctor; lawyer; player; writer; painter; reader; author; radiographer.

**C.** Tuberculosis; cardiosclerosis; atherosclerosis; necrosis.

**D.** Cholecystectomy; laparotomy; appendectomy.

**GRAMMAR:**

**Ex.4. Familiarize yourself with the data of the following table:**

**SIMPLE TENSES  
(Interrogative Form, Active Voice)  
General Questions**

Tense	Auxiliary verb	Subject	Predicate (V)	...?
Present Simple	<b>Do</b>	you (they, we, I)	work	at the hospital?
	<b>Does</b>	he (she, it)		
Past Simple	<b>Did</b>	I (he, she, it, you, we, they)	study	at the University?
Future Simple	<b>Will</b>	they (you, he, she, it)	go	to the polyclinic?
	<b>Shall</b>	I (we)		

**Ex.5. Translate the following interrogative sentences into Ukrainian:**

1. Do you study? 2. Does the physician make a morning round? 3. Does she listen to the patient's heart? 4. Did you have measles? 3. Does he have narcotic habit? 4. Will you go to the polyclinic for

prophylactic examination in a week? 5. Does this physician work at the local polyclinic? 6. Did they go to the registry first? 7. Did he make a correct diagnosis?

**Ex.6. Insert the auxiliary verbs:**

1. \_ he measure blood pressure every day? 2. \_ she work as a therapist? 3. \_ they attend many lectures yesterday? 4. \_ he go to the lab tomorrow? 5. \_ you make the appointment with the definite specialist two days ago?

**Ex.7. Make the following sentences interrogative:**

**Note:**

- 1) Determine the tense-form;
- 2) Select auxiliary verb;
- 3) Keep the structure of the interrogative sentence.

1. Neurologists work at the polyclinic. 2. The physician knows all the symptoms of grippe. 3. My friend works at the therapeutic department. 4. The doctor measured patient's blood pressure. 5. They went out to the calls yesterday. 6. Our students made notes at the lecture. 7. Nick will fill in all case-histories. 8. We shall examine the heart and lungs of the patient.

**Ex.8. Translate into English:**

1. Чи Ви навчаєтесь в педагогічному інституті? 2. Чи він вимірює кров'яний тиск своїх пацієнтів? 3. Чи ці студенти працювали в лікарні? 4. Чи лікар вчора оглянув цього хворого? 5. Чи вони переклали цей текст? 6. Чи він буде дотримуватися постільного режиму?

**Ex.9. Familiarize yourself with the data of the following table:**

**Special Questions**

Tense	Interrogative word	Auxiliary verb	Subject	Predicate ...?
<b>Present Simple</b>	What	<b>do</b>	I (you, we, they)	<b>V</b>
	Which When Where How many How much	<b>does</b>	he (she, it)	
<b>Past Simple</b>	How long Why	<b>did</b>	I (we, he, she, it, you, they)	<b>V</b>
<b>Future Simple</b>	How often	<b>shall</b> <b>will</b>	I (we) he (she, it, you, they)	<b>V</b>

**Examples:**

Where	<b>do</b>	you	<b>study?</b>
What Academy	<b>does</b>	this student	<b>study at?</b>
When	<b>does</b>	Bill	<b>work at the hospital?</b>
Why	<b>did</b>	Nick	<b>go to the lab?</b>
When	<b>will</b>	they	<b>enter the Academy?</b>

**NOTE:** У запитаннях до підмета або визначення підмета зберігається прямий порядок слів: *Who studies English? What specialists work here?*

**Ex.10. Translate the following questions into Ukrainian:**

1. When does your working day begin? 2. What subjects will you study? 3. What did you do after classes yesterday? 4. What specialists does the medical faculty train? 5. How long does the course of training take at your Academy? 6. What does a physician do during the medical examination? 7. In what cases does a local physician go out to the calls?

**Ex.11. Insert the auxiliary verbs:**

1. What Institute \_ Ann study at? 2. What faculty \_ you study at? 3. Why \_ you choose medicine as your speciality? 4. What specialists \_ your faculty train? 5. What clinical subjects \_ the medical students study? 6. How many credit tests \_ you take next term? 7. How many terms \_ the academic year have? 8. How long \_ doctors' training take? 6. What \_ a local physician write down in every patient's card last week?

**Ex.12. Put the questions to the following sentences:**

1. Doctors' training takes six years. (How long...?) 2. The students will study clinical subjects. (What subjects...?) 3. Senior students acquire practical skills working at the hospitals and polyclinics. (Where...?) 4. In addition to the consulting hours at the polyclinic local physician goes out to the calls. (In what cases...?) 5. Yesterday the doctor put him on a sick-leave. (What...?)

**Ex.13. Translate the following questions into English:**

1. У якому інституті Ви навчаєтесь? 2. Коли ваші студенти працюватимуть в лікарні? 3. Де він працював минулого року? 4. Які предмети вивчатимуть студенти-старшокурсники наступної зими? 5. Як Ви проводите фізикальний огляд пацієнта? 6. Як часто він вимірює кров'яний тиск?

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.14. Read VOCABULARY and memorize new words.**

**Ex.15. Compose 2-3 sentences using the words of the VOCABULARY.**

**Ex.16. Insert the missing letters:**

Decidu\_us, t\_mporary, er\_ption, post\_rior, mo\_ar, dent\_tion, shed\_ing, a\_e, mand\_bular, maxil\_ary.

**Ex.17. Read and translate the following words and word-combinations:**

Milk teeth, temporary, development, to erupt, embryo phase, midline, to spread, posterior region, permanent counterpart, except for, to remain until, root resorption, tooth bud, in order to, proper development, dental researchers.

**Ex.18. Read and translate the following text:**

### Deciduous teeth

Deciduous teeth, otherwise known as milk teeth, baby teeth, temporary teeth, primary teeth are the first set of teeth in the growth development of humans and many other mammals. They develop during the embryonic stage of development and erupt during infancy. They are usually lost and replaced by permanent teeth.



Deciduous teeth start to form during the embryo phase of pregnancy. The development of deciduous teeth starts at the sixth week of development. This process starts at the midline and then spreads back into the posterior region. The eruption of these teeth begins at the age of six months and continues until twenty-five to thirty-three months of age. The first teeth seen in the mouth are the mandibular centrals and the last are the maxillary second molars.

The deciduous dentition is made up of central incisors, lateral incisors, canines, first molars, and secondary molars. All of these are replaced with a permanent counterpart except for the first and second molars; they are replaced by premolars. The deciduous teeth will remain until the age of six. At that time, the permanent teeth start to appear in the mouth. The eruption of permanent teeth causes root resorption, where the permanent teeth push down on the roots of the deciduous teeth causing the roots to be dissolved and become absorbed by the forming permanent teeth. The process of shedding deciduous teeth and the replacement by permanent teeth is called exfoliation. This may last from age six to age twelve. By age twelve there usually are only permanent teeth remaining.

*Teething age of deciduous teeth:*

Central incisors : 6-12 months

Lateral incisors : 9-16 months

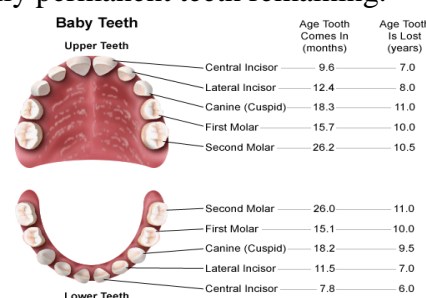
Canine teeth : 16-23 months

First molars : 13-19 months

Second molars : 22-33 months

Deciduous teeth are considered essential in the development of the oral cavity by dental researchers and dentists.

The permanent teeth develop from the same tooth bud as the deciduous teeth. Also the muscles of the jaw and the formation of the jaw bones depend on the primary teeth in order to maintain the proper space for permanent teeth. The roots of deciduous teeth provide an opening for the permanent teeth to erupt. These teeth are also needed for proper development of a child's speaking and chewing of food.



**Ex.19. Translate the following words and word-combinations:**

Тимчасові зуби, молочні зуби, постійні зуби, перший набір зубів, центральний різець, латеральний різець, ікло, замінюватися постійними зубами, починатися з середньої лінії, прорізування зубів, залишатися до шести років, призводити до розсмоктування коренів, формування постійних зубів, випадіння молочних зубів, м'язи щелепи, залежати від, бути необхідним для правильного розвитку.

**Ex.20. Answer the questions:**

1. What are deciduous teeth?
2. What synonyms for “deciduous teeth” can you name?
3. When do the baby teeth develop?
4. When do deciduous teeth start to form?
5. When does the development of deciduous teeth start?
6. When does the eruption of temporary teeth begin?
7. What are the first teeth seen in the mouth?
8. What is the deciduous dentition made up?
9. What does the eruption of permanent teeth cause?
10. What is exfoliation?

**Ex.21. Insert prepositions or adverbs where necessary (between, of, for, around, until, before, into, about). Read and translate the following text.**

For an infant, the mouth is a sensitive portal connecting the world .... him to his developing mind and body. He uses his mouth to meet his mother, to sate his constant hunger, to comfort himself ... feedings, and to explore objects in the widening world around him. When hard teeth begin protruding ... this soft, sensitive orifice, it is a major event in the life ... an infant.

Many parents worry ... the timing of the appearance of their children's teeth. While the average time ... the appearance of the first teeth is between five and seven months of age, there is a wide normal variation of timing. The teeth might come in as early as one month of age, or they might wait ... a child is almost one-and-a-half-years old. Anywhere in this range can be normal.

Generally lower teeth come in ... upper teeth, and generally girls' teeth erupt earlier than those of boys . Delayed eruption of all teeth may be the result of a nutritional problem or a systemic condition.

**Ex.22. Complete the text with the words in the box.**

Your child's \_\_\_\_\_ teeth are extremely important. Without them your child cannot \_\_\_\_\_ food properly and will have difficulty learning to speak clearly. A deep cavity in a baby tooth can cause a lot of \_\_\_\_\_ that a young child may not be able \_\_\_\_\_ about to the parent properly. Severe \_\_\_\_\_ may result from untreated cavities. Untreated cavities in primary teeth can also adversely affect the development of \_\_\_\_\_ teeth. Such cavities result in a roughening of adult teeth, or cause permanent teeth that \_\_\_\_\_ with cavities. Baby teeth also serve to reserve space for permanent teeth and guide new tooth \_\_\_\_\_ in a proper direction. If a baby tooth is lost too \_\_\_\_\_, new teeth may grow in crooked.

Permanent; eruption; pain; infections; baby ;erupt; early; chew; to complaint.
--

**Ex.23. Read the following text and entitle it:**

At birth, baby's 20 primary teeth are present in the baby's jawbones and the crowns of these primary teeth are almost complete. Usually, the front four teeth will begin to "erupt" between age 6 months and one year. By age three, most children have a full set of 20 primary teeth. The primary teeth play an important role in the child's ability to chew and speak and in the child's appearance. Also, the primary teeth are useful in holding space in the jaws for the permanent teeth.

As a child approaches age six, the jaw is growing to make room for the permanent teeth. As this happens, the roots of the permanent teeth are beginning to be absorbed by the surrounding tissue and the permanent teeth prepare to erupt.

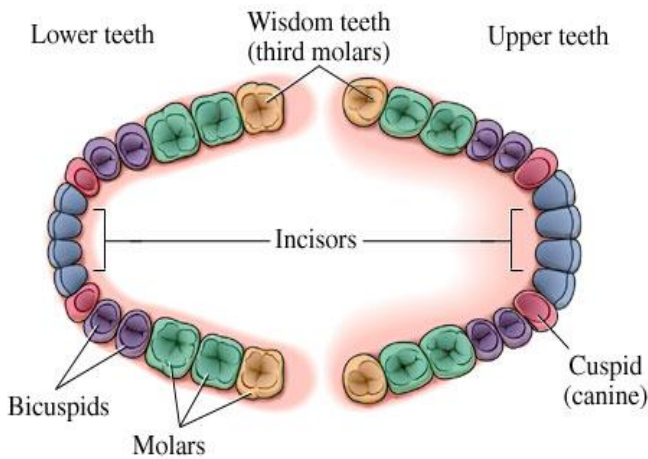
Between ages five and six, the first permanent molars usually erupt. These molars are also called, "six-year" molars.

These molars do not replace any primary teeth and are especially important because they help determine the lower part of a child's face and affect the position of the other permanent teeth. By age 21, all 32 permanent teeth usually will have erupted.

**Ex.24. Read and translate the following text:**

**Permanent teeth**

Permanent teeth are the second set of teeth formed in humans. There are thirty-two permanent teeth, consisting of six maxillary and six mandibular molars, four maxillary and four mandibular premolars, two maxillary and two mandibular canines, four maxillary and four mandibular incisors. The first permanent tooth usually appears in the mouth at around six years of age. The first adult teeth are the permanent first molars that come through the gums at the back, right behind the last 'milk' molars. These first permanent molars are the most important teeth for the correct development of an adult dentition. Up to the age of thirteen years twenty-eight of the thirty-two permanent teeth will appear. Grown-ups have a set of 32 permanent teeth, of four different teeth types. Sixteen at the top and sixteen at the bottom jaw : 8 incisors, 4 canines, 8 premolars and 12 molars.



The full permanent dentition is completed much later. The four last adult teeth, one at the back of every arch will appear between the ages of seventeen and twenty-one years. This is the reason they are named wisdom teeth. Wisdom teeth, officially referred to as third molars, are usually the last teeth to develop. They are located in the very back of your mouth, next to your second (or twelve year) molars and near the entrance to your throat. Third molars are usually completely developed between the ages of 15 and 18, a time traditionally associated with the onset of maturity and the attainment of "wisdom."

In many people, wisdom teeth come in with no problems. If the teeth are healthy and they come in straight, then most of people do not even realize the teeth are there. Unfortunately, in some cases, they cause problems that require the wisdom teeth removal (extraction) by the dentist.

Problem caused by wisdom teeth does not necessarily mean pain. Most people do not experience pain with their wisdom teeth. Problems are more often silent and progress slowly. By the time a problem does become evident to a person, substantial damage has often already occurred. Specific problems include pain, bacteria, impactions, damage to adjacent root, crowding, pericoronitis (inflammation around the crown of a tooth) and others.

Pain is the most common complaint associated with impacted wisdom teeth. A person may have soreness or pain in the back part of the jaw, ear ache, sore throat or pain in the side of the face. The impacted wisdom tooth itself may be the source of the pain or there may be an infection associated it. This generally happens because these partly erupted teeth are difficult to keep clean, and the accumulated food particles cause the gums around the tooth to get infected. If untreated by removing the wisdom tooth, the infection may cause destruction of the bone surrounding the wisdom tooth and will affect the neighboring tooth.

**permanent** [p ʷmenɔnt] постійний

**dentition** [den'tiʃn] зубний ряд

**to complete** [kɔm'pli:t] завершувати

**to refer** [rɪ'fɜ:] стосуватися

**entrance** ['entrɪns] вхід

**maturity** [mɔ'tʃuərti] зрілість

**attainment** [ə'teɪnmənt] знання, досвід

**removal** [rɪ'mu:vəl] видалення

**impaction** [ɪm'pɔks(ə)n] защемлення, ретенція

**soreness** ['sɔ:nəs] болючість, чутливість

**to experience** [ɪks'pɪəriəns] відчувати

**pain** [peɪn] біль

**evident** ['eɪvɪdnt] очевидний

**substantial** [səb'stɒnʃ(ə)l] суттєвий

**damage** ['dæmɪdʒ] пошкодження

**adjacent** [ə'dʒeɪsnt] суміжний, прилягаючий

**crowding** ['kraʊdɪŋ] скупчення

**complaint** [kəm'pleɪnt] скарга

**ache** [eɪk] біль

**to accumulate** [ə'kjʊ:mjəleɪt] накопичувати(ся)

**Ex.25. Insert prepositions where necessary (for, around, of, on, into, in, without):**

Wisdom teeth commonly do not have enough room to properly erupt \_\_\_\_\_ our mouth where they can become fully functional and cleansable teeth. This lack \_\_\_\_\_ space can result in a number of harmful effects \_\_\_\_\_ your overall dental health. When a tooth cannot erupt into proper alignment, we call it impacted, which simply means "stuck" \_\_\_\_\_ an improper position.

If you do not have enough room in your mouth \_\_\_\_\_ your wisdom teeth to erupt into proper position they can cause a multitude of problems, such as: infection, damage to adjacent teeth, cysts, crowding etc.

\_\_\_\_\_ enough room for total eruption, the gum tissue \_\_\_\_\_ the wisdom tooth can become irritated and inflamed, resulting in recurrent pain, swelling and problems with chewing and swallowing.

### Overview

Deciduous teeth are the first set of teeth. They develop during the embryonic stage of development and erupt during infancy. They are usually lost and replaced by permanent teeth. The deciduous dentition is made up of central incisors, lateral incisors, canines, first molars, and secondary molars.. All of these are replaced with a permanent counterpart except for the first and second molars; they are replaced by premolars. The deciduous teeth will remain until the age of six. Permanent teeth are the second set of teeth. Their eruption starts at the age of six years and is completed at eighteen to twenty-five years. Grown-ups have 32 permanent teeth, of four different teeth types. There are sixteen at the maxilla and sixteen at the mandible: 8 incisors, 4 canines, 8 premolars and 12 molars. Wisdom teeth appear later in life. They are located in the very back of the mouth.

## Lesson 10 Dental facilities

### VOCABULARY

**private** ['praɪvət]- персональний, конфіденційний

**room** [rʊm]- простір

**sink** [sɪŋk]- раковина

**rinse** [rɪnz]- полоскати рот

**hydraulic lift** [hɪ'drɪlɪk]- гідравлічний підйомник

**handpiece** [hændpi:s] - наконечник (для бормашины)

**drill** [drɪl]-свердлити

**wireless** ['waɪəls] - бездротовий

**imaging** ['ɪmɪdʒɪŋ] - візуалізація, отримання зображення з допомогою рентгенографії, томографії та інших досліджень

**tray** – [treɪ] 1. лоток; 2. відбиткова ложка

**tool** – [tu:l] інструмент

**safety** ['seɪftɪ]- безпека

**foreign body** - чужорідне тіло

**gloves** [glɒvz]- рукавички

**penetrate** ['penɪtreɪt] - проникати усередину, проходити крізь, пронизувати

**plaque** [plɑ:k]-бляшка

**filling** ['fɪlɪŋ] -пломба

**forceps** ['fɔ:seps]-щипці

**extraction** [ɪk'strækʃn] - видалення

**point** - штифт

**seal** [si:l]- герметик, засіб для герметизації

**wheel-shaped** ['wi:l] -колесоподібний

**splint** -шинувальна стрічка

**impression** - відбиток

**rubber dam** [rʌbər dæm]-кофердам

**saliva ejector** [sə'ləvɪə'ʤektə] - слиновідсмоктувач

**hit upon** -потрапляти

## RULES OF READING

wa	[O]	was want
wa + r	[O:]	warm
wo + r	[q:]	work word
igh	[al]	high light

### Ex.1. Read the following words:

Water, wash; warm, ward, warning; word-combination, world, crossword; fight, right, might, tight.

## WORD-BUILDING

### Ex.2. Familiarize yourself with the following material:

#### Suffixes of Noun:

**-algia** (pain)

**-ia, -iasis** (condition, process)

**-ian** (specialist)

### Ex.3. Read and translate the following words:

A. Neuralgia; arthralgia; otalgia.

B. Pneumonia; hernia; anaesthesia; leukemia; diphtheria; malaria; hyperglycemia; anemia; candidiasis.

C. Physician; pediatrician; obstetrician; technician.

## GRAMMAR:

### SIMPLE TENSES

(Active Voice, Interrogative Form)

### Ex.4. Put the questions to the following sentences:

1. I complain of a headache. 2. He had a high temperature. 3. My throat troubles me. 4. They feel pain on swallowing. 4. Her heart troubles her. 5. John fell ill three days ago. 6. The patient noticed weakness and headache. 7. The patient feels a pain in his abdomen. 8. The physician will examine your lungs.

### Ex.5. Read the following grammar material:

#### IMPERATIVE MOOD

Stand up!	Встаньте!
Don't be late!	Не запізнуйтеся!
Do write to me.	Будь ласка, пишіть мені!
Let us read this text once more.	Давайте прочитаємо цей текст ще раз.
Let them do it now.	Хай вони зроблять це зараз!

### Ex.6. Read and translate the following sentences:

1. Listen to me attentively. 2. Order this drug in the pharmacy. 3. Take this medicine a teaspoonful twice a day before meals. 4. Take these tablets one every three hours. 5. Apply mustard plasters every day before going to bed. 6. Take warm tea with the raspberry jam. 7. Gargle your throat several times a day. 8. Make the analyses of blood and urine. 9. Start external cardiac massage immediately! 10. Take patient's temperature at 12 o'clock today and give him this drug. 11. Give me the case reports which are on the professor's table.

## READING AND DEVELOPING SKILLS

**Ex.7. Read VOCABULARY and memorize new words.**

**Ex.8. Compose 5-6 sentences using the words of the VOCABULARY**

**Ex.9. Translate the following words, paying attention to the groups of the words with the same root:**

Comfort, discomfort, comfortable, comfortless; to care, careful, carefully, careless, carelessness, carefree; oral, intra-oral, orally, peroral; to penetrate, penetration, penetrable; to protect, protective, protection, protector, protected; to equip, equipped, equipment, re-equipment; safe, safety, safeguard, safely.

**Ex.10. Read the following words and word combinations:**

X-ray equipment; instrument holder; to focus; safety glasses; temporary fillings; permanent fillings; to rinse; soft tissues; hard tissues; impression tray; impression materials; to stretch out; tooth extraction; steam; chemical solution; ultra violet light radiation.

**Ex.11. Read and translate the following text:**

### DENTAL FACILITIES

The dentist's offices are designed to be comfortable, private, and relaxing for all of the patients. Each and every room in it is carefully planned out in order to provide patients with the best care and service possible.



After your name is called in the waiting room, you'll go into an exam room and sit down in a big, comfortable armchair. The armchair will have a place to rest your head and lots of room for you to stretch out your legs. Next to the chair may be a little sink with a cup that you can use to rinse out your mouth as your teeth are being cleaned. The typical dental operator or dental unit system contains armchairs with hydraulic lifts, sterilizers, x-ray equipment, an instrument holder, and handpieces used for drilling and cleaning. Some of them may be equipped with intra-oral cameras and wireless video imaging. Proper illumination is required to detect any changes in oral cavity, so dental lamp can be focused to show all parts of the mouth. Next to the chair there is a small table for the trays with all sorts of the tools.

While examining oral cavity or performing any oral treatment a dentist should wear a face mask, protective safety glasses to prevent hit upon foreign bodies into eyes, and dentist's hands should always be gloved.

In examination of dental and periodontal tissues the use of instruments such as a probe, a mirror, cotton wool, forceps is demanded. Diagnostic aids are also provided by periapical radiographs, an electric pulp tester, ice-stick, hot gutta-percha, a periodontal probe and others. Dental instruments must be sterile, for those instruments which do not penetrate soft tissues and bone and come in contact with the skin only disinfection is adequate. Microorganisms can be killed by steam, chemical solution, ultra violet light radiation.

Dentists use the following instruments: an excavator for removing softened dentine or plaque and temporary fillings; straight forceps - for extracting incisors and canines; S-shaped forceps - for extraction of premolars. Also there are a lot of burs: diamond, round, cylindrical, wheel-shaped.

There are also instrument cupboards with many instruments in them. We can see various filling materials, bonding systems for restoration work; files, paper and gutta-percha points, seals for endodontics; splints, trays, matrices, impression materials for orthopaedic work; dental cotton rolls, rubber dam, saliva ejector for hygienic purposes.

**Ex.12. Translate the following words and word-combinations into English:**

Відновлювальні роботи; ватні кульки; розм'якшений дентин; видаляти зубні бляшки; стоматологічна установка; відповідне освітлення; виявляти будь-які зміни; чужорідне тіло; рукавички; бездротовий; обладнання; ретельно спланований; стерильний; щипці, пінцет; різці; алмазний бор; полоскати рот.

**Ex.13. Answer the following questions:**

1. What do you have to say about the design of dental rooms, dental surgeries? 2. What can one see in the dental surgery? 3. What does the typical dental operatory or dental unit system contain? 4. Is proper illumination required to detect any changes in oral cavity? 5. How can dentists protect themselves from various infections and foreign bodies while performing any dental work? 6. What instruments are required for the oral examination? 7. What tools are used for tooth extraction and for restorative works? 8. What is required for endodontics and orthopaedic work? 9. What is used for the disinfection of the dental instruments?

**Ex.14. Match the terms with their definitions:**

1. dental lamp; 2. bur; 3. straight forceps; 4. electric pulp tester; 5. cotton wool rolls; 6. dental mirror; 7. saliva ejector; 8. dental armchair.

**A.** This is applied to the crown to determine whether the pulp is alive or dead. **B.** They are used for extracting incisors and canines. **C.** They are for keeping the oral cavity dry.

**D.** A patient can sit or lie in it. **E.** They are used for drilling away hard dental tissues. **F.** It provides the proper illumination. **G.** It reflects any changes in oral cavity which can not be seen directly, without using any instruments.

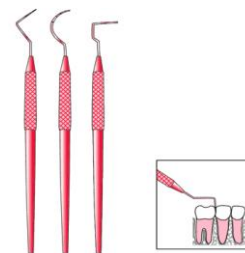
**Ex.15. Read the following text, translate it and write down all unknown words:**

**Dental tools**

There are many reasons people fear a visit to the dentist's office. Most commonly, they fear the discomfort and occasional pain that can accompany dental work. Some are uncomfortable with the inherently invasive nature of dental procedures. A lack of understanding about dentistry and the unusual-looking tools that are used can play a part too. Patients benefit from understanding the work dentists perform and the tools they use to do it.

**Probes**

When a patient goes for a general dental checkup, the dentist uses a number of different types of hand-held stainless steel probes or sharp-pointed tools. The most common ones are called the sickle or contra-angled probes. By softly poking the sharp end of these instruments into the patient's teeth and gums, the dentist can measure the depth of the gum pockets and look for holes in the enamel to determine gum and tooth decay. The probes can also locate fissures and problems that are developing with a crown or bridge.



**Suction Equipment**





While the dentist or dental hygienist is working on a patient, an excess amount of saliva will accumulate in the mouth. A suction instrument, called a saliva ejector, removes the accumulated moisture. Rolls of cotton are also used to absorb blood, dental debris and saliva. Normally, the suction device is placed in the patient's lower jaw area inside the bottom row of teeth to pick up excess moisture during the procedures.

### Drill

The dentist's drill has a quickly rotating bit that makes holes in the tooth to remove decayed material, or plaque, from a cavity. While the tooth is being drilled, tiny diamond chips on the drill's tip erode the plaque and damaged enamel. Once the plaque is removed from the tooth, the bacteria have nowhere else to live, so no more decay can occur. The hole is then filled with a material that makes the tooth stronger and helps prevent further damage. The dental drill bit, or bur, is very durable and able to withstand the high amount of heat that is generated with the fast rotation. A number of different bur shapes are produced, each having its own cutting capabilities.



### Mirror



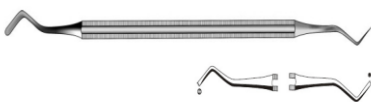
Dentists use a round mirror at the end of a stainless steel pen-like handle to see into hidden parts of the mouth and teeth. They are particularly looking for gums that are red, swollen or bleeding, decayed teeth and areas where tartar is heavily built up. When dentists cannot see with the mouth mirror's indirect vision, they will use the mirror to reflect light from above the patient's chair onto dark internal surfaces.

### Forceps

Dental forceps, which extract teeth, consists of a beak, neck and handle. The beak is made to grab a tooth that is located in a specific part of the mouth. It is designed to fit tightly around the tooth. The forceps' beak, for example, may be especially angled to extract the upper canines, upper laterals, or bicuspids. Because of their function, these instruments are also called extracting forceps.



### Filling Tools



Filling instruments are used to fill gaps around the teeth and gums. These long-handled tools have flat, thick ends to push the filling material with the necessary amount of pressure. They completely fill the open gaps.

Dental cavity filling instruments are made in both single-end and double-end versions. They also come in different sizes and styles.

### Overview

The dentist's offices are designed to be comfortable, private, and relaxing for all of the patients. One can see some universal equipment here to fulfill the needs of the dentists. First of all there is a dental operator or dental unit system contains armchairs with hydraulic lifts, sterilizers, x-ray equipment, an instrument holder, and handpieces used for drilling and cleaning. Some of them may be equipped with intra-oral cameras and wireless video imaging. Proper illumination is required to detect any changes in oral cavity, so dental lamp can be focused to show all parts of the mouth. Next to the chair there is a small table for the trays with all sorts of the tools. Dentists use the following instruments: an excavator for removing soften dentine or plaque and temporary fillings; straight forceps - for extracting incisors and canines; S-shaped forceps - for extraction of premolars. Also there are a lot of burs: diamond, round, cylindric, wheel-shaped.



### VOCABULARY

<p><b>inspection</b> [ɪn'spekʃ(ə)n] огляд, обстеження</p> <p><b>identification</b> [aɪ'dentɪfɪ'keɪʃ(ə)n] вияв, визначення</p> <p><b>deterioration</b> [dɪ'tɪəriə'reɪʃ(ə)n] погіршення, руйнування</p> <p><b>restoration</b> ['rest(ə)'reɪʃ(ə)n] відновлення</p> <p><b>indentations</b> ['ɪnden'teɪʃ(ə)n] заглиблення</p> <p><b>probe</b> [prəʊb] зонд</p> <p><b>sulcus</b> ['sʌlkəs], [sul'kəs] борозна</p> <p><b>magnify</b> ['mægnɪfaɪ] збільшувати</p>	<p><b>intraoral</b> внутрішньоротовий</p> <p><b>complete</b> [kəm'pli:t] повний</p> <p><b>issue</b> ['ɪʃu:], ['ɪsju:] проблема</p> <p><b>detailed</b> ['di:teɪld] докладний</p> <p><b>evaluate</b> [ɪ'væljueɪt] оцінювати</p> <p><b>measure</b> ['meʒə] вимірювати</p> <p><b>calculus</b> ['kælkjuləs] зубний камінь</p>
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### RULES OF READING CONSONANTS (ПРИГОЛОСИ)

Letters	Sounds	Examples
kn	[n]	know
tch	[tʃ]	catch
th	[ð]	this
th	[θ]	thick

**Ex.1. Read the following words:**

Knee; knowledge; knife; stretch; match; itchy; catch; watch; something; through; think; health; pathological; therapist; that; them; further; without.

### WORD-BUILDING

**Ex.2. Familiarize yourself with the following material:**

**Suffixes of Noun:**

**-(i)ty** (denotes condition or phenomena)

abnormality – патологія

**-ness** (denotes condition or phenomena)

correct *правильний* – correctness *привильність*

hopeless *безнадійний* – hopelessness *безнадійність*

**Ex.3. Read and translate the following words:**

- A. Ability; activity; reality; humanity; possibility; integrity; majority; severity.  
 B. Weakness; illness; dryness; breathlessness; thickness; effectiveness; heaviness.

**GRAMMAR:**

**Ex.4. Read the following grammar material:**

**PARTICIPLE II (V<sub>3</sub>)**

<b>Infinitive</b>	<b>Participle II</b>
deliver	delivered
treat	treated
say	said
make	made
take	taken

**Ex.5. Form Participles II from the following infinitives:**

- A. locate, call, connect, examine, remember, love, need, graduate, include, obtain;  
 B. begin, come, give, know, see, feel, give, go, cut, do, find, send, sleep, speak, write.

**Ex.6. Read the following examples:**

1. <b>Measured</b> blood pressure was very high.	1. Виміряний кров'яний тиск був дуже високий.
2. Blood pressure <b>measured</b> was high.	2. Виміряний кров'яний тиск був високим.
3. Blood pressure <b>measured</b> by the doctor was very high.	3. Кров'яний тиск, виміряний лікарем, був високим.

**Ex.7. Read and translate the following sentences:**

1. Prescribed medicine is useful for this patient. 2. The operation performed under general anaesthesia was very complex. 3. Injured leg hurts very badly. 4. The examined patient was seriously ill. 5. All drugs taken from the chemist's shop must be returned. 6. The problems discussed at the conference are very important for dentists. 7. Our scientists know about great successes achieved by them. 8. One of the greatest contributions to the world science made by V. Vorobyov was "Atlas on Human Anatomy". 9. Young specialist graduated from the Medical University works as intern. 10. The patient directed to make blood analyses had grippe.

**Ex.8. Translate the sentences containing Participles II into Ukrainian:**

1. Results of an examination should be entered into a patient's medical record. 2. The visual examination of the oral cavity can be carried out with the simplest aids: a good light, a dental mirror, probes, and carrying forceps for cotton wool. 3. Teeth are inspected for shape, defects, mobility, color, and presence of plaque and calculus. 4. Attention should be paid to the past dental history. 5. Dental unit system may be equipped with intra-oral cameras and wireless video imaging. 6. Proper illumination is required to detect any changes in oral cavity. 7. Dental lamp can be focused to show all parts of the mouth. 8. After your name is called in the waiting room, you'll go into an exam room and sit down in a big, comfortable armchair. 9. The dentist's offices are designed to be comfortable, private, and relaxing for all of the patients.

**READING AND DEVELOPING SPEAKING SKILLS**

**Ex.9. Read VOCABULARY and memorize new words.**

**Ex.10. Compose 3-4 sentences using the words of VOCABULARY.**

**Ex.11. Insert the missing letters:**

E\_amination, c\_vity, tiss\_es, treatm\_nt, restora\_ion, p\_tient, radiogra\_h, mo\_th, che\_ks, pal\_te, thro\_t, ton\_ue, l\_ps, ble\_ding, de\_ay, sulc\_s, saliv\_ry, d\_ct, ne\_k.

**Ex.12. Read and translate the following word combinations:**

Dental examination, soft tissues, treatment plan, supporting structures, medical history, floor of the mouth, pathological changes, taste and breath, steel instrument, tooth surfaces, caries development, radiographic record, periodontal probe, around each tooth, root defects, salivary glands, lymph nodes, treatment plan, healthy mouth, early signs.

**Ex.13. Match the following English word combinations with the Ukrainian ones:**

- |  |  |
|--|--|
| 1. treatment plan                        | a) попередні стоматологічні проблеми             |
| 2. provide enough information            | b) план лікування                                |
| 3. line the inside of the mouth          | c) вимірювати глибину кожної борозни             |
| 4. previous dental experiences           | d) найменші заглиблення на поверхнях зуба        |
| 5. to measure the depth of each sulcus   | e) вистилати внутрішню частину ротової порожнини |
| 6. minute indentations on tooth surfaces | f) забезпечувати достатньою інформацією          |

**Ex.14. Read and translate the following text:**

**Dental examination**

Dental examination, also called intraoral examination, is an inspection of the teeth and surrounding soft tissues of the oral cavity. A dental examination is complete if it allows identification of all active factors that are capable of causing or contributing to the deterioration of oral health or function. It is incomplete if it does not provide enough information to develop a total treatment plan aimed at optimum restoration of the teeth and their supporting structures.

Usually a dental examination is followed by the taking of x-rays, but this depends on a number of issues including clinical needs and medical history. Every examination is different, simply because every patient is different.

When you are in the chair, the dentist will move you into a reclining position so that your mouth can be more easily examined. The dentist then examines the soft tissues including the cheeks, palate, throat, tongue, floor of the mouth, and your lips. The purpose of the soft tissue examination is to detect pathological changes in the tissues that line the inside of the mouth.

The teeth are evaluated for cracks, decay, malformations and malocclusions. The dentist will also look for problems such as food traps and bleeding gums. The dentist will also ask about issues that concern the patient: previous dental experiences, problems with taste and breath, as well as issues with appearance and comfort.

The examiner generally uses an explorer, a slender steel instrument with a flexible, sharp point, to probe the minute indentations on tooth surfaces for signs of demineralization and caries development. Fillings are also inspected, and a radiographic record of the teeth is usually made.



The examiner may also insert a periodontal probe into the soft-tissue sulcus around each tooth, to measure the depth of each sulcus and to explore for calculus and root defects.

The examination should include inspection of the floor of the mouth, all surfaces of the tongue, the salivary glands and ducts, and the lymph nodes of the neck.

Sometimes an intraoral video camera is used to look inside your mouth. This technology makes it possible to see intraoral areas and features in a highly magnified and illuminated way not normally possible otherwise. This video scan is visible on a TV screen, so the patient can see the full colour, live, real-time images of their teeth and other intraoral tissues.



Finally, after the dental examination the dentist constructs a personalized treatment plan in writing for each patient, the plan includes the costs of any proposed treatments, the treatment plan is then discussed fully with the patient and the patient is educated about all the alternatives available for treatment.

Regular dental examinations (ideally every six months) are very important and help you to maintain a healthy mouth. The process allows the dentist to check for early signs of dental problems, such as decay or gum disease, and therefore take measures to prevent the problems from becoming serious. This could save a lot of pain, time and money.

**Ex.15. Find in the text English equivalents for the following words and word combinations:**

Оточуючі м'які тканини, поверхні зуба, кольорове зображення, аномалія прикусу, у збільшеному вигляді, накопичення їжі, сприяти погіршенню здоров'я ротової порожнини, виявити патологічні зміни, стосуватися пацієнта, вжити заходи щодо запобігання ускладненню проблем, лімфатичні вузли, рентгенівський знімок.

**Ex.16. Answer the following questions:**

1. What is dental examination? 2. In what cases is dental examination complete? 3. When is dental examination incomplete? 4. Is it necessary to take x-rays before examination? 5. What kinds of soft tissues does the dentist examine and why? 6. What instruments are used by the dentist during dental examination? 7. What is the final stage of dental examination? 8. How often should you consult your dentist?

**Ex.17. Insert the missing words:**

1. The purpose of the soft tissue \_\_\_\_\_ is to detect pathological changes in the oral tissues. 2. The dentist constructs a personalized \_\_\_\_\_ plan in writing for each patient. 3. The treatment plan includes the \_\_\_\_\_ of any proposed treatments. 4. The dentist examines the soft tissues including the cheeks, palate, throat, tongue, \_\_\_\_\_ of the mouth, and your lips. 5. Dental examination is an inspection of the \_\_\_\_\_ and surrounding soft tissues of the oral cavity.

**Ex.18. Read the following text and retell it:**

**How often should I go to the dentist?**

The standard recommendation is to visit your dentist twice a year for check-ups and cleanings. This frequency level works well for most people, although some people with gum disease, a genetic predisposition for plaque build-up or cavities, or a weakened immune system might need to visit the dentist more frequently for optimal care.

Comprehensive dental exams not only check for tooth decay and gum health but also examine your entire mouth, head, and neck area. This type of exam is generally given if you are a first-time patient to a new dentist, but should also be given periodically by any dentist you've been visiting for years. The comprehensive exam will likely include these evaluations:

Head and neck — Your dentist will look for any problems on the exterior surface of your head and neck, as well as feel for any swelling or tenderness (which are signs of an infection or disease) in your lymph nodes and salivary glands in your neck area. Your dentist will also examine your temporomandibular joint to determine if it is working properly.

Soft tissue — The soft tissues of your mouth include the tongue, inside of the lips and cheeks, and the floor and roof of the mouth. Your dentist will examine these areas for spots, lesions, cuts,

swellings, or growths that could indicate an oral health problem. Your dentist will also inspect the back of your throat and tonsil area.

**Gum tissue**— Your dentist will examine your gums and supporting structures of the teeth. Your dentist will look for signs of gum disease, which include red or puffy gum tissue and tissue that easily bleeds when gently poked. If your dentist determines you have gum disease, he or she might send you to a periodontist.

**Occlusion** —Your dentist will check how well your upper and lower teeth come together. Your dentist might simply look at how your teeth meet, or he or she might take wax impressions of your teeth if a more careful exam of "your bite" is necessary.

**Clinical examination of teeth** — Your dentist will check for signs of tooth decay by examining the surface of every tooth. He or she will likely poke your teeth with a dental instrument, called an explorer, to look for cavities. (Decayed enamel feels softer when poked compared to healthy enamel.) Your dentist will also check for any problems with fillings, braces, bridges, dentures, crowns, or other restorations.

**X-rays** — Your dentist will take X-rays to look for signs of tooth decay, as well as for gum disease and other oral health problems.

**Ex.19. Supply the missing words given below and translate:**

Two oral health care professionals - your dentist and the dental hygienist – will likely see you. The hygienist will conduct an initial \_\_\_\_\_ exam of your gums and teeth, document any changes in your overall health and \_\_\_\_\_ use, clean and polish your \_\_\_\_\_, talk to you about caring for your teeth and \_\_\_\_\_, and answer any questions you might have about home care products. Your dentist will also conduct an oral \_\_\_\_\_ of your mouth (for signs of oral cancer or other \_\_\_\_\_), gums, and teeth; ask about changes in your overall health or medicine use; review the cleaning done by the hygienist; diagnose any oral health problems; and make \_\_\_\_\_ recommendations.  
(*exam, treatment, diseases, gums, oral, teeth, medicine*)

**Ex.20. Insert the missing prepositions where necessary and translate the following sentences:**

1. Your teeth can be thoroughly cleaned \_\_\_ a professional cleaning only. 2. Most hygienists use a series \_\_\_ metal hand instruments to clean your teeth. 3. \_\_\_\_\_ your teeth have been cleaned, they are polished to remove plaque and stains \_\_\_ the tooth surface. 4. The polish contains \_\_\_ an abrasive substance and fluoride. 5. Your hygienist will give you instructions about brushing or flossing, or general care questions \_\_\_\_\_ your teeth and gums.

**Overview**

Dental examination is an inspection of the teeth and surrounding soft tissues of the oral cavity. Usually a dental examination is followed by the taking of x-rays. The dentist then examines the soft tissues including the cheeks, palate, throat, tongue, floor of the mouth, and your lips. The teeth are evaluated for cracks, decay, malformations and malocclusions. The dentist will also look for problems such as food traps and bleeding gums. The examiner generally uses an explorer, periodontal probe and other instruments. Fillings are also inspected, and a radiographic record of the teeth is usually made. Finally, after the dental examination the dentist constructs a personalized treatment plan for each patient.

**Lesson 12**  
**At the Dentist's**

**VOCABULARY**

**bite** [baɪt] прикус

**demand** [dɪ'mɑ:nd] вимога

**warning** ['wɔ:nɪŋ] застереження

**loose** [lu:s] хиткий (про зуб)

**reveal** [rɪ'vi:l] виявляти

**radiograph** ['reɪdɪɔgrɑ:f] рентгенограма

**replacement** [rɪ'pleɪsmənt] заміщення, заміна

**injection** [ɪn'ʤekʃ(ə)n] ін'єкція, укол

**frightened** ['fraɪt(ə)nd] наляканий

**attitude** ['ætɪt(j)u:d] ставлення

**fit** [fɪt] припасовувати (про протез)

**malocclusion** ['mɔlə'klu:ʒən] аномалія прикусу

### RULES OF READING

c + e, i, y	[s]	acid city
c (in other cases)	[k]	cup cycle
g + e, i, y	[G]	large but: <b>get, give, begin</b> [g]
g (in other cases)	[g]	big green

#### Ex.1. Read the following words:

Connective; increase; care; medical; clinic; education; doctor; cancer; come; place; certain; medicine; go; get; give; drug; negative; dosage; gel.

### WORD-BUILDING

#### Ex.2. Familiarize yourself with the following material:

##### Suffix of Noun:

**-ure** (denotes condition or phenomena)

pressure – *тиск*

#### Ex.3. Read and translate the following words:

Procedure; acupuncture; literature; structure; temperature; suture; mixture; signature.

### GRAMMAR:

#### Ex.4. Enter the Past Participle (V<sub>3</sub>) of the following verbs:

be	know
begin	lead
bring	let
choose	lose
come	make
do	tell
find	put
feel	read
get	speak
give	spend
go	take
have	think
hold	write

**Ex.5. Distinguish carefully the correct pronunciation of the following regular verbs:**

[d]	[t]	[Id]
called defined received organized observed	developed discussed noticed produced depressed	situated divided separated surrounded bounded

**Ex.6. Read the following grammar material:**

**SIMPLE TENSES**  
**(Passive Voice, Affirmative Form)**

In passive sentences, we are more interested in the object of the active sentence. This is because *who did the thing* isn't important at the moment, or because we don't know *who did it*.

"*New method is used by this scientists*". " *is used*" is passive. Compare Active and Passive Voices in the following sentences:

Voice	Subject	Predicate	Object
<b>Active Voice</b>	The scientist	uses	new method.
<b>Passive Voice</b>	New method	is used	by the scientist.

**Ex.7. Memorize the data of following table:**

**PASSIVE VOICE:**  
**to be + V<sub>3</sub>**

TENSE		SUBJECT	PREDICATE	
SIMPLE	<b>Present</b>	I he, she, it they, you, we	<b>am</b> <b>is</b> <b>are</b>	<b>V<sub>3</sub></b>
	<b>Past</b>	I, he, she, it they, you, we	<b>was</b> <b>were</b>	<b>V<sub>3</sub></b>
	<b>Future</b>	I, we he, she, it, you, they	<b>shall be</b> <b>will be</b>	<b>V<sub>3</sub></b>

**MODEL:**

The human body **is divided** into several parts. (Present Simple Tense, Passive Voice)

The operation **was performed** on yesterday. (Past Simple Tense, Passive Voice)

The disease **will be cured**. (Future Simple Tense, Passive Voice)

**Ex.8. Read and translate the following sentences into Ukrainian:**

1. The academic year is divided into two terms. 2. Many patients are examined by the physician every day. 3. The operation was performed on under general anesthesia. 4. The head is divided into the cranial and the facial parts. 5. Your lungs will be X-rayed. 6. The head and the trunk are connected by the neck. 7. The upper part of the trunk is called the chest. 8. The heart, lungs, and gullet are located in the chest. 9. These operations will be performed on by this surgeon. 10. The lectures in Anatomy is delivered on Monday. 11. Many experiments were carried out by our students. 12. The skeleton is composed of bones. 13. The upper limb is divided into some parts. 14. The major organs are located in the trunk, such as: the heart, the lungs, the stomach, the liver, the spleen, the large and small intestines, the kidneys, the gallbladder, and bladder. 15. Future doctors will be trained to be world-class experts.

**Ex.9. Turn the following sentences into the Past and Future Simple Tenses:**

1. Doctor's prescriptions are fulfilled by this patient. 2. Different medical procedures are included into physical examination. 3. This patient is directed to make blood analysis. 4. They are treated free of charge. 5. These experiments are carried out by the members of our scientific society. 6. This hospital is equipped with new devices. 7. Some new methods of treatment are published in this journal. 8. This book is written by some well-known scientists.

**Ex.10. Translate the following sentences into English:**

1. Кров'яний тиск цього пацієнта був визначений лікарем. 2. Його здоров'я було відновлене після належного лікування. 3. Нові наукові дослідження в галузі будови тканин будуть проводитися у наступному місяці. 4. Необхідний захист мозку забезпечується лицьовими кістками. 5. Нижня частина тулуба має назву черевна порожнина. 6. Шлунок, печінка, селезінка, товстий та тонкий кишечники, нирки, жовчний міхур, сечовий міхур знаходяться у черевній порожнині. 7. Основна частина грудної клітки сформована ребрами. 8. Цей медичний інститут був заснований видатним вченим.

**Ex.11. Read and translate the following phrases. Compose your own sentences using these phrases:**

New method	is used ... is experimented ...
This treatment	is proposed ... is suggested ...
This problem	is investigated ... is discussed ...

**Ex.12. Find in the text "At the dentist's" the sentences with predicates in Simple Tenses, Passive Voice and translate them into Ukrainian.**

**READING AND DEVELOPING SPEAKING SKILLS**

**Ex.13. Read VOCABULARY and memorize new words.**

**Ex.14. Compose 3-4 sentences using the words of VOCABULARY.**

**Ex.15. Insert the missing letters:**

Pat\_ent, he\_lth, tiss\_es, b\_te, g\_m, pla\_ue, ba\_teria, bl\_eding, de\_ay, resto\_ation, fill\_ngs, cro\_n, brid\_e, anest\_esia, tre\_tment, tootha\_he, sol\_tion, sur\_eon.

**Ex.16. Read and translate the following words and word combinations:**

Dental clinic, shift work, dental history, tooth loss, irritate the gums, warning signs, areas of decay, suitable, fitting a bridge, to reduce discomfort, routine procedure, correction of malocclusion, professional knowledge, nervous, unreasonable demands, friendly, reassure the patients

**Ex.17. Read the following text and translate it:**

**At the Dentist's**



Alex Brown is a dentist. He works in the Ukrainian-British dental clinic Dentstar. He does shift work. When he is on an early shift he starts at 8 a.m. and finishes at 2 p.m. Late shifts start at 3 p.m. and finish at 9 p.m.

*That is what Alex says about his work as a dentist:*

When a patient comes to me for the first time, I ask him some questions about his dental history and his health in general. I examine his teeth and surrounding tissues. I check his bite. Are there any gum diseases? This is the most common cause of tooth loss. Plaque contains millions of bacteria. They irritate the gums causing bleeding. If we ignore these warning signs, teeth can become loose. To reveal any areas of decay dentists take X-rays. By the way, dentists are the only medical professionals who interpret their own radiographs! Then I must decide what type of restoration is the most suitable for the case. Restorations can be by fillings, inlays, onlays, crowns or by replacement of a gap by fitting a bridge. We use local anesthesia to reduce discomfort. An injection is a routine procedure for a dentist, but is often an unpleasant for a patient. I always try to support those patients who are afraid of treatment. Sometimes we send our patients to consultants in orthodontics for correction of malocclusion. I think that our job requires not only good professional knowledge. A dentist must be able to get on with different kinds of people. Our patients are often nervous, frightened and sometimes even aggressive. They can make unreasonable demands, but we must be quiet, understanding and friendly. A good dentist can explain things and reassure his patients. He usually manifests a sympathetic and caring attitude. A good dentist never stops learning. And, of course, a good dentist must be able to work as part of a team!



*Now Doctor Alex Brown is talking with a patient:*

**Patient** (entering): Good morning, doctor.

**Alex:** Good morning. Sit here, please. What's the problem with you?

**Patient:** I have a terrible toothache. It seems that all my teeth on the left side are aching. I'm afraid I can't even locate the pain. It kept me awake the whole night.

**Alex:** Let's have a look at it. (*to a nurse:* Will you check the head-rest, please? Make it comfortable for the patient). Could you open your mouth a bit wider, please? Does the pain get worse when I tap this tooth?

**Patient :** Oh, yes, its unbearable. Even opening the mouth wider causes pain.

**Alex:** Spit out, please. Rinse your mouth with this disinfectant solution. Does the pain extend into the temple or the ear?

**Patient:** Yes, it seems so.

**Alex:** Let's make an X-ray of this tooth.

(*some minutes later, after examining the X-ray*).

I'm afraid you've come too late. Nothing can be done. This tooth must be extracted.

**Patient:** Are you going to extract it now?

**Alex:** No, not me. This extraction won't be so easy, so I'll send you to our surgeon. He starts today, so you'll have to wait for half an hour.

**Useful expressions:**

**To do shift work.** – Працювати позмінно

**To locate the pain** – Локалізувати біль

**Does the pain get worse when I tap this tooth?** – Чи посилюється біль при постукуванні по зубу?

**Could you open your mouth a bit wider, please?** – Відкрийте рот трохи ширше, будь ласка.

**Spit out, please.** – Сплюньте, будь ласка.

**Let's make an X-ray of this tooth.** – Давайте зробимо рентгенограму цього зуба.

**Ex.18. Translate into English:**

Ранкова зміна, стоматологічна клініка, загальний стан здоров'я, оглядати зуби, оточуючі тканини, найпоширеніша причина, бактерії, кровотеча, місцевий наркоз, звичайна процедура.

**Ex.19. Fill in the blanks using words and sentences from the previous dialogue:**

**Patient:** Good morning, doctor.

**Dentist:** \_\_\_\_\_

**Patient:** One of my upper teeth on the left is sensitive to hot and cold food.

**Dentist:** Let me see this tooth. \_\_\_\_\_

Does the pain get worse when I tap it?

**Patient:** A little bit.

**Dentist:** Let's make an \_\_\_\_\_. I think it needs long treatment.

**Ex.20. Note how the doctor starts the interview:**

What's brought you along today?

What seems to be the problem?

What is wrong with you?

What can I do for you?

**Ex.21. Read the following and make your own dialogues:**

**Information about a patient:**

1. Name, address, telephone and fax number.
2. Sex, age, occupation
3. Habits – the most common questions about habits are the following: tooth cleaning habits; what toothpaste is used; what type of toothbrush is used; smoking or not smoking.
4. Diet – because it plays an important role in dental caries. For example, caries increased most dramatically during the second part of the 19<sup>th</sup> century due to 400% increase in sugar consumption! Diet is also responsible for tooth wear.

**General health condition:**

- Known allergies
- Heart diseases
- Other diseases
- Pregnancy
- Any difficulty to stop bleeding after tooth extraction

**Previous dental treatment (helps to estimate a degree of caries risk):**

- How regularly does the patient come for check-ups?
- Are the fillings old or new?
- How often does the patient replace his/her fillings/crowns?
- Was there any periodontal treatment received?

**Ex.22. Reproduce the dialogue:**

**Elena:** Dental Clinic Dentstar, good morning.

**Patient:** Good morning. This is James Brown. I'd like an appointment with Dr.Jackson next Friday.

**Elena:** Is it for a check-up or dental work, Mr.Brown?

**Patient:** It's for a semi-annual check-up.

**Elena:** Hold on, please (after a short pause). Mr.Brown, are you there?

Dr.Jackson can see you on Friday next week, the 11<sup>th</sup> of January at 10 or 11 a.m. What time would be convenient to you?

**Patient:** Let's make it at 11.

**Elena:** OK, Mr.Brown. So your appointment is on Friday, the 11<sup>th</sup> of January.

**Patient:** Thank you. See you on Friaday.

**Elena:** Good-bye, Mr.Brown.

**Notes:**

**An appointment** – прийом

**A semi-annual check-up** – профілактичний огляд кожні півроку

**Hold on, please** – зачекайте хвилинку, будь ласка.

**Are you there?** – ви слухаєте?

**What time would be convenient to you?** – У який час вам зручно?

**Overview**

When a patient comes to the dentist for the first time, he asks him some questions about his dental history and his health in general. Then he examines his teeth and surrounding tissues, checks his bite. To reveal any areas of decay dentists take X-rays. Then he must decide what type of restoration is the most suitable for the case. Restorations can be by fillings, inlays, onlays, crowns or by replacement of a gap by fitting a bridge. The dentist uses local anesthesia to reduce discomfort. Sometimes the dentists send their patients to consultants in orthodontics for correction of malocclusion. Dentist's job requires not only good professional knowledge. A dentist must be able to get on with different kinds of people. The dentist must be quiet, understanding and friendly. And, of course, a good dentist must be able to work as part of a team!

**Lesson 13**  
**Oral Hygiene**

**VOCABULARY**

**hygiene** ['haɪdʒi:n] гігієна

**maintain** [meɪn'teɪn] підтримувати, дотримуватись

**floss** [flɒs] зубна нитка

**check-up** ['tʃekʌp] огляд, перевірка

**emergency** [ɪ'mɜ:dʒ(ə)nsɪ] невідкладна допомога, критичний стан, крайня необхідність

**fluoride** ['fluɔːrɪd] фторид

**avoid** [ə'vɔɪd] уникати, ухилятися

**stick** [stɪk] приклеюватися, прилипати

**deposit** [dɪ'pɒzɪt] відкладення

**rinse** [rɪns] полоскати, засіб для ополіскування

**RULES OF READING**

Letters	Sounds	Examples	Notes
s	[s]	son soft	на початку і в кінці слова після глухих приголосних
s	[z]	nose goes	між голосними і в кінці слова після дзвінких приголосних і голосних
x	[ks]	text six	у кінці слова та перед глухим приголосним
x	[gz]	exact exam	якщо перед буквою <b>x</b> є буква <b>e</b> та за буквою <b>x</b> йде наголошений голосний

**Ex.1. Read the following words:**

Suppose; must; meals; dose; prescription; mustard; several; vitamin; surgeon; pulse; virus; text; mixture; complex; examiner.

**WORD-BUILDING**

**Ex.2. Familiarize yourself with the following material:**

**Suffixes of Adjectives:**

**-able, -ible**

to break *ломати* – breakable *ламкий*

to express *виражати* – expressible *виразний*

**Ex.3. Read and translate the following words:**

Comfortable; honorable; treatable; favorable; valuable; considerable; movable; invulnerable; responsible; possible; susceptible.

**GRAMMAR:**

**Ex. 4. Familiarize yourself with the data of the following table:**

**SIMPLE TENSES**

(Passive Voice, Interrogative Form)

TENSE	QUESTION WORD	AUXILIARY VERB	SUBJECT	VERB
Present Simple Tense	What	am	I	V <sub>3</sub>
	Where	is	he, she, it	
	When	are	we, you, they	
Past Simple Tense	Why	was	I, he, she, it	V <sub>3</sub>
	How	were	they, you, we	
Future Simple Tense	How many	shall will	I, we	be + V <sub>3</sub>
	How much		they, she, he, it, you	
	Whom			

**General Questions**

**Is** the abdomen **subdivided** into four quadrants? (Present Simple Tense, Passive Voice)

**Was** the artificial metal joint **used** in 1678? (Past Simple Tense, Passive Voice)

**Will** the operation **be performed** on by the surgeon? (Future Simple Tense, Passive Voice)

**Special Questions**

How **are** the bones **classified**? (Present Simple Tense, Passive Voice)

What **is** the muscular contraction **controlled** with? (Present Simple Tense, Passive Voice)

**BUT:** What organs **are located** in the chest? (A question to the subject)

**Ex.5. Read and translate the following interrogative sentences into Ukrainian:**

1. Is the trunk divided into three large cavities?
2. Is the thoracic cavity surrounded by the rib cage?
3. Where is the heart located?
4. What organs are located in the abdomen?
5. What parts is the lower limb divided into?

**Ex.6. Make the following sentences interrogative:**

1. The upper extremity is formed by the arm, forearm, and hand. 2. The bones of the skeleton are connected together by the joints or by the cartilages. 3. The skeleton is composed of bones. 4. The upper extremity is connected with the trunk by the shoulder girdle. 5. The lectures in Physiology are attended by all the students. 6. Your articles are often published. 7. A new hospital will be built here. 8. Different problems were discussed at the last meeting. 9. These books were taken from the library yesterday.

**Ex.7. Translate the following questions into English:**

1. Де знаходяться легені? 2. В якому журналі були описані ці нові методи лікування? 3. Скільки пацієнтів було вчора оглянуто? 4. До якого поясу прикріплюється верхня кінцівка? 5. На скільки частин поділяється тіло людини?

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.8. Insert the missing letters and translate the following words:**

Hy\_iene, c\_re, brus\_ing, tong\_e, g\_m, hyg\_enist, toothp\_ste, pla\_ue, pra\_tice, deca\_ b\_eath, cal\_ulus, car\_es, bact\_ria, tootha\_he, cro\_n.

**Ex.9. Translate the following words and word-combinations into Ukrainian:**

Dental hygiene, dental care, health problems, regularly, properly, overall well-being, twice a year, however, prevent, fluoride toothpaste, remove plaque, gum disease, tooth decay, oral discomfort, oral tissues, bad breath, causes, surface of teeth, saliva, tooth extractions, dental bridges.

**Ex.10. Read the following text:**

### Dental hygiene

Dental hygiene or oral hygiene is the process of maintaining proper dental care to avoid oral health problems.

It includes brushing the teeth, flossing, cleaning the tongue, and visiting the dentist regularly. Maintaining good oral hygiene is one of the most important things you can do for your teeth and gums. Healthy teeth not only enable you to look and feel good, they make it possible to eat and speak properly. Good oral health is important to your overall well-being. It is recommended that you see your dentist and dental hygienist at least twice a year however the dental care that you provide on your own in-house is an integral part of maintaining good oral health. A good in-house regimen supplemented by regular dentist check-ups and cleanings is the best way to prevent dental emergencies.



Brushing with fluoride toothpaste is recommended at least twice a day to remove plaque and the remnants of food and drink from our teeth and gums. Flossing once a day is an essential practice to avoid gum disease and preventing tooth decay. An oral rinse also helps promote good oral hygiene as it will reduce oral discomfort, provide moisture to oral tissues and help with bad breath.

Good oral hygiene helps to prevent dental problems - mainly plaque and calculus which are the main causes of gum disease and caries (tooth decay). Dental plaque is a soft whitish deposit that forms on the surface of teeth. It forms when bacteria combine with food and saliva. Plaque contains many types of bacteria. You can remove plaque by good oral hygiene. Calculus, sometimes called

tartar, is hardened calcified plaque. It sticks firmly to teeth. Generally, it can only be removed with special instruments by a dentist or dental hygienist.

Practicing the oral hygiene habits are great ways to maintain proper oral health however good habits alone will not remove all the plaque that builds up over time. This is why it is necessary to see your dentist and dental hygienist regularly to remove the plaque to lower your risk of toothaches, cavities, periodontal disease or even the loss of all your teeth. By removing plaque you reduce your chances of needing root canals, tooth extractions, dental bridges, crowns and more. Your dentist and dental hygienist will ensure that you will receive the necessary treatment to maintain good oral health of your teeth, mouth and gums and keep you smiling.

**Ex.11. Translate the following words and word-combinations into English:**

Карієс, зубний камінь, мікробна бляшка, невід'ємна частина, запобігти, видалення зубів, регулярний огляд, залишки їжі, поверхня зубів, раз на день, двічі на день, чищення зубів за допомогою зубної нитки, зменшити дискомфорт, неприємний запах з рота, звичка, ясна, втрата всіх зубів, отримати необхідне лікування, зубний біль.

**Ex.12. Answer the following questions:**

1. What does dental hygiene include? 2. How often is it recommended to see the dentist and dental hygienist? 3. What is the best way to prevent dental emergencies? 4. What is the purpose of brushing with fluoride toothpaste? 5. Why is flossing recommended? 6. What is the benefit of oral rinse? 7. What dental problems can good oral hygiene help to prevent?

**Ex.13. Complete the following sentences with the words given below:**

The practise of \_\_\_\_\_ hygiene is important because it \_\_\_\_\_ the build up of dental \_\_\_\_\_. Plaque causes the two most common \_\_\_\_\_ found in the mouth, dental decay and \_\_\_\_\_ disease. The longer dental plaque is permitted to \_\_\_\_\_ to the teeth, the greater is the risk of dental disease. To prevent and \_\_\_\_\_ these diseases, dental plaque must be removed every day, by thorough \_\_\_\_\_ and flossing.

*(brushing, stick, diseases, prevents, oral, plaque, gum, treat)*

**Ex.14. Read the following abstract and translate it:**

Some common dental problems related to poor oral hygiene include caries (tooth decay), gum diseases, tooth erosion. Caries is when holes form in parts of the enamel of a tooth. A main cause of caries is due to a build-up of plaque. If you have tooth decay you may need fillings, crowns or inlays. Gum disease means infection or inflammation of the tissues that surround the teeth. Most cases of gum disease are plaque-related. Plaque contains many different types of bacteria and a build-up of some types of bacteria is associated with developing gum disease. Tooth erosion is a common problem. It is the gradual erosion of tooth enamel by the action of acid on the teeth. This is different to damage caused by bacteria resulting in tooth decay and caries. Tooth erosion affects the entire surface of the tooth.

**Ex.15. Make up the sentences using the following words and word-combinations:**

1. day /teeth/ your/ fluoride/ every/ with/ a/ Brush/ toothpaste. 2. Clean/ day/ floss/ between/ teeth/ every/ with/ your. 3. Tobacco/chew/ Don't/ or/ smoke. 4. your/ health/ dentist/ regularly/ See/ or/ oral/ professional. 5. Fluoride/ a/ Rinse / daily/ mouthwash/ with.

**Ex.16. Read the following text and retell it:**

**Routine oral hygiene**

It is important to get into a regular habit of good oral hygiene, in particular, regular teeth brushing and cleaning between teeth.

Brush your teeth at least twice a day. Use a soft-tufted brush and a toothpaste that contains fluoride. The head of the brush should be small enough to get into all the areas of the mouth. Spend at least two minutes brushing, covering all areas (the inside, outside, and biting areas of each tooth). Pay particular attention to where the teeth meet the gum. Get a new toothbrush every 3-4 months.

Ideally, brush your teeth either just before eating, or at least an hour after eating. The reason for this is to help prevent tooth erosion. Many foods contain acids. After your teeth are exposed to acid, the enamel is a little softened. But, the action of calcium and other mineral salts in the saliva can help to counteract and reverse this softening. Therefore, do not brush teeth immediately after eating when the enamel tends to be at its softest. In particular, after eating or drinking acid foods and drinks. It is best to wait at least an hour after eating or drinking anything before brushing.



Clean between your teeth after brushing once a day, but ideally twice a day. This is to remove plaque from between teeth. Dental floss is commonly used to do this. However, some studies suggest that small interdental brushes may do a better job than floss. The aim is to clean the sides of the teeth where a toothbrush cannot get to, and clear the spaces between teeth (the interdental spaces) of debris. The gums may bleed a little

when you first begin to clean between your teeth. This should settle in a few days. If it persists then see a dentist, as regular bleeding may indicate gum disease.

Sugars and sugary foods in the mouth are the main foods that bacteria thrive on to make acid which can contribute to tooth decay. Acid foods and drinks are also a main factor in tooth erosion. So, limit the amount of sugary foods and drinks that you have. In particular, don't snack on sugary foods. Try to reduce the amount of acid in contact with your teeth. So, limit fizzy drinks (including fizzy water) and fruit juices as these tend to be acidic. Brush your teeth at least an hour after eating or drinking anything.

Many people also use an antiseptic mouthwash each day to help prevent gum disease. In particular, for those who are unable to use a toothbrush, regular rinsing with an antiseptic mouthwash will help to clean the teeth. Many people also clean their tongue after cleaning their teeth. You can do this with a toothbrush. You can also buy a special plastic tongue scraper from pharmacies. If you smoke, you should aim to stop smoking. Smoking is a major risk factor for developing gum disease. If children need medicines, wherever possible use sugar-free medicines.

Some people chew sugar-free gum after each meal. Chewing gum increases the flow of saliva. Saliva helps to flush the mouth to help clear any debris and acid remaining from the meal. Children should be taught good oral hygiene as young as possible.

**Ex.17. Write out key words of the text " Routine oral hygiene".**

**Ex.18. Compose the plan to the text " Routine oral hygiene".**

**Ex.19. Narrate the text " Routine oral hygiene".**

**These phrases will help you to narrate the text:**

The text describes ...

I'd like to start with a description of ...

It is important to point out that ...

Let me pass to the description of ...

The author makes it clear that...

In conclusion let me remind again that ...

It is necessary to make further investigation of ...

У тексті описується ...

Я хотів би розпочати з опису ...

Важливо вказати, що ...

Дозвольте перейти до опису ...

Автор чітко стверджує, що ...

На завершення дозвольте нагадати знову, що ...

Необхідно здійснити подальше дослідження ...

**Ex.20. Make up a dialogue " Routine oral hygiene".**

**Ex.21. Translate the following sentences into English:**

Have regular dental checks at intervals recommended by your dentist (this is normally at least once a year). A dentist can detect a build-up of plaque and remove calculus. Early or mild gingivitis can be detected and treated to prevent the more severe periodontitis. A dentist can also advise about special coating of children's teeth to help prevent tooth decay.

In addition to the benefits to your teeth, good mouth hygiene may have even further benefits. There is some evidence to suggest that poor oral hygiene is associated with an increased risk of developing heart diseases such as heart attack and angina, and other blood vessel-related problems (cardiovascular disease).

**Ex.22. Read the following data and speak on the methods of toothbrushing:**

**Proper Brushing**

Proper brushing is essential for cleaning teeth and gums effectively. Use a toothbrush with soft, nylon, round-ended bristles that will not scratch and irritate teeth or damage gums.

- Place bristles along the gumline at a 45-degree angle. Bristles should contact both the tooth surface and the gumline.



- Gently brush the outer tooth surfaces of 2-3 teeth using a vibrating back & forth rolling motion. Move brush to the next group of 2-3 teeth and repeat.

- Maintain a 45-degree angle with bristles contacting the tooth surface and gumline. Gently brush using back, forth, and rolling motion along all of the inner tooth surfaces.



- Tilt brush vertically behind the front teeth. Make several up & down strokes using the front half of the brush.






- Place the brush against the biting surface of the teeth & use a gentle back & forth scrubbing motion. Brush the tongue from back to front to remove odor-producing bacteria.



**Ex.23. Read the following and speak on your own oral hygiene habits:**

5 Steps to a Healthy Smile



	Don't Wait Until It's Too Late	Visit your dentist regularly for preventative checkups and cleanings. Your dentist is trained to see the hidden problems you can't.
	Floss is the Boss	Floss your teeth once everyday. Dental floss reaches many areas that your toothbrush can't.
	Eat and Drink But Be Sure to Think	It's important to eat a well-balanced diet and avoid excessive snacking between meals - especially sticky, sweet things like candy.
	Be Good to Those Gums	Keep an eye on your gums for signs of gum disease. Puffy, red or tender gums, gums that bleed or persistent bad breath are signs that you need to see your dentist right away.
	It Takes a While To Brush Your Smile	Brush your teeth carefully at least once a day. Remember, a thorough job takes 2 1/2 to 3 minutes.

## OVERVIEW

Dental hygiene or oral hygiene is the process of maintaining proper dental care to avoid oral health problems. It includes brushing the teeth, flossing, cleaning the tongue, and visiting the dentist regularly. It is recommended that you see your dentist and dental hygienist at least twice a year. Brushing with fluoride toothpaste is recommended at least twice a day to remove plaque and the remnants of food and drink from our teeth and gums. Flossing once a day is an essential practice to avoid gum disease and preventing tooth decay. Good oral hygiene helps to prevent dental problems - mainly plaque and calculus which are the main causes of gum disease and caries (tooth decay). Practicing the oral hygiene habits are great ways to maintain proper oral health.

## Lesson 14 Vitamins and Minerals

### VOCABULARY

**dietary** ['daɪət(ə)rɪ] дієтичний  
**supplement** ['sʌplɪmənt] добавка  
**vitamin** ['vɪtəˌmɪn], ['vaɪ-] вітамін  
**deficient** [dɪ'fɪʃ(ə)nt] недостатній  
**intake** ['ɪnteɪk] споживання  
**to accomplish** [ə'kɒmplɪʃ] виконувати  
**to reinforce** ['rɪɪn'fɔ:s] підсилювати  
**purpose** ['pɜ:pəs] ціль

**water-soluble** ['sɔljəbl] водорозчинний  
**fat-soluble** - жиророзчинний  
**adipose** ['ædɪpəs] жировий  
**to excrete** [ɪks'kri:t], [eks-] виділяти  
**property** ['prɒpətɪ] властивість  
**precursor** ['pri'kɜ:sə] попередник  
**to scrape** [skreɪp] шкрябати  
**insufficient** [ɪnsə'fɪʃ(ə)nt] недостатній

**attempt** [ə'tempt] спроба

**consumption** [kən'sʌm(p)ʃ(ə)n] споживання

### RULES OF READING

Letters	Sounds	Examples
j	[ ʃ ]	injection
tion	[ ʃ ]	definition
ssion	[ ʃ ]	session
ture	[ ʃ ]	structure
qu	[ ʃ ]	adequate
dia	[ ʃ ]	diaphragm
bi	[ ʃ ]	biaxial

**Ex.1. Read the following words:**

Injection, junction, junior, restoration, definition, inspection, condition, session, obsession, structure, capture, adventure, adequate, quarter, diaphragm, diabetes, diameter, biaxial, biannual, bias.

### WORD-BUILDING

**Ex.2. Familiarize yourself with the following material:**

**Suffixes of Noun:**

**-ion**

- an action or process, or the result of an action or process  
fermentation – *ферментація*, consumption – *споживання*  
- a state or condition  
intoxication – *інтоксикація*, condition – *стан*

**-ation, -tion**

- an action or process  
hibernation- *бездіяльність*  
- the result of the action or process  
accumulation – *накопичення*  
- a state or quality  
exhilaration – *збудження*  
- **cyto** (forming words regarding to cells)  
cytopathology – *клітинна патологія*

**Ex.3. Read and translate the following words:**

**A.** termination, deletion, motion, action, junction, connection, derivation.

**B.** cytopathology, cytochemistry, cytoplasm, cytosin, cytotoxic, cytotropic.

### GRAMMAR

**Ex.4. Read the following grammar material:**

#### PERFECT TENSES

#### (ACTIVE VOICE, AFFIRMATIVE FORM)

#### to have + Participle II (V<sub>3</sub>)

Present Perfect Tense (Active Voice)	<b>have</b>	+ V <sub>3</sub>	You have written a book.
	<b>has</b>		She has written a book.
Past Perfect Tense (Active Voice)	<b>had</b>	+ V <sub>3</sub>	They had written a book.
Future Perfect Tense (Active Voice)	<b>shall have</b>	+ V <sub>3</sub>	I shall have written a book.
	<b>will have</b>		This doctor will have written

**Ex.5. Read and translate the following sentences:**

1. Certain vitamins have contributed to the production of blood cells, hormones, genetic material, and chemicals of the nervous system. 2. Research works of many scientists have helped to estimate the cause of this disease. 3. Dentists had not determined the cause of the pain by 5 p.m. 4. Tomorrow they will have filled in the case history. 5. The surgeon has already extracted the wisdom tooth.

**MODAL VERBS  
SHOULD and WOULD**

**Ex.6. Read the following grammar material:**

**Should and Shouldn't** - Use *We use should and shouldn't to give advice or to talk about what we think is right or wrong.*

You should means something like I think it is a good idea for you to do it.

You shouldn't means something like I think it is a bad idea for you to do it.

*Should is used to express the opinion of a speaker and often follows I think or I don't think.*

**Examples:**

You look tired. I think you should take a few days off.

Alice works very long hours. She should to talk to her boss.

- I have an English test tomorrow.

- I shouldn't worry if I were you. You have worked really hard.

**Should - Quick Grammar Note**

- *To give advice to someone you can also say:*

I should do it if I were you.

I shouldn't be so rude, if I were you.

- *When you regret not doing something in the past, you can say:*

I shouldn't have spoken to him like that.

I should have apologized earlier.

**Would and Wouldn't**

*Would can be used in some forms that are viewed as more formal or polite:*

**Examples:**

"I would like a glass of water" compared with "I want a glass of water"; and "Would you get me a glass of water?" compared with the bare "Get me a glass of water."

**Would - Quick Grammar Note**

Uses of "would" (short form: 'd, negative: would not, wouldn't)

**- As the past form of "will" in reported speech:**

"I will handle it myself." --> "He said he would handle it himself."

- *To talk about an imagined situation:*

"What would you do if you were a millionaire?"

"I would have cleaned the house, but I was too tired."

- *To make a polite request:*

"Would you mind closing the window?"

"Would you get me the paper, please?"

**- To invite someone, or offer something, politely**

"Would you like a drink?"

"We are going for a walk, would you like to join us?"

**- To say that you want something or want to do something**

I would like = a polite way of saying "I want."

I would hate = a polite way of saying "I don't want."

**READING AND DEVELOPING SPEAKING SKILLS**

**Ex.7. Read VOCABULARY and memorize new words.**

**Ex.8. Compose 4-5 sentences using the words of VOCABULARY.**

**Ex.9. Read and translate the following words:**

Deficient, vitamin, intake, cause, healthy, teeth, gums, disease, prevent, effect, accomplish, ingesting, vitamins, minerals, metabolism, reinforce, body, mouth, bones, jaw, dental, professionals, advise, poor, oral, hygiene, brushing, flossing, rinsing, leading, cause, decay, water-soluble, fat-soluble, smoking, chewing, affect, hygiene, habits, breath, damage, enamel, case, cancer, knowledge.

**Ex.10. Read and translate the following text:**

**Dietary supplements: vitamins and minerals  
for healthy teeth and gums**

Deficient vitamin intake can cause problems for healthy teeth. Teeth and gums move through many changes as we age and often become diseased or distressed without us knowing. Preventing disease and easing the typical effects of aging can be accomplished by ingesting the right vitamins and minerals along with caring properly for your teeth and gums. Normal metabolism, balanced cell function and reinforced health affects the whole of the body and its processes and this includes your mouth.

Each vitamin has a purpose and a function to fulfill within the body. If a vitamin is not found in the body in a balanced state then a deficiency disease can take hold. At this point the body will need help and not only with the vitamin that is deficient. When a body is out of balance it attempts to right it self and can often pull heavily on other systems as well as other vitamins and minerals. Healthy teeth and gums require a balanced diet and vitamin intake, however, there are several specific vitamins that are vital to healthy teeth and gums. These are A, C and D. Vitamins A and D are fat-soluble vitamins. This means they are stored in the liver and adipose tissue of your body and are not easily excreted. Ingesting toxic levels of these vitamins is possible so do not add these as additional supplements to your daily vitamin intake without consulting a physician.



Vitamin A has a lot to do with the healthy formation of teeth and skin. It also aids in the formation and maintenance of mucous membranes and soft tissue, not to mention good vision. Vitamin A has a precursor called beta-carotene that has antioxidant properties. Antioxidant properties aid the body in dealing with chemicals called free radicals. Free radicals cause the body, in general, to decay. Eating foods rich in beta-carotene will help your teeth stay healthy.

Vitamin D is created in the body after exposure to sunshine. It only takes ten to fifteen minutes of exposure about three times a week to get enough sunshine to produce what your body needs in the way of Vitamin D. Vitamin D promotes calcium absorption and calcium absorption is necessary to develop and maintain healthy teeth and bones. Vitamin D also maintains healthy levels of the minerals calcium and phosphorous in the blood stream. It is essential for children to get

adequate Vitamin D because it helps them to form strong bones and teeth. Vitamin D is often added to milk because children need so much more of it than adults do.

Vitamin C is a water-soluble vitamin. It is a vitamin that should be ingested daily. Water-soluble vitamins are washed out of the body once the body has what it needs. Vitamin C, also known as ascorbic acid, promotes healthy teeth and gums, assists the absorption of iron and maintains healthy connective tissue. If you cut or scrape your skin, Vitamin C aids in the healing of those wounds. It also is an antioxidant. Of course, maintaining adequate levels of all vitamins in the body is ultimately necessary to the maintenance of a healthy mouth. The body functions as a whole so any deficiency will tax the other systems requiring the deficient vitamin. Supplements, together with good oral hygiene, can aid in decreasing the incidence of dental cavities, bad breath and gum disease. Vitamin C also promotes healthy capillaries, which aids oral tissue in staying healthy. Insufficient consumption of Vitamin C may lead to oral health problems like swollen and bleeding gums and loss of teeth can result.

**Ex.11. Translate the following words into English:**

Вітаміни, жировий, водорозчинний, ясна, карієс, зуби, причина, хвороба, лікувати, видаляти, сполучна тканина, здоровий, шкрябати, чистити, зубна щітка, рана, дорослий, утворення, властивості, добавка, дієтичний, дефіцит, спроба, полоскати, стоматолог.

**Ex.12. Answer the following questions:**

1. What are vitamins? 2. What is the function of the vitamin in dentistry? 3. What vitamins have you known from the text? 4. What classes are the vitamins divided into? 5. What do you know about vitamin A? 6. What is the importance of vitamin D for teeth and gums? 7. What is the necessity of vitamin C for gums and teeth?

**Ex.13. Read the following text and say the main idea.**

**WHAT TO EAT**

All bodies need vitamins to promote growth and health. Some vitamins are needed because the body cannot make them at all or makes them in insufficient amounts so food intake must supply them. To get your Vitamin A, eat dark green and yellow fruits and vegetables, eggs, low-fat dairy products, and liver. Vitamin D is taken into the body by eating egg yolks, fatty fish (like tuna and salmon, sardines and herring), and drinking fortified milk. Getting your daily Vitamin C can be accomplished by eating citrus fruits, tomatoes, melons, berries, red peppers, green peppers, and broccoli. Proper calcium in your diet can be provided by including yogurt or other dairy products, cheese, tofu, vegetables such as broccoli and peas, beans, enriched grains as well as seeds and nuts.

**WHAT NOT TO EAT**

Stay away from foods that are high in calories, salt, sugar, and the wrong kinds of fat such as fast foods or processed and pre-packaged foods. Most meals that fall into this category are deficient in essential nutrients and can pack on the pounds quickly. Salt and sugar interfere with the body's metabolism by altering insulin processes and blood pressure among other destructive behaviors. Tooth decay and gum disease should be watched carefully if you fill your diet with fast foods or processed foods. The sugars included in these foods can cause tooth decay to increase rapidly.

**Ex.14. Speak on the benefits of vitamins in Dentistry.**

**Ex.15. Read the text "Minerals" and translate it.**

## Minerals

Just like vitamins, minerals help your body grow, develop, and stay healthy. The body uses minerals to perform many different functions — from building strong bones to transmitting nerve impulses. Some minerals are even used to make hormones or maintain a normal heartbeat.

The two kinds of minerals are: macrominerals and trace minerals. Macro means "large" in Greek (and your body needs larger amounts of macrominerals than trace minerals). The macromineral group is made up of calcium, phosphorus, magnesium, sodium, potassium, chloride, and sulfur.

A trace of something means that there is only a little of it. So even though your body needs trace minerals, it needs just a tiny bit of each one. Scientists aren't even sure how much of these minerals you need each day. Trace minerals includes iron, manganese, copper, iodine, zinc, cobalt, fluoride, and selenium.



Calcium is the top macromineral when it comes to your bones. This mineral helps build strong bones and it also helps build strong, healthy teeth. Such food are enriched with calcium: dairy products, such as milk, cheese, and yogurt, canned salmon and sardines with bones, leafy green vegetables, such as broccoli, calcium-fortified foods — from orange juice to cereals and crackers.

In conjunction with calcium you need adequate levels of phosphorus. These two minerals work hand-in-hand to make your bones and teeth stronger. Investigate fluoride, magnesium and other minerals as necessary to strong teeth.

**Ex.16. Make up questions based on the text “Minerals”.**

**Ex.17. Speak on the importance of the minerals.**

**Ex.18. Write a short summary about minerals.**

### Overview

A vitamin is an organic compound required as a vital nutrient in tiny amount by the organism. Deficient vitamin intake can cause problems for healthy teeth. Healthy teeth and gums require a balanced diet and vitamin intake. There are several specific vitamins that are vital to healthy teeth and gums. These are A, C and D. Vitamins A and D are fat-soluble vitamins. This means they are stored in the liver and adipose tissue of your body and are not easily excreted. Vitamin A has a lot to do with the healthy formation of teeth and skin. It also aids in the formation and maintenance of mucous membranes and soft tissue. Vitamin D promotes calcium absorption and calcium absorption is necessary to develop and maintain healthy teeth and bones. Vitamin C is a water-soluble vitamin. Vitamin C promotes healthy teeth and gums, assists the absorption of iron and maintains healthy connective tissue. Minerals help build strong bones and it also helps build strong, healthy teeth. The two kinds of minerals are: macrominerals - calcium, phosphorus, magnesium, sodium, potassium, chloride, and sulfur, and trace minerals - iron, manganese, copper, iodine, zinc, cobalt, fluoride, and selenium.

## Lesson 15 Analgesics in Dentistry

### VOCABULARY

**analgesic** [ˈænəlˈdʒiːzɪk] анальгетик, знеболююче

**relieve** [rɪˈliːv] полегшувати

**fever** [ˈfiːvə] лихоманка, жар

**moderate** [ˈmɒd(ə)rət] помірний

**irritation** [ˈɪrɪˈteɪʃ(ə)n] подразнення

**boost** [buːst] підвищувати, підтримувати

**tablet** [ˈtæblət] таблетка

**capsule** [ˈkæpsjuːl] капсула

**severe** [sɪ'viə] тяжкий, сильний

**approval** [ə'pru:v(ə)l] дозвіл

**opioid** [ɒpɪ'ɔɪd] опіоїд, опіум, синтетичний наркотичний препарат

**conventional** [kən'ven(t)ʃ(ə)n(ə)l] традиційний, звичайний

### RULES OF READING

**Ex.1. Read the following words:**

Write; wrong; whole; who; white; when; where.

### WORD-BUILDING

**Ex.2. Familiarize yourself with the following material:**

**Suffix of Adjectives:**

**-ant (-ent)**

to depend *залежати* – dependent *залежний*

to resist *опиратися* – resistant *опірний, здатний опиратися*

**Ex.3. Read and translate the following words:**

Important; constant; prominent; different; resistant; independent; ancient.

### GRAMMAR:

#### PERFECT TENSES

(Active Voice, Affirmative Form)

**Ex.4. Read and translate the following sentences and determine their tense-forms:**

1. He has estimated that pain management remains an important consideration in dental care and patient management. 2. Another approach has involved combining analgesics that target both peripheral and central pain pathways. 3. Recent studies have shown that these drugs can reduce deaths from various diseases. 4. Research works have given the possibility to find out that pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage. 5. Physiologists have classified conventional analgesics into opioids and nonopioids

#### PERFECT TENSES

(Active Voice, Interrogative Form)

**Ex.5. Familiarize yourself with the data of the following table:**

Tense	Questioning word	Auxiliary verb	Subject	Predicate	Example
Present Perfect Tense	What Why Where How many	<b>have</b>  <b>has</b>	I, you, we they  he, she, it	<b>V3</b>	What <b>has</b> the scientist <b>determined</b> this year?
Past Perfect Tense	How much	<b>had</b>	I, he, she, it, you, we, they	<b>V3</b>	How many parts <b>had</b> the cell <b>divided</b> into by 5 o'clock yesterday?
Future Perfect Tense		<b>shall</b>  <b>will</b>	I, we  he, she, it, you, they	<b>have + V3</b>	What text <b>will</b> Helen <b>have translated</b> by 3 o'clock tomorrow?

**Ex.6. Translate the following interrogative sentences into Ukrainian:**

1. Has the computer analyzed the patient's condition? 2. Have these authors published their medical articles? 3. What inventions in dentistry has Black made? 4. What hospitals have the Romans established? 5. What countries has the child mortality declined in during the last decade? 6. Why have they used these methods of treatment?

**Ex.7. Make the following sentences interrogative:**

1. The practitioner has combined drugs when managing moderate to severe pain. 2. Physiologists have estimated that nervous tissue conducts electrical signals. 3. They have noted excessive activity of tissues. 4. The scientists have discussed physiological changes occurring during disease. 5. By 2020, the number of people over 60 will have grown to one billion. 6. The physiologists have determined the structure of the bone. 7. Acute pain has caused the patient to seek help from healthcare professionals. 8. A significant amount of research has focused on determining the processes that initiate tooth development. 9. The organic matrix has contained the material needed for dentine formation. 10. The patient has complained of bad toothache and high temperature.

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.8. Insert the missing letters:**

Tabl\_t, convent\_onal, fe\_er, r\_lieve, de\_tist, pres\_ription, stomach\_, dru\_s, deca\_, infla\_mation, app\_intment, pro\_edure, tre\_tment, ca\_se, pa\_n, anal\_esic.

**Ex.9. Translate the following words and word-combinations into Ukrainian:**

Age groups, liquid preparation, gastric irritation, tooth decay, blood vessels, minor discomfort, more comfortable, dental procedures, dental treatment, to ease pain, significant, pharmacological features, severe pain, combine drugs, mechanisms of action, varying degrees, the feeling of the pain, cure the problem, substance.

**Ex.10. Mind the pronunciation of the following words and word-combinations:**

Morphine ['mɔ:fi:n], acetaminophen [ə'sɪtə'mɪnəfən], steroid ['sterɔɪd], ibuprofen [ɪbu'prɔ:fən], paracetamol [ˌpærə'sɪ:təməʊl], codeine ['kəʊdi:n], tylenol ['tælənɒl]

**Ex.11. Read the following text:**

### Analgesics or Pain Relievers

An analgesic is a pain relieving substance. It does not cure the problem that causes the pain, but reduces the feeling of the pain.

Conventional analgesics are classified as opioids and nonopioids, but the older terms “narcotic” and “non-narcotic” continue to be used interchangeably. Current researches have shown that both classes have varying degrees of central and peripheral action. The primary feature that distinguishes these 2 classes of analgesics is their mechanisms of action. Nonopioids include acetaminophen and the nonsteroidal anti-inflammatory drugs (NSAIDs). Opioids are represented by morphine. It is rational for the practitioner to combine drugs from these classes when managing moderate to severe pain. To select combination regimens wisely, it is necessary to understand the significant pharmacological features of each category alone.

Analgesics are used as short term measures to ease pain before, during and after dental treatment. Some dental procedures can result in pain and discomfort after treatment. Pain relievers play a part in making the treatment more comfortable. An analgesic taken before a dental appointment can relieve minor discomfort or stress.

Severe dental pain is usually caused by the inflammation of the nerves and blood vessels in and around the tooth. This is usually associated with tooth decay.



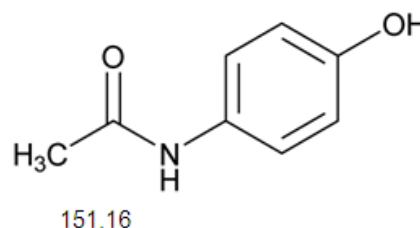
Inflammation is the cause of most dental pain. Anti-inflammatory drugs are effective against such pain. Aspirin and Ibuprofen are anti-inflammatory in their action.

The most commonly used analgesics are:

- Acetaminophen, also known as Paracetamol or Tylenol
- Aspirin
- Codeine
- Ibuprofen

#### Acetaminophen or Paracetamol:

- It reduces pain and fevers.
- It has no blood-thinning side effects.
- It does not cause gastric irritation.
- Children from two months of age can be given a liquid preparation.
- There is an appropriate dose for all age groups.



#### Aspirin

- It reduces fevers and pain.
- It has anti-inflammatory properties.
- It acts as a blood-thinner.
- It can cause stomach irritation.
- It is not recommended for children under twelve years.
- People with stomach ulcers, or on blood thinning drugs, should not take aspirin for pain.



#### Codeine

- Codeine is a very powerful pain reliever.
- Strong doses can control very severe pain.
- It is often combined with other analgesics to boost their effectiveness for pain relief.
- It is constipating.

#### Ibuprofen

- Ibuprofen is a pain reliever and an anti-inflammatory drug.
- It is available for all age groups.
- It is not constipating, and there are no adverse gastric side effects.



Many analgesic preparations can be bought without a prescription. Caution is nevertheless necessary. Several analgesics are very often combined in a single tablet or capsule. You may not be aware of the ingredients of your pain-relieving tablets or capsules. It is therefore most important that they should only be taken with the knowledge and approval of your doctor or dentist. This is particularly true if you are taking other medications as well.

#### Ex.12. Answer the following questions:

1. What is an analgesic?
2. What part do analgesics play in reducing dental pain?
3. What is the main cause of severe dental pain?
4. What is an anti-inflammatory drug?
5. Which are the anti-inflammatory drugs?
6. What are the most commonly used analgesics?
7. Is it safe to take analgesics without dental or medical advice?

#### Ex.13. Insert the missing prepositions (with, of, for) and translate:

Patients typically associate dental care \_\_\_\_\_ pain. Pain has both physiological and psychological components, and an experience \_\_\_\_\_ poorly managed pain related to dental treatment can lead patients to avoid or postpone treatment, as well as make them more difficult to treat and less likely to comply with prescribed regimens. Medications that reduce pain improve clinical outcomes. The development \_\_\_\_\_ new pain management strategies affords dental

clinicians with additional treatment options \_\_\_\_\_ acute pain management . Preoperative administration of some analgesics, for example, has been shown to reduce the onset \_\_\_\_\_ postoperative pain. Another approach involves combining analgesics that target both peripheral and central pain pathways to deliver comparable analgesia at lower doses of the component drugs. Combining drugs \_\_\_\_\_ different time to onset or duration of action also can improve the range \_\_\_\_\_ analgesic effect. Combining analgesics with differing sites of action, modes of action, onset and duration, in other words, can greatly enhance their capacity to minimize pain, be tolerated better and reduce recovery time.

**Ex.14. Insert the missing words given below:**

The \_\_\_\_\_ surgeon is often required to diagnose and treat \_\_\_\_\_ arising from the teeth, jaws and associated \_\_\_\_\_. The \_\_\_\_\_ of most of this pain can often be easily recognized and treated by \_\_\_\_\_ measures. However, postoperative dental pain resulting from a dental \_\_\_\_\_ procedure often requires the dental surgeon to recommend or prescribe an \_\_\_\_\_. Such analgesics can be classified as either peripherally- or centrally-acting.

*a) pain b) local c) surgical d) cause e) analgesic f) structures g) dental*

**Ex.15. Read and translate the following text and divide it into logical parts:**

**Oral analgesics for acute dental pain**

Acute pain is the most common complaint that causes patients to seek help from healthcare professionals. Pain management remains an important consideration in dental care and patient management. Although utilized for acute pain control, analgesics provide significant anti-inflammatory effects. Anti-inflammatory analgesics are available both over-the-counter (OTC) and by prescription. Since analgesics are widely used in dentistry and by patients for other medical indications, the dentist should be knowledgeable in their pharmacology.

Pain, as defined by the International Association for the Study of Pain, is “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.” Pain is not a single entity; it is part of the entire inflammatory process and one of the clinical signs of inflammation. Pain can be described as (1) acute, (2) chronic and associated with malignant disease, or (3) chronic and not associated with malignant disease. The duration of acute pain is usually hours to days, while chronic pain can last months to years and have associated problems of depression and anxiety.

Oral pain is associated with pulpitis, periodontitis, pericoronitis, abscesses (endodontic/periodontal), trauma, and other conditions including temporomandibular disorders (TMDs) and masticatory muscle disorders. Dental procedures also can have pain as a sequela with more invasive procedures increasing this likelihood. Pain is provoked when a variety of inflammatory mediators are released into the tissues. These pain-inducing substances can be produced and released from cell membranes by trauma (eg, mechanical trauma to the soft tissues and bone during periodontal surgery), infection, and allergenic reactions. Therefore, part of the successful management of pain requires blocking or managing the development of inflammation.

The majority of dental pain is an acute response to inflammation. The acute pain associated with dental trauma, infection, or surgery is usually managed pharmacologically. The key to pharmacologically managing pain is to provide a sufficient dose of a particular drug to minimize pain onset and give the patient comfort. The drug should be administered frequently to prevent the pain from becoming severe. The most effective way to maintain analgesia is to administer doses on a regularly scheduled basis for a specified period after the trauma. For example, after periodontal

surgery, inflammation and pain usually peak 48 hours later. Thus, postoperative analgesic medication can be administered on a regular schedule, depending on the half-life of the drug (eg, every 4 hours), for 48 hours, then given as necessary.

**Notes:**

**management** – лікування

**mediator** -1) посередник 2) (нейро)медіатор

**pericoronitis** - перикороніт (запалення м'яких тканин навколо коронки зуба)

**sequela** – наслідок, остаточне явище, ускладнення хвороби

**half-life** -1) період напіврозпаду 2) період напіввиведення

**Ex. 16. Write out key words of the text “Oral analgesics for acute dental pain”.**

**Ex. 17. Make up a plan of the text “Oral analgesics for acute dental pain”.**

**Overview**

An analgesic is a pain relieving substance. It does not cure the problem that causes the pain, but reduces the feeling of the pain. Conventional analgesics are classified as opioids and nonopioids. Analgesics are used as short term measures to ease pain before, during and after dental treatment. Severe dental pain is usually caused by the inflammation of the nerves and blood vessels in and around the tooth. Inflammation is the cause of most dental pain. Anti-inflammatory drugs are effective against such pain. The most commonly used analgesics are: Acetaminophen, Aspirin, Codeine, Ibuprofen.

**Lesson 16**

**Dental Anesthesia**

**VOCABULARY**

**anesthesia** [ˈæniːsθiːziə] анестезія

**cornerstone** [ˈkɔːnəstəʊn] наріжний камінь, основа, початок

**concern** [kənˈsɜːn] проблема, питання, занепокоєння

**sedation** [siːdeɪʃ(ə)n] заспокоєння

**render** [ˈrendə] надавати, виконувати

**unconscious** [ʌnˈkɔːn(t)ʃəs] несвідомий

**preference** [ˈpref(ə)r(ə)n(t)s] перевага

**oxygen** [ˈɒksɪdʒən] кисень

**numbness** [ˈnʌmpnəs] втрата чутливості

**twilight sleep** [ˈtwaɪlaɪt] “сутінковий” сон

**injection** [ɪnˈdʒekʃ(ə)n] ін’єкція

**awareness** [əˈweɪnəs] свідомість, розуміння

**Lidocaine** [ˈlɪdʊkeɪn] лідокаїн

**groggy** [ˈgrɒɡɪ] той, хто нетвердо стоїть на ногах, хитається

**intravenous (IV)** [ˈɪntrəˈvɪːnəs] внутрішньовенний

**infiltration injection** [ˈɪnfɪlˈtreɪʃ(ə)n] інфільтраційна анестезія

**block injection** [blɒk] провідникова анестезія

**awake** [əˈweɪk] усвідомлювати, будити, прокидатися

**RULES OF READING**

**MUTE LETTERS (“НІМІ” ЛІТЕРИ)**

g	у сполученні <b>gn</b>	foreign ['fOrIN]
gh	на початку слова; у сполученнях <b>igh, tigh, ough, augh</b>	ghost [gqust] sigh [saI]
h	у сполученні <b>rh</b> ; у сполученні <b>wh</b> , якщо наступна літера не є <b>o</b>	rhesus [rI:sqs] when [wen]
k	на початку слова у сполучення <b>kn</b>	know [nqu]
l	у сполученнях <b>alf, alk, alm, olk</b>	half [ha:f] talk [tO:k]
n	у сполученні <b>mn</b>	column ['kOlqm]

**Ex.1. Read the following words:**

Foreign; sign; sigh; eight; rheumatoid; hemorrhage; diarrhea; rhythm; when; where; knife; half; talk; calm; autumn; design.

**WORD-BUILDING**

**Ex.2. Familiarize yourself with the following material:**

**Suffix of Adjectives:**

**-ary (-ory, -ery)**

auditory *слуховий*

**Ex.3. Read and translate the following words:**

Necessary; sanitary; ordinary; auxiliary; urinary; axillary; alimentary; salivary; temporary; secretory; watery.

**GRAMMAR:**

**Ex.4. Familiarize yourself with the following grammar material:**

**Participle I (V<sub>4</sub>)**

**V+-ing**

<b>Infinitive</b>	<b>Participle I</b>
to define	defining
to see	seeing
to stay	staying
to begin	beginning
to open	opening
to control	controlling
to die	dying

**Ex.5. Form Participles I from the following infinitives and translate them:**

To attach; to cover; to penetrate; to pump; to conduct; to maintain; to adapt; to protect; to classify; to consist; to contain; to break; to divide; to branch.

**Ex.6. Read and translate the following sentences into Ukrainian:**

**Note:**

The nurse <b>working</b> here is my mother. <b>Reading</b> this paper, I made notes.	Медсестра, котра працює тут – моя мати. Читаючи цю статтю, я робив нотатки.
---	--

She came up to physician <b>crying</b> loudly.	Вона підійшла до лікаря з гучним плачем.
--	--

1. Traveling about Ukraine, he saw a lot of newly built clinics. 2. The doctor examining these patients is a skilled specialist. 3. The lecturer answering the students' questions works at the regional hospital. 4. Being unwell, he cannot do this work. 5. M.D. Strazhesko was the author of many classical works describing the heart and abdominal diseases. 6. The epiphysis consisting of spongy bone has many small cavities. 7. The outer fibrous layer is dense, fibrous, irregular collagenous connective tissue containing blood vessels and nerves. 8. Osteoblasts are bone producing cells, and osteoclasts are cells breaking down bone. 9. They have compact bone surfaces surrounding a cancellous bone center with small spaces.

**Ex.7. Familiarize yourself with the data of the following table:**

**CONTINUOUS TENSES**  
(Active Voice, Affirmative Form)  
to be + Participle I (Ving)

Present	Past	Future
I <b>am</b> He } She } <b>is</b> It }  You } We } <b>are</b> They }	I He } She } <b>was</b> It } <b>Ving</b> You } We } <b>were</b> They }	I <b>shall be</b> He } She } It } <b>will be</b>  You } They } We <b>shall be</b>
+ Ving	+ Ving	+ Ving

**MODEL:**

I **am examining** a patient. – Я оглядаю хворого. My fellow-student **is preparing** for credit test in Anatomy at present. – Зараз мій однокурсник готується до заліку з анатомії. He **was reading** an article at 7 o'clock yesterday. – Він читав статтю вчора о 7 годині. They **were carrying** out very important experiment from 2 till 5 o'clock. – Вони проводили дуже важливий експеримент з 2 до 5. The surgeon **will be operating** on this patient at 11 o'clock tomorrow. – Хірург буде оперувати цього пацієнта завтра об 11 годині.

**Ex.8. Read and translate the following sentences:**

1. Now some prominent scientists of Ukraine are working at the medical faculty of Kyiv University. 2. When Teresa was reading the abstract, William was preparing his lessons. 3. WHO is protecting mother and child health. 4. Knowledge of illness and the ability to treat it were growing rapidly. 5. The bone' structure will be changing rapidly. 6. The student will be learning the functions of the skeletal system from 5 till 6 o'clock tomorrow. 7. The red marrow in the limbs is replacing with yellow marrow.

**Ex.9. Turn the following sentences into Past and Future Continuous Tenses:**

1. The physician is listening to the patient's heart and lungs. 2. The scientist is carrying out his experiment on bone growth. 3. The blood calcium is decreasing and the secretion of parathyroid hormone is increasing. 4. The surgeon is saving the patient's life. 5. The lecturer is demonstrating new film "The major functions of the vertebral column".

**Ex.10. Find the sentences containing Continuous Tenses. Read and translate them:**

1. A strain is a stretching and tearing of muscle or tendon fibers. 2. He is splinting a victim. 3. Dislocations are caused by falls, sports injuries, motor-vehicle accidents, and underlying diseases. 4. They are applying a cold pack to a closed fracture. 5. At present the doctor is checking radial pulse on fractured extremity. 6. Strains are often caused by lifting something too heavy.

**Ex.11. Translate the following sentences into English:**

1. Зараз хірург проводить серйозну операцію. 2. Медсестра робила внутрішньовенну ін'єкцію цьому пацієнту вчора о 5 годині вечора. 3. Завтра з 11 до 12 стоматолог буде оглядати вас. 4. У цей час він закінчує своє дослідження. 5. Наші студенти зараз допомагають дитячому стоматологу оглядати пацієнтів. 6. Подивіться, студенти нашої групи зараз читають додаткову літературу з цього предмету (on this subject).

## READING AND DEVELOPING SPEAKING SKILLS

**Ex.12. Read VOCABULARY and memorize new words.**

**Ex.13. Insert the missing letters:**

Anest\_esia, dis\_ase, pro\_edure, loc\_l, medicat\_ons, o\_ygen, uncons\_ious, sur\_ery, nu\_b, in\_ctions, p\_in, sens\_tion, d\_ug, j\_w, tre\_tment.

**Ex.14. Read and translate the following words and word-combinations:**

Dental disease, modern dentistry, medical procedures, without pain, sedation, unable to move, pain prevention, instead, feel pain, minor procedures, small site, patient's awareness, additional injections, total numbness, to follow instructions, dental phobia, patient preferences, allergic reactions, health conditions.

**Ex.15. Read the following words:**

Pain, manifestation, development, allow, procedure, patient, oxygen, prevention, surgery, awareness, several, applications, gum, injection, preferences, anesthetic, conditions, concerns.

**Ex.16. Read and translate the following text:**

### Dental anesthesia

Pain is the most common manifestation of dental disease and as such the advent of anesthesia may be regarded as a cornerstone in the development of modern dentistry.

Anesthesia is the administration of medication to allow medical procedures to be done without pain, and in some cases, without the patient being aware during the procedure.

There are four types of anesthesia:

- General Anesthesia
- Regional Anesthesia
- Local Anesthesia
- Monitored Anesthesia Care (Twilight Sleep)

**General** anesthesia is a type of sedation that uses several medications to render the patient unconscious and unable to move. The medications are given both through an IV and mixed with oxygen and inhaled.

**Regional** anesthesia is a method of pain prevention for surgeries and procedures. Instead of making the patient sleep through surgery, the area of the body that would feel pain is numbed, allowing the patient to have the procedure while awake.

**Local** anesthesia is a type of pain prevention used during minor procedures to numb a small site where pain is likely to occur without changing the patient's awareness.

A numbing medication is either applied to or injected into the area, sometimes with several small injections, and after a few minutes the area should be completely numb. If the area still has sensation, additional injections or applications may be given to insure total numbness.

Local anesthesia is most commonly associated with dental procedures, where the gum is numbed with an injection of medication.

**Monitored Anesthesia Care** is a type of sedation that is administered through an IV to make a patient sleepy and calm during a procedure. The patient is typically awake, but groggy, and is able to follow instructions as needed.

The type of anesthesia required for any dental procedure depends on the needs or preferences of the patient. You and your dentist will decide what level of anesthesia is right for you. Some patients prefer a higher level of anesthesia than others. Children, people with special needs, such as mental retardation, and those with a condition, such as a dental phobia may require a higher level of anesthesia. The type of anesthesia administered by your dentist is more dependent on individual patient preferences than specific dental procedures.

Lidocaine is the most common local anesthetic that dentists use. There are many others. They all have names ending in "-caine." Many people think of Novocain as the classic numbing drug. But Novocain actually is not used anymore. Other drugs last longer and work better than Novocain. These drugs also are less likely to cause allergic reactions.

There are two kinds of numbing injections. A block injection numbs an entire region of your mouth, such as one side of your lower jaw. An infiltration injection numbs a smaller area. This is the area near where the injection was given.

Your dentist needs to know about all the medications that you are taking, any allergic reactions you've had to medicines in the past, and your past and present health conditions. It's important that you answer your dentist's questions completely and ask about your concerns. This way your dentist will be sure to tell you everything you need to know before receiving treatment.

**Ex.17. Find in the text the equivalents for the following Ukrainian words and word-combinations:**

Попередження больових відчуттів, нижня щелепа, стоматологічна процедура, алергічні реакції, затримка розумового розвитку, внутрішньовенна ін'єкція, інфільтраційна анестезія, провідникова анестезія, найпоширеніший місцевий анестетик, викликати оніміння невеликої ділянки, стан здоров'я, тривати довше, залежати від індивідуальних переваг пацієнта.

**Ex.18. Ask questions to the following sentences beginning with the words in brackets:**

1. Pain is the most common manifestation of dental disease. (What?)
2. Anesthesia is the administration of medication to allow medical procedures to be done without pain. (What?)
3. There are four types of anesthesia. (How many?)
4. General anesthesia is a type of sedation that uses several medications to render the patient unconscious and unable to move. (What?)
5. Regional anesthesia is a method of pain prevention for surgeries and procedures. (What?)
6. A numbing medication is either applied to or injected into the area. (How?)
7. Additional injections or applications may be given to insure total numbness. (Why?)
8. The type of anesthesia depends on the needs or preferences of the patient. (What?)
9. Children, people with special needs, such as mental retardation, and those with a condition, such as a dental phobia may require a higher level of anesthesia. (Who?)
10. There are two kinds of numbing injections. (How many?)

11. Lidocaine is the most common local anesthetic that dentists use. (What?)

**Ex.19. Insert the missing words:**

1. Anesthesia is the administration of \_\_\_\_\_ to allow medical procedures to be done without pain. 2. Lidocaine is the most common \_\_\_\_\_ anesthetic that dentists use. 3. Local anesthesia is a type of pain \_\_\_\_\_ to numb a small site without changing the patient's awareness. 4. Local anesthesia is most commonly associated with \_\_\_\_\_ procedures. 5. The type of anesthesia is dependent on individual \_\_\_\_\_ preferences.

**Ex.20. Insert the missing prepositions(by, of, for, as, down, in) and translate the abstract:**

Anesthesia is a controlled condition of unconsciousness induced \_\_\_\_ medication. Nowadays, dentists use a local anesthetic called Lidocaine, the modern replacement \_\_\_\_ Novocaine and procaine, which were discovered \_\_\_\_ 1905 \_\_\_\_ the German chemist Alfred Einhorn. Local anesthesia induces the absence \_\_\_\_ sensation \_\_\_\_ a part of the body, and general anesthesia induces a state of total unconsciousness. Anesthesia shuts \_\_\_\_ body functions such as consciousness, pain sensibility, defensive reflexes and muscle tension. Anesthetics also temporarily close down important protective reflexes such \_\_\_\_ breathing and coughing reflexes.

**Ex.21. Write out key words of the text “Dental anesthesia”.**

**Ex.22. Make up a plan of the text “Dental anesthesia”.**

**Ex.23. Give a summary of the text “Dental anesthesia”.**

**Ex.24. Make up a dialogue on types of dental anesthesia.**

**Ex.25. Read and retell the following text:**

To make your dental visit as comfortable as possible, your dentist may suggest anesthesia to reduce or eliminate any pain or anxiety that may be related to your dental treatment. The type of anesthesia required for any dental procedure depends on the needs or preferences of the patient.

Local anesthesia is produced by the application or injection of a drug to eliminate pain in a specific area in the mouth. Topical anesthetics are frequently used by your dentist to numb an area in preparation for administering an injectable local anesthetic. Injectable local anesthetics, such as Lidocaine, numb mouth tissues in a specific area of your mouth for a short period of time. Your dentist will probably inject a local anesthetic before filling cavities, preparing your teeth for crowns, or for any surgical procedure. Local anesthesia is the most commonly used form of anesthesia in the dental office.

Conscious sedation can be used to help you relax during a dental procedure. Your dentist may administer an anti-anxiety agent, such as nitrous oxide, or a sedative, in combination with a local anesthetic for pain. During conscious sedation, you will remain calm during treatment, yet rational and responsive to speech and touch. Anti-anxiety agents and sedatives can be administered by mouth, inhalation or injection.

Deep sedation and general anesthesia is used for complex procedures and for patients who have trouble controlling their movements or need a deeper level of anesthesia during treatment. During deep sedation you will be unable to respond appropriately to verbal commands. During general anesthesia you will be unconscious.



Although taking any medication involves a certain amount of risk, the drugs that produce anesthesia are entirely safe when administered by a trained anesthesia provider. The best thing to do is ask questions about any procedure that you are not familiar with. Ask about alternatives, training, the doctor's commitment to continuing education and the credentials of other personnel in the dental office who might be assisting with your treatment. Good communication between the dentist and the patient is the best way of insuring safety.

**Ex.26. Read the following abstract and tell what it deals with:**

Local anesthetics are the most common drugs used in the dental office. Side effects are very rare. One possible side effect is a hematoma. This is a blood-filled swelling. It can form when the injection needle hits a blood vessel. The numbing medicine sometimes causes numbness outside of the targeted area. If this happens, your eyelid or mouth can droop. You will recover when the drug wears off. If you are unable to blink, you may need to have your eye taped shut until the numbness wears off. The anesthetic usually lasts for only a couple of hours. In some people, the vasoconstrictor drug can cause the heart to beat faster. This lasts only a minute or two. Tell your doctor if this has ever happened to you. Finally, the needle can injure a nerve. This can lead to numbness and pain for several weeks or months. The nerve usually heals over time.

**Overview**

Anesthesia is the administration of medication to allow medical procedures to be done without pain. There are four types of anesthesia: general anesthesia, regional anesthesia, local anesthesia and twilight sleep. Local anesthesia is most commonly associated with dental procedures, where the gum is numbed with an injection of medication. Local anesthesia is produced by the application or injection of a drug to eliminate pain in a specific area in the mouth. Lidocaine is the most common local anesthetic that dentists use. There are two kinds of numbing injections: block injections and infiltration ones.

**Lesson 17  
Antimicrobial Drugs**

**VOCABULARY**

**drug** [drʌg] ліки

**to refer** [rɪ'fɜː] посилатися

**transient** ['trænzɪənt] тимчасовий

**strain** [streɪn] надрид

**item** ['aɪtəm] елемент

**to inhibit** [ɪn'hɪbɪt] гальмувати, пригнічувати

**adhesive** [əd'hɪ:sɪv] адгезивний

**lozenge** ['lɔːzɪndʒ] пастилка

**aphtous** ['æfθəs] афтозний (від arphtha – афта, поверхнева виразка слизової оболонки порожнини рота)

**antiprotozoal** [ˈxntɪ'prɒtɒzɔʊəl]

**pastille** ['pæst(ə)l] пастилка

**ointment** ['ɔɪntmənt] мазь

**inherent** [ɪn'her(ə)nt] притаманний

**to rid** [rɪd] позбавляти(ся)

**lesion** ['liːz(ə)n] пошкодження

**Odontology** [ˈɒdɒn'tɒlədʒɪ] одонтологія

**buccal** [bʌkəl] щічний

**assure** [ə'ʃʊə] забезпечувати, гарантувати

**antifungal** [ˈxntɪ'fʌŋɡ(ə)l] протигрибковий

**focal** ['fəʊk(ə)l] фокальний, центральний

**microbiocidal** [ˈmaɪkrə'baɪə'saɪdɪl] бактерицидний

протипротозойний

**microbostatic** ['maɪkrəʊbɑːstətɪk]  
бактеріостатичний

**azole** (pyrrole) [ə'zəʊl] азол, піррол  
(гетероциклічне сполучення, що вживається для синтезу лікарських засобів)

### WORD-BUILDING

**Ex.1. Familiarize yourself with the following material:**

**Suffix of Adjectives:**

**-ful** (full of; characterized by; tending to; able to)

use *користь* – useful *корисний*

pain *біль* – painful *болючий*

**Ex.2. Read and translate the following words:**

Careful; powerful; harmful; helpful; painful; useful; awful.

### GRAMMAR:

**Ex.3. Familiarize yourself with the data of the following table:**

#### CONTINUOUS TENSES

(Active Voice, Interrogative Form)

Tense	(1) Questioning word	(2) Auxiliary verb	(3) Subject	(4) Predicate	Example
<b>Present Continuous Tense</b>	What	<b>am</b>	I	<b>V<sub>ing</sub></b> (studying, writing)	What <b>is</b> he <b>writing</b> now? What <b>are</b> you <b>doing</b> ?
	Where	<b>is</b>	he, she, it		
	Why	<b>are</b>	you, we, they		
<b>Past Continuous Tense</b>	How	<b>was</b>	I, he, she, it	<b>V<sub>ing</sub></b>	Where <b>was</b> a doctor <b>performing</b> on the operation?
	How many	<b>were</b>	you, we they		
<b>Future Continuous Tense</b>	How much	<b>shall</b> <b>will</b>	I, we he, she, it, you, they	<b>be + V<sub>ing</sub></b> (be studying, be writing)	What <b>will</b> you <b>be</b> <b>doing</b> at 3 p.m.?

**Ex.4. Read and translate the following interrogative sentences:**

1. Is he examining a patient? 2. What groups of drugs are they investigating? 3. Where was he filling in a patient's card from 10 till 11 a.m. yesterday? 4. Is the antibiotics is being preventive measure? 5. Is he translating a scientific article on the antibiotics?

**Ex.5. Turn the following sentences into interrogative:**

1. Antimicrobial drugs are killing microbes (microbiocidal). 2. Drugs are preventing the growth of microbes (microbiostatic). 3. Disinfectants are using on non-living objects now. 4. Antibiotics are producing microorganism that kill, or prevent the growth, of another microorganism. 5. Antimicrobials are including not just antibiotics, but synthetically formed compounds as well.

### READING AND DEVELOPING SPEAKING SKILLS

**Ex.6. Compose 3-4 sentences using the words of VOCABULARY.**

**Ex.7. Insert the missing letters:**

Cro\_s; abd\_ctor; fo\_ce; b\_ceps; \_xtend; longitu\_inal; d\_late; obli\_ue; pro\_el; triang\_lar; pos\_ure; f\_ber; pector\_l; contra\_tile; sm\_oth; compr\_se; expre\_sion; refe\_; del\_oid; mus\_le; brac\_ial; locomot\_on.

**Ex.8. Translate the following words and word-combinations into your native language:**

Goal; antibiotic; prophylaxis; Odontology; to prevent; onset; infections; through; therapeutic; considerable; operation; condition; physician; criterion; antibiotic; decision; aim; healthy; patients.

**Ex.9. Read the following words and word-combinations:**

Antibiotic; substance; microorganism; bacteria; fungi; refer; microbe; excrete; although; isolate; ancient; mould; plant; penicillin; multiply; synthesize; drug; pastille; to refer; focal; antifungal; ointment; antiprotozoal; item; to inhibit; inherent; strain; to rid; lesion; microbiocidal; Odontology; microbostatic; buccal; lozenge; transient; adhesive; to assure.

**Ex.10. Read the following text:**

**Antimicrobial drugs**

Antimicrobial drug is a drug used to treat a microbial infection.

"Antimicrobial" is a general term that refers to a group of drugs that includes antibiotics, antifungals, antiprotozoals, and antivirals. An anti-microbial is a substance that kills or inhibits the growth of microorganisms such as bacteria, fungi, or protozoans. Antimicrobial drugs either kill microbes (microbiocidal) or prevent the growth of microbes (microbiostatic). Disinfectants are antimicrobial substances used on non-living objects or outside the body.

Technically, antibiotics are only those substances that are produced by one microorganism that kill, or prevent the growth, of another microorganism. Of course, in today's common usage, the term antibiotic is used to refer to almost any drug that attempts to rid your body of a bacterial infection. Antimicrobials include not just antibiotics, but synthetically formed compounds as well.

**Prophylactic antibiotics**

The goal of antibiotic prophylaxis in Odontology is to prevent the onset of infections through the entrance way provided by the therapeutic action, therefore it is indicated provided there is a considerable risk of infection, either because of the characteristics of the operation itself or the patient's local or general condition.

The physician's criterion for choosing antibiotic prophylaxis or not must be based on the benefit and the cost of the risk. In the last instance, the prophylaxis decision is the choice of the physician.

To that aim, patients could be classified as:

- a) healthy patients,
- b) patients with local or systemic infection risk factors
- c) patients with post-bacteraemia focal infection risk factors.

In healthy subjects, prophylaxis is based exclusively on the risk of the procedure.

**Topical Antibiotics**



Some topical antibiotics are available without a prescription and are sold in many forms, including creams, ointments, powders, and sprays. Some widely used topical antibiotics are bacitracin, neomycin, polymyxin B.

Among the products that contain one or more of these ingredients are Bactroban (a prescription item), Neosporin, Polysporin, and Triple Antibiotic, Ointment or Cream.

Antibiotic mouthwash can be prepared by the patient by dissolving the contents of 250 mg tetracycline capsule in 10 ml of water to give a 2% solution. It may be more effective to add glycerol to the solution as a demulcent, this must be done by pharmacist.

The value of topical antibiotics overweighs such risks in some cases. Tetracycline is a useful topical antibiotics. As at 2% solution it's often effective in reducing secondary infection (and thus the discomfort) in cases of aphthous stomatitis, primary herpetic stomatitis, and all oral ulcerative conditions.

Use of topical antibiotics is also seen to be helpful in acute chronic gingivitis treatment.

There are inherent disadvantages associated with the use of topical antibiotics because of the possibilities of selection for resistant strains and inducing hypersensitivity reaction at the patient.

Topical antibiotics help prevent infections caused by bacteria that get into minor cuts, scrapes, and burns. Treating minor wounds with antibiotics allows quicker healing. They are always used to prevent secondary infection (ulcers).

The use of topical antibiotics cannot normally be practiced as long-term treatment, it is better to be reserved for acute episodes. Otherwise, there will be the risk of overgrowth of resistant organisms, although a candidal infection may occur. However, in some rare cases a prolonged topical antibiotic treatment is justified (Patients with severe and persistent oral lesions), in that case a tetracycline with triamcinolone combination is preferred.

**Ex.11. Translate the following words and word-combinations into English:**

Грибки; вторгтися; гальмувати; виворотка; дріжджі; зростання мікроорганізмів; антибіотики для місцевого застосування; посилятися; протигрибковий; виникати; надрив; позбавляти; впливати; бактеріцидний; тимчасовий; забезпечувати; пастилка; пошкодження.

**Ex.12. Translate the text “Antimicrobial drugs” into your native language.**

**Ex.13. Insert the missing words:**

1. Antibiotic is a chemical substance that \_ the growth of other microorganisms. 2. The term is used to \_ to substances with anti-bacterial, anti-fungal, or anti-parasitical activity. 3. Antibiotics can be divided into two groups: \_ and bacteriostatic. 4. Bactericidal antibiotics destroy bacteria, and bacteriostatic antibiotics prevent \_ from multiplying. 5. Antibiotics are used to \_ serious bacterial infections. 6. Each antibiotic is \_ only against certain bacteria. 7. Usually, antibiotics are given by mouth, while \_ antibiotics are used in more serious cases. 8. Antibiotics may also sometimes be administered \_ with ointments. 9. A lozenge \_ effective salivary drug levels for more than one hour but repeated \_ was restricted due to systemic toxicity coming from the large quantity of \_ drug. 10. The action of \_ was even more \_ than that of \_, and gels/pastes were difficult to retain in the \_.

**Ex.14. Answer the following questions:**

1. What is antibiotic? 2. What is an antimicrobial drug? 3. How long are antibiotics used? 4. What groups of antibiotics have you learned from the previous info? 5. What are bactericidal antibiotics? 6. What are bacteriostatic antibiotics? 6. What side effect can antibiotic have? 7. What routs of antibiotics' administration are there? 8. What are topical antibiotics? 9. What are topical antiseptics? 10. What helps to determine the optimal antibiotic therapy?

**Ex.15. Insert the prepositions:**

1. The value \_ topical antibiotics overweighs such risks \_ some cases. 2. Tetracycline is a useful topical antibiotics. 3. As at 2% solution it's often effective \_ reducing secondary infection (and thus the discomfort) \_ cases of aphtous stomaitis, primary herpetic stomaitis, and all oral ulcerative conditions. 4. Use \_ topical antibiotics is also seen to be helpful \_ acute chronic gingivitis treatment. 5. There are inherent disadvantages associated \_ the use \_ topical antibiotics because \_ the possibilities \_ selection \_ resistant strains and inducing hypersensitivity reaction \_ the patient. 6. Topical antibiotics help prevent infections caused \_ bacteria that get into minor cuts, scrapes, and burns. 7. Treating minor wounds \_ antibiotics allows quicker healing. 8. They are always used \_ prevent secondary infection.

**Ex. 16. Write out key words of the text “Antimicrobial drugs”.**

**Ex. 17. Make up a plan of the text “Antimicrobial drugs”.**

**Ex. 18. Speak on the using of antibiotics.**

**Ex. 19. Make up a dialogue on antibiotics.**

**Ex. 20. Give a summary of the following text:**

#### **Topical antifungal treatment**

The polyene antifungal agents, nystatin and amphotericin B, are well established and relatively free from side-effects when used locally. They are available in various forms, such as lozenges, pastilles, creams, and suspensions.

Unfortunately, patient compliance is often poor with these preparations, which may take a while to dissolve in the mouth (for example, pastilles and lozenges) and have a distinctive taste. The newer azoles have very useful properties, although resistance is rather more commonly met and may be problematic in the future, particularly in the immunocompromised patient. The locally active agent, miconazole is available as an oral gel or cream.

#### **Pharmaceutical Forms**

In order to assure topic application of antifungal agents, conventional lozenge, mouthwash, or gel would be the simplest dosage forms for the delivery of drugs in the buccal cavity, but these conventional dosage forms had the disadvantage of an initial burst of salivary concentration followed by a rapid decrease. A lozenge produced effective salivary drug levels for more than one hour but repeated administration was restricted due to systemic toxicity coming from the large quantity of ingested drug. The action of mouthwashes was even more transient than that of lozenges, and gels/pastes were difficult to retain in the mouth.

In case of oral fungal infections, a prolonged therapy with antifungal agent was required, and some papers documented prolonged release of antifungal agent from buccal devices in the form of an adhesive tablets.

**Ex. 21. Compose 4-5 interrogative sentences using the Present Continuous Tense.**

**Ex. 22. Speak about the topical antifungal treatment.**

#### **Overview**

Antibiotic is a chemical substance that inhibits the growth of other microorganisms. The term is used to refer to substances with anti-bacterial, anti-fungal, or anti-parasitical activity. Antibiotics can be divided into two groups: bactericidal and bacteriostatic. Bactericidal antibiotics destroy bacteria, and bacteriostatic antibiotics prevent bacteria from multiplying. Antibiotics are used to treat serious bacterial infections. Each antibiotic is effective only against certain bacteria. Usually,

antibiotics are given by mouth, while intravenous antibiotics are used in more serious cases. Antibiotics may also sometimes be administered topically.

## **Lesson 18** **Additional Texts**

Text A

### **Medical education in the USA**

In the USA Universities and medical colleges train doctors. The doctors' training takes from 8 to 13 years to become a doctor. The medical students have three or four years of pre-clinical training at the University. During this course students learn the basic subjects. They must have deep knowledge in Anatomy, Biology, Chemistry and others. Medical students may work as nurses after pre-clinical training. Students who have made top grades are chosen candidates for a medical school or medical faculty of the University. This course lasts 4 years. At the time of the clinical training students learn the basic sciences, such as Biological Chemistry, Pharmacology, Physiology, Pathologic Physiology and others. Besides they have Psychology, which teaches the students to deal with patients. The students come in touch with patients in their third and fourth years. During this course the students learn Anesthesiology, Dermatology, Internal Medicine, Surgery, Preventive Medicine, Pediatrics, Gynaecology, Obstetrics and others. After graduation they may improve their qualification at postgraduate or special courses. As a rule after graduation from the University young doctors must work for 3-5 years under the supervision of experienced specialists in a certain field of medicine. After that they may work independently and have private practice.

In the USA there is a system of control and valuation of students' knowledge levels. The system of test is determined by means of test units. It is used for counting study hours, definition of academic progress and number of studied courses. For receiving the degree of Bachelor it is necessary to get 120-140 units during 4 years of study.

The most Universities are not state. They are private institutions. Each University has its own independent government and syllabuses. Medical education in the USA is very expensive and only the best students receive grants. The students pay additional fees for the using of laboratories, clinics and others.

Text B

### **The physical examination**

When the patient comes for advice or treatment, the dentist must make a diagnosis, prescribe proper treatment, and may form a prognosis of the case. Diagnosis is the recognition of a disease. In order to make a correct diagnosis it is necessary to collect all available information, by questioning and by physical examination of the patient, to determine etiology and pathogenesis of the disease as well as the symptoms by which it can be revealed.

History taking is the first step helping to establish the patient's immediate complaints. It may indicate a particular dental problem or neglect dental care. The dentist looks through the past records in a patient's card. During the interview the doctor puts appropriate questions to help him/her to reach a diagnosis: "What seems to be the problem?", "Where does it hurt?", "What tooth troubles you?", "What kind of pain is it?", "How long does the pain last?", "Does anything make it worse?", "Is there anything else you feel at the same time?". Important dental symptoms include bleeding, pain, malocclusion, new growths, malodor of exhaled breath, and chewing problems.

Attention should be paid to the past dental history which may reveal factors of general or immediate importance. Information on oral hygiene and dietary habits must be included at this stage.

A thorough general inspection of the face, neck and mouth, and the affected areas in detail, precedes the examination with the instruments. The examiner should pay attention to the face symmetry, skin, complexion, speech, masticatory movements of the patients, the cervical lymph nodes should be also palpated.

Teeth are inspected for shape, defects, mobility, color, and presence of adherent plaque, materiaalba (dead bacteria, food debris, desquamated epithelial cells), and calculus. They are gently tapped with a tongue depressor or mirror handle to assess tenderness (percussion sensitivity).

The visual examination of the oral cavity can be carried out with the simplest aids: a good light, a dental mirror, probes, and carrying forceps for cotton wool. In many conditions of dental origin such an examination may allow to make a correct final diagnosis. Occasionally this is not enough and the dentist may use special methods of examination of greater complexity and requiring much more equipment and facilities. These procedures include the following: X-ray examination, bitewing or periapical techniques; pulp vitality tests by thermal or electrical stimulation; transillumination of the teeth, alveoli, and nasal sinuses; occlusal registration and analysis; bacteriological examination, by culture and bacterial counts; serology, blood chemistry; biochemical analysis of saliva; biopsy and histopathological examination.

Of the above tests, X-ray and vitality tests are commonly used, while the last four require hospital conditions.

Oral findings may be the first signs of the systemic diseases and may be rather helpful for other clinicians. Results of an examination should be entered into a patient's medical record which serves for preparing a treatment plan.

Text C

### **The Tongue**

The tongue is a muscular organ in the mouth. The tongue is covered with moist, pink tissue called mucosa. Tiny bumps called papillae give the tongue its rough texture. Thousands of taste buds cover the surfaces of the papillae. Taste buds are collections of nerve-like cells that connect to nerves running into the brain. The tongue is anchored to the mouth by webs of tough tissue and mucosa. The tether holding down the front of the tongue is called the frenum. In the back of the mouth, the tongue is anchored into the hyoid bone. The tongue is vital for chewing and swallowing food, as well as for speech. The four common tastes are sweet, sour, bitter, and salty. The tongue has many nerves that help detect and transmit taste signals to the brain. Because of this, all parts of the tongue can detect these four common tastes; the commonly described "taste map" of the tongue doesn't really exist. The eight muscles of the human tongue are classified as either intrinsic or extrinsic. The four intrinsic muscles act to change the shape of the tongue, and are not attached to any bone. The four extrinsic muscles act to change the position the tongue, and are anchored to bone. The tongue receives its blood supply primarily from the lingual artery, a branch of the external carotid artery. The floor of the mouth also receives its blood supply from the lingual artery. The triangle formed by the intermediate tendon of the digastric muscle, the posterior border of the mylohyoid muscle, and the hypoglossal nerve is sometimes called Pirogov's, Pirogoff's, or Pirogov-Belclard's triangle. The lingual artery is a good place to stop severe hemorrhage from the tongue. There is also secondary blood supply to the tongue from the tonsillar branch of the facial artery and the ascending pharyngeal artery.

Text D

### **Wisdom Teeth**

Wisdom Teeth are called the upper and lower third molars. They are the last of the molar teeth, which are the large grinding teeth at the back of each side of the jaws.

Human permanent teeth start to erupt from the age of six. Up to the age of 17, the permanent dentition will consist of only twenty-eight teeth. The four remaining teeth, the wisdom teeth, will come in later, usually during late teen years or early twenties.

In many people, wisdom teeth come in with no problems. If the teeth are healthy and they come in straight, then most of people do not even realize the teeth are there. Unfortunately, in some cases, they cause problems that require the wisdom teeth removal (extraction) by the dentist.

Since wisdom teeth are the last permanent teeth to erupt, there is often not enough room left in the mouth for them to erupt properly.

If the jaw is not large enough to accommodate all the teeth that are growing in, the teeth will not be able to come through the gums as they get stuck, most often against the tooth in front, and so they remain below the jawline. Those teeth that are unable to erupt properly, trapped beneath the gum tissue by other teeth or bone, are called impacted wisdom teeth.

The impacted wisdom teeth may cause pain as they press the other teeth, but in some cases you may feel nothing at all for years or not even be aware that you have an impacted wisdom tooth. In other cases the impacted tooth may damage the tooth next to it, or the gums around the wisdom tooth can become infected and quite painful. Swelling and tenderness may also occur.

A wisdom tooth might also erupt only partially, if it gets stuck just when going through the gumline. In this case, food, plaque and bacteria can become trapped under the flap of gum covering part of the tooth, causing infections. Inflammation of this flap is called pericoronitis and is the most common symptom among people who need a wisdom tooth extraction. Wisdom teeth that only partially emerge or come in crooked can also lead to painful crowding and gum disease.

Wisdom teeth problems also occur when they do not come in straight. Sometimes they erupt crooked, facing the wrong direction and causing irritation on the cheek, tongue, or other parts of the mouth. This can make it difficult to keep the wisdom teeth clean. Since the area between the tooth and gums becomes hard to reach and be cleaned very well, there is increased risk of irritation or infection of that area due to dental plaque accumulation.

## APPENDIX 1

### IRREGULAR VERBS

V	Translation	V <sub>2</sub>	V <sub>3</sub>
<b>be</b> [bɪ:]	бути	<b>was, were</b> [wɒz, wɜ:]	<b>been</b> [bi:n]
<b>bear</b> [bɛə]	нести; родити	<b>bore</b> [bɔ:]	<b>born(e)</b> [bɔ:n]
<b>beat</b> [bi:t]	бити	<b>beat</b> [bi:t]	<b>beaten</b> ['bi:tn]
<b>become</b> [bɪ'kʌm]	ставати	<b>became</b> [bɪ'keɪm]	<b>become</b> [bɪ'kʌm]
<b>begin</b> [bɪ'gɪn]	починати	<b>began</b> [bɪ'gɛn]	<b>begun</b> [bɪ'gʌn]
<b>bring</b> [brɪŋ]	приносити	<b>brought</b> [brɔ:t]	<b>brought</b> [brɔ:t]
<b>build</b> [bɪld]	будувати	<b>built</b> [bɪlt]	<b>built</b> [bɪlt]
<b>catch</b> [kæʃ]	ловити	<b>caught</b> [kɔ:t]	<b>caught</b> [kɔ:t]
<b>choose</b> [tʃu:z]	вибирати	<b>chose</b> [tʃɔ:z]	<b>chosen</b> ['tʃɔ:zn]
<b>come</b> [kʌm]	приходити	<b>came</b> [keɪm]	<b>come</b> [kʌm]
<b>cut</b> [kʌt]	різати	<b>cut</b> [kʌt]	<b>cut</b> [kʌt]
<b>deal</b> [di:l]	мати справу	<b>dealt</b> [delt]	<b>dealt</b> [delt]
<b>do</b> [du:]	робити	<b>did</b> [dɪd]	<b>done</b> [dʌn]
<b>draw</b> [drɔ:]	тягнути	<b>drew</b> [dru:]	<b>drawn</b> [drɔ:n]
<b>drink</b> [drɪŋk]	пити	<b>drank</b> [dræŋk]	<b>drunk</b> [drʌŋk]
<b>eat</b> [i:t]	їсти	<b>ate</b> [et, elt]	<b>eaten</b> ['i:tn]



<b>fall</b> [fɔ:l]	падати	<b>fell</b> [fel]	<b>fallen</b> [ˈfɔ:lɪn]
<b>feed</b> [fi:d]	кормити	<b>fed</b> [fed]	<b>fed</b> [fed]
<b>feel</b> [fi:l]	відчувати	<b>felt</b> [felt]	<b>felt</b> [felt]
<b>fight</b> [faɪt]	битися	<b>fought</b> [fɔ:t]	<b>fought</b> [fɔ:t]
<b>find</b> [faɪnd]	знаходити	<b>found</b> [faʊnd]	<b>found</b> [faʊnd]
<b>get</b> [get]	одержувати	<b>got</b> [gɒt]	<b>got, gotten</b> [gɒtən]
<b>give</b> [gɪv]	давати	<b>gave</b> [geɪv]	<b>given</b> [gɪvən]
<b>go</b> [gəʊ]	ходити	<b>went</b> [went]	<b>gone</b> [gɒn]
<b>grow</b> [grəʊ]	рости	<b>grew</b> [gru:]	<b>grown</b> [grəʊn]
<b>have</b> [hæv]	мати	<b>had</b> [hæd]	<b>had</b> [hæd]
<b>hear</b> [hɪə]	чути	<b>heard</b> [hɜ:d]	<b>heard</b> [hɜ:d]
<b>hold</b> [həʊld]	тримати	<b>held</b> [held]	<b>held</b> [held]
<b>keep</b> [ki:p]	тримати; зберігати	<b>kept</b> [kept]	<b>kept</b> [kept]
<b>know</b> [nəʊ]	знати	<b>knew</b> [nju:]	<b>known</b> [nəʊn]
<b>lead</b> [li:d]	вести	<b>led</b> [led]	<b>led</b> [led]
<b>learn</b> [lɜ:n]	вчити	<b>learnt</b> [lɜ:nt], <b>learned</b>	<b>learnt</b> [lɜ:nt], <b>learned</b>
<b>leave</b> [li:v]	залишати	<b>left</b> [left]	<b>left</b> [left]
<b>lie</b> [laɪ]	лежати	<b>lay</b> [leɪ]	<b>lain</b> [leɪn]
<b>lose</b> [lu:z]	губити	<b>lost</b> [lɒst]	<b>lost</b> [lɒst]
<b>make</b> [meɪk]	робити	<b>made</b> [meɪd]	<b>made</b> [meɪd]
<b>mean</b> [mi:n]	означати, мати на увазі	<b>meant</b> [ment]	<b>meant</b> [ment]
<b>meet</b> [mi:t]	зустрічати	<b>met</b> [met]	<b>met</b> [met]
<b>pay</b> [peɪ]	платити	<b>paid</b> [peɪd]	<b>paid</b> [peɪd]
<b>put</b> [pʊt]	класти	<b>put</b> [pʊt]	<b>put</b> [pʊt]
<b>read</b> [ri:d]	читати	<b>red</b> [red]	<b>red</b> [red]
<b>rise</b> [raɪz]	піднімати	<b>rose</b> [rəʊz]	<b>risen</b> [ˈrɪzn]
<b>run</b> [rʌn]	бігати	<b>ran</b> [ræn]	<b>run</b> [rʌn]
<b>say</b> [seɪ]	сказати	<b>said</b> [sed]	<b>said</b> [sed]
<b>see</b> [si:]	бачити	<b>saw</b> [sɔ:]	<b>seen</b> [si:n]
<b>send</b> [send]	посилати	<b>sent</b> [sent]	<b>sent</b> [sent]
<b>show</b> [ʃəʊ]	показувати	<b>showed</b> [ʃəʊd]	<b>showed, shown</b> [ʃəʊn]
<b>sit</b> [sɪt]	сидіти	<b>sat</b> [sæt]	<b>sat</b> [sæt]
<b>sleep</b> [sli:p]	спати	<b>slept</b> [slept]	<b>slept</b> [slept]
<b>smell</b> [smel]	пахнути	<b>smelt</b> [smelt]	<b>smelt</b> [smelt]
<b>speak</b> [spi:k]	говорити	<b>spoke</b> [spəʊk]	<b>spoken</b> [ˈspəʊkn]
<b>spend</b> [spend]	витрачати	<b>spent</b> [spent]	<b>spent</b> [spent]

<b>spread</b> [spred]	простягатися	<b>spread</b> [spred]	<b>spread</b> [spred]
<b>take</b> [telk]	брати	<b>took</b> [tuk]	<b>taken</b> ['telkn]
<b>teach</b> [tɪ:C]	вчити	<b>taught</b> [tO:t]	<b>taught</b> [tO:t]
<b>tell</b> [tel]	розказувати	<b>told</b> [tould]	<b>told</b> [tould]
<b>think</b> [Tɪ:Nk]	думати	<b>thought</b> [TO:t]	<b>thought</b> [TO:t]
<b>understand</b> ["Andq'stænd]	розуміти	<b>understood</b> ["Andq'stud]	<b>understood</b> ["Andq'stud]
<b>write</b> [raɪt]	писати	<b>wrote</b> [rout]	<b>written</b> [rɪtn]

## APPENDIX 2

### SUFFIXES AND TERM-ELEMENTS

<p><b>NOUN:</b></p> <ul style="list-style-type: none"> <li>-age (denotes condition or phenomena)</li> <li>-algia (pain)</li> <li>-ance, -ence (denote condition or phenomena)</li> <li>-er, -or (one who)</li> <li>-ia, -iasis (condition, process)</li> <li>-ian (specialist)</li> <li>-ion (-ation, -tion, -ssion) (denote condition or phenomena)</li> <li>-itis (inflammation)</li> <li>-(i)ty (denotes condition or phenomena)</li> <li>-ist (specialist)</li> <li>-logy (study of)</li> <li>-ment (denotes condition or phenomena)</li> <li>-ness (denotes condition or phenomena)</li> <li>-osis (abnormal condition)</li> <li>-th (denotes condition or phenomena)</li> <li>-tomy, -otomy (cut into; incision; section)</li> <li>-ure (denotes condition or phenomena)</li> </ul>	<p><b>ADJECTIVE:</b></p> <ul style="list-style-type: none"> <li>-able (-ible)</li> <li>-al (pertaining to)</li> <li>-ant (-ent)</li> <li>-ar</li> <li>-ary (-ory, -ery)</li> <li>-ful (full of; characterized by; tending to; able to)</li> <li>-ic (pertaining to)</li> <li>-ive (pertaining to)</li> <li>-less (without)</li> <li>-ous (pertaining to)</li> <li>-y</li> </ul> <p><b>ADVERB:</b></p> <ul style="list-style-type: none"> <li>-ly</li> </ul> <p><b>VERB:</b></p> <ul style="list-style-type: none"> <li>-ate</li> <li>-ize (-ise)</li> <li>-fy</li> </ul>
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## APPENDIX 3

### TERM ELEMENTS OF GREEK AND LATIN ORIGIN GREEK, LATIN, ENGLISH AND UKRAINIAN EQUIVALENTS

Greek	Latin	English	Ukrainian
aden/o	glandula, ae <i>f</i>	gland	залоза
adeno	tonsilla, ae <i>f</i>	tonsil	мигдалик
adipo	adeps, adipis <i>m</i>	fat	жир
angi/o	vas, vasis <i>n</i>	vessel	судина
alg/o	dolor, oris <i>m</i>	pain	біль
arthr/o	articulatio, onis <i>f</i>	joint	суглоб
-carcin	cancer, cri <i>m</i>	ancer	рак
cardi/o	cor, cordis <i>n</i>	heart	серце

crino-	separo, are; secreno, ere	to secrete	виділяти
cryo	frigiditas, atis <i>f</i>	chill; cold	холод
ctino	findere; separare	to cleave; to divide	розділяти
cyt/o	cellula, ae <i>f</i>	cell	клітина
dermo-	cutis, is <i>f</i>	skin	шкіра
dia-	trans	through	через, крізь
diastole	dilatation, onis <i>f</i>	dilatation	розширення
echo	sonus	sound	звук
ectom-	excisio, onis <i>f</i>	excision	вирізання
-emia	status sanguinis	blood condition	стан крові
encephalo	cerebrum, i <i>n</i>	brain	головний мозок
endo-	in, internus, a, um	within, inner	внутрішній
enter-	intestinum tenue	small intestine	тонка кишка
epi-	super; supra	above	над
erythr/o	rubber, bra, brum	red	червоний
glos-	lingua, ae <i>f</i>	tongue	язик
h(a)em/o	sangius, inis <i>m</i>	blood	кров
horm-	stimulo, are	to stimulate	стимулювати
hyper-	super	above	над
hypo-	sub, infra	under, below	під
immuno-	immunis, e	protection	захист
leuk/o	albus, a, um	white	білий
lith-	calculus, i <i>m</i>	stone, calculus	камінь, конкремент
-lysis	dissolutio, onis <i>f</i>	dissolution	розчинення
-megaly	cresco, ere	to enlarge	збільшувати; рости
meningo	tunica, ae <i>f</i>	membrane	оболонка
mono-	unus, a, um	one	один, єдиний
myc/o	fungus, i <i>m</i>	fungus, mold	грибок
mys	musculus, i <i>m</i>	muscle	м'яз
neur/o	nervus, i <i>m</i>	nerve	нерв
nephro	ren, renis, <i>m</i>	kidney	нирка
-oma	tumor, oris, <i>m</i>	swelling, tumour	пухлина
oo-	ovun, i <i>n</i>	egg	яйце
-osis	status aegrotus	abnormal condition	хворий
para-	proxime	near	близько
path-	morbus, i <i>m</i>	disease, illness	хвороба
peri-	circum	around	навколо
phag/o	edo, ere	to eat	поїдати
pharmacy/o	medicamentum, i <i>n</i>	medication, drug	лікарський препарат
phleb/o	vena, ae, <i>f</i>	vein	вена
pneum/o	pulmo, onis <i>m</i>	lung	легеня
poly-	multum	many	багато
-ptosis	cadentio, onis <i>f</i>	drooping, prolapse	опущення; спадаючий
py/o	pus, puris <i>n</i>	pus	гній
rhino	nasus, i <i>m</i>	nose	ніс
-rrhoea	fluctio, onis <i>f</i>	flow	витікання
scopo-	inspicio, ere	visual examination	обстеження
somato-	corpus, oris <i>m</i>	body	тіло
sten(osis)	angustus, a, um	narrow, tight	вузький
systole	contractio, onis <i>f</i>	contraction	скорочення

tachy-	celer, eris, ere	fast, quick	швидкий
thromb/o	claustrum, i n	clot	згусток
tom-	seco, are	to cut	різати
tox/o	venenum, i n	poison	отрута
-trophy	nutritio, onis f	nourishment	живлення
ur/o	urina, ae f	urine	сеча

## КОРОТКИЙ ДОВІДНИК З ПРАВИЛ СЛОВОТВОРЕННЯ

В англійській мові нові слова можуть утворюватися за допомогою таких способів:

### 1. Складання, наприклад:

*head* – голова + *ache* – біль = *headache* – головний біль

*eye* – око + *ball* – куля, кулька = *eyeball* – очне яблуко

У складних словах наголошується перший елемент, наприклад: **headache** ['hedelk], **eyeball** ['albO:l].

Перший з двох поспіль іменників може виступати означенням та перекладатися українською як прикметник чи іменник родового відмінка: *blood cells* – клітини крові, кров'яні клітини; *brain damage* – ушкодження мозку.

### 2. Афіксації, тобто за допомогою суфіксів та префіксів.

За допомогою суфіксів **-er, -or** утворюються іменники на позначення особи – виконавця дії чи представника професії: *to research* – досліджувати + *er* = *researcher* – дослідник; *to build* – будувати + *er* = *builder* – будівельник; *to found* – засновувати + *er* = *founder* – засновник.

За допомогою суфіксів **-er, -or** утворюються іменники на позначення інструмента, приладу, наприклад: *to retract* – відводити назад, відтягувати + **or** = *retractor* – ранорозишрювач, ретрактор; *to calculate* – вираховувати, підраховувати + **or** = *calculator* – калькулятор.

Префікс **re-** означає повторення дії: *rewrite* – переписати, *rebuild* – перебудувати; *redesign* – переконструювати; зворотню дію: *to act* – діяти – *to react* протидіяти, чинити *opir*. Суфікси і префікси у таких словах, як правило, ненаголошені.

### Найуживаніші суфікси англійської мови:

Суфікси іменників: **-age, -ance(ence), -ancy(ency), -er(or), -ian, -ing, -ion, -(i)ty, -ist, -ist, -mess, -ness -th, -ure, -y.**

Суфікси прикметників: **-able(ible), -al, -ant(ent), -ar, -ary(ory, ery), -ful, -ian, -ic(al), -ing, -ish, -ive, -less, -ous, -y.**

Суфікси числівників: **-th, -teen, -ty.**

Суфікси прислівників: **-ly.**

Суфікси дієслів: **-ate, -ize(ise), -y, -en, -fy.**

### Основні префікси:

**a-, ab-, be-, com-, con-, de-, dis-, ex-, il-, im-, in-, inter-, intra-, it-, over-, per-, pre-, re-, sub-, un-.**

### Префікси із заперечувальним значенням:

<b>un-</b>	uncomfortable	незручний
	unlock	відчиняти
<b>in-</b>	indirect	непрямий
<b>il-</b>	illogical	нелогічний
<b>ir-</b>	irregular	неправильний
<b>im-</b>	impossible	неможливий
<b>dis-</b>	dislike	не любити
	dishonest	нечесний

<b>mis-</b>	misunderstand	неправильно зрозуміти
<b>Префікси з різним значенням:</b>		
<b>re-</b>	rewrite	переписати
<b>over-</b>	overwork	перетрудитися
<b>under-</b>	underpay	недоплачувати
<b>post-</b>	postwar	повоєнний
<b>pre-</b>	pre-war	довоєнний
<b>counter-</b>	counteraction	протидія
<b>ex-</b>	ex-minister	колишній міністр

3. **Конверсії** – коли слова пишуться та вимовляються однаково, але належать до різних частин мови, і, відповідно, виконують різні синтаксичні функції: *to work* – працювати, *work* – робота; *to help* – допомагати, *help* – допомога; *drop* – крапля, *to drop* – крапати, *стікати краплями*.

## PRACTICAL GRAMMAR GUIDE (КОРОТКИЙ ГРАМАТИЧНИЙ ДОВІДНИК)

### ІМЕННИК (NOUN)

Іменник є частиною мови, що позначає назви предметів, людей, тварин, рослин, речовин і понять і відповідає на питання: хто? або що? Іменники мають два числа: однину (Singular) і множину (Plural). В англійській мові в однині іменник не має ніяких особливостей та спеціальних показників. Форма множини більшості іменників утворюється за допомогою додавання закінчення -s (-es):

*Таблиця 1.*

Іменники, що мають в однині закінчення:	Закінчення у множині:	Приклади
глухі та дзвінки приголосні та голосні	-s	doctor – doctors student – students uncle – uncles
-s, -ss, -x, -ch, -sh	-es	research – researches box – boxes
-у з попередньою голосною	-s	day – days
-у з попередньою приголосною	-y → -i + -es	body – bodies remedy – remedies
-f, -fe	-f, -fe → v + -es	life – lives

Ряд іменників мають особливі форми множини, наприклад: *child* – *children*, *foot* – *feet*, *man* – *men*.

### Відмінки (CASES)

Іменники в англійській мові мають два відмінки: загальний (Common Case) і присвійний (Possesive Case). Загальний відмінок в англійській мові не має жодного показника. Він є словниковою формою іменника. Іменник у загальному відмінку може виконувати у реченні функції підмета, іменної частини складеного присудка, додатка, означення й обставини. Присвійний відмінок передає значення належності, яка в українській мові передається родовим відмінком. Іменник у присвійному відмінку слугує означенням до іншого іменника: *a man's leg* – нога людини, *cow's milk* – коров'яче молоко. Іменник у

присвійному відмінку має закінчення -'s, а якщо іменник у множині закінчується на -s, то додається лише апостроф ('): student's book; students' books.

### АРТИКЛЬ (ARTICLE)

АРТИКЛІ: неозначений (**a/an**) та означений (**the**) входять до так званої групи означень іменника: *Give me a pen.* Тут мова йде про яку-небудь ручку. *There is a pen.* Тут мова йде саме про ручку, а не інший предмет. *Give me the pen.* У цьому випадку йдеться про певну ручку. *There is the pen.* (той хто слухає/говорить знає, про яку ручку іде мова); (**an = a** (перед словом, що починається на голосний **an apple, an idea**). Неозначений артикль не вживається з іменниками у множині, а також з необчислюваними іменниками.

Таблиця 2.

Іменники	a/an	the	no article
Обчислювані в однині	a tree an apple	the apple the tree	-
Необчислювані в множині		the trees the apples	trees apples
Необчислювані		the sugar the water (певна кількість)	sugar water

Необчислювані іменники **news, advice, weather, progress, information, luggage** з неозначеним артиклем **a** не вживаються. *This is welcome news (advice).* – Це приємні новини (слухна порада). *I like cold weather.* – Мені подобається прохолодна погода.

Зверніть увагу на те, як виражається значення обчислюваності іменників, коли той, хто говорить, має потребу це підкреслити: *Here is an interesting item (piece) of news (information).* – Ось одна цікава новина (інформація). *Give me a bit (word) of advice.* – Дайте мені хоча б одну пораду. *How many pieces of luggage have you got?* – Скільки у вас місць у багажу?

Означений артикль **the** вживається перед назвами:

Таблиця 3.

Готелів	the Europa Hotel, the Ambassador Hotel
Суден	the Queen Elizabeth, the Titanic
Каналів	the Suez
Річок	the Dniper River, the Thames
Морів, океанів	the Black Sea, the Pacific Ocean
Груп островів	the Canaries (Canary Islands)
Гірських пасм	the Alps, the Caucasus (Mountains)
Частин світу	the South
Країн, областей, що становлять групове поняття	the United Kingdom, the United States

Артикль **the** не вживається перед:

Іменами людей (кличками тварин)	Mary, John Carlston, Spot
Назвами міст, вулиць, майданів, вокзалів	Atlantic City, London, Kreshchatik Street, Trafalgar Square, Times Square, Victoria Station, University Station
Назвами озер, окремих островів чи гір	Lake Ontario, Chomolungma, Mount Everest
Материків	Europe, Australia

Порівняйте:

Shevchenko's birthplace (без артикля)

місце народження Шевченка

Tolstoy's library

бібліотека, котра належала Толстому

the Shevchenko museum (з артиклем)

музей Шевченка

the Tolstoy library

бібліотека імені Толстого

У деяких виразах та словосполученнях артикль відсутній, наприклад: after breakfast, go by plane, on Monday, according to schedule.

Іменники після слів **kind, type, sort, style** вживаються без артикля: *What kind of person is she? What sort of thing(s) did you mean?*

Артиклі не вживаються перед назвами хвороб, наук: **gastritis, Anatomy**.

Артиклі не вживаються, коли власним іменам передують іменники, які означають звання: **Dr. Smith, Prof. Murphy**.

### ЗАЙМЕННИКИ (PRONOUNS)

Займенник – це повнозначна частина мови, що позначає предмет або ознаку предмета, але не називає його. Займенники поділяються на кілька груп, кожна з яких має свої власні граматичні характеристики: *we* – ми, *who* – хто, *that* – той, *some* – трохи тощо.

Займенник зазвичай уживається в реченні замість іменника або прикметника, іноді замість числівника й прислівника.

До **особових займенників (Personal Pronouns)** належать:

Таблиця 4.

	Називний відмінок	Об'єктний відмінок
Однина	I я he він she вона it воно, він, вона	me мені, мене him йому, його her їй, їй it йому/їй, його/її
Множина	we ми you ви, ти, Ви they вони	us нам, нас you вам, вас them їм, їх

Займенник "I" завжди пишеться з великої літери.

Займенники *he/she* уживаються щодо істот; *it* – щодо неістот: неживих предметів, абстрактних понять і тварин.

Займенник *it* часто використовується як формальний підмет у безособових реченнях, у яких ідеться про погоду, час, відстань і різні виміри. *It's raining* . – *Іде дощ*. *It's very cold outside*. – *На вулиці дуже холодно*. *It's five o'clock*. – *Зараз п'ята година*. *It's forty degrees above zero*. – *Зараз сорок градусів тепла*.

**Присвійні займенники (Possessive Pronouns)** в англійській мові вживаються набагато частіше, ніж в українській мові, і мають дві форми: одна використовується як прикметник (при іменнику), інша (абсолютна) – як іменник (незалежно).

Таблиця 5.

Форма	Особові	Присвійні	Абсолютна форма
Однина	I he she it	my his her its	mine his hers its
Множина	we you they	our your their	ours yours theirs

Присвійні займенники-означення вживаються як означення при іменнику. Присвійні займенники з іменниками вживаються у функції підмета, додатка або іменної частини присудка (за відсутності іменника): *His thoughtful grey eyes seemed to see everything.* – Його задумливі сірі очі, здається, бачили все, що відбувалося довкола. *This is my test paper, but where is yours?* – Це моє тестове завдання, а де твоє? *My problems are no business of yours.* – Мої проблеми вас не стосуються.

### Вказівні займенники (Demonstrative Pronouns)

Таблиця 6.

Однина	Множина
this – цей, ця, це that – той, та, те	these – ці those – ті

До вказівних займенників також належать **such** і **so**.

У загальному випадку займенник **this** указує на більшу наближеність відповідного предмета до мовця, ніж займенник **that**, що відповідає смислового розходженню між словами “цей” і “той”. *Take this book and I'll take that one.* – Візьміть цю книгу, а я візьму ту. Займенник **that** вказує на особу, поняття, подію, предмет віддалені в часі або в просторі. Займенник **that** може використовуватися як слово-замінник, щоб уникнути повторення того самого іменника (з означеним артиклем): *The climate here is like that of France.* – Цей клімат схожий на клімат Франції. *Do not be one of those who can do anything.* – Не будьте одним з тих, хто вмє робити все.

### Питальні займенники (Interrogative Pronouns)

До питальних займенників належать: **who, whom** – хто, кого, кому; **whose** – чий; **which** – який, котрий; **what** – що, який; **when** – коли; **where** – де, куди; **why** – чому; **how** – як.

Займенник **who** виступає у функції іменника, займенник **whom** – це об'єктна форма займенника **who**, що використовується переважно в письмовому мовленні. У сучасній англійській мові спостерігається тенденція до вживання єдиної форми займенника **who** у будь-якій позиції.

Займенники **what, which** і **whose** уживаються як у ролі іменника, так і в ролі прикметника й займенника. Займенники **when, where, why** і **how** використовуються як прислівники. Якщо займенник **who** або **what** є підметом, то він узгоджується з дієсловом в однині: *What is it?* – Що це? *What is he?* – Хто він за професією? *Who has just came?* – Хто щойно прийшов? *But what are they?* – Але що вони за люди?

Якщо займенник **who** або **what** ставить запитання до додатка, то дієслово має форму однини або множини залежно від числа підмета: *Who were his friends?* – Марк і Джон. – Хто були його друзями? – Марк і Джон. *What responsibilities and obligations do you suggest during the first year?* – За що я відповідатиму та які обов'язки матиму протягом першого року роботи?



Як питальні займенники-прикметники уживаються **which** і **what**. Займеннику **which** надається перевага, якщо мовець припускає вибір з обмеженої кількості можливостей, займенник **what** вживається в ситуації необмеженого вибору: *I'm nearly out of petrol. – Which grade do you need? – Бензин у мене майже закінчився. – Який бензин вам потрібен? What/which measures are effective to prevent the development of infectious diseases? – Які заходи є ефективними для попередження інфекційних хвороб?*

### Відносні займенники (Relative Pronouns).

Відносні займенники вводять означальні підрядні речення. Як відносні займенники в англійській мові використовуються питальні займенники, а також займенник **that**.

До відносних займенників належать: **who** – хто, що; **whose** – чий; **which** – який, котрий; **what** – що, який, котрий; **when** – коли; **where** – де, куди; **why** – чому; **how** – як.

Відносний займенник **who** може стосуватися тільки людей, займенник **which** – тільки неживих об'єктів і тварин. Займенник **that** може стосуватися як тих, так й інших. Займенник **which**, на відміну від інших відносних займенників, може стосуватися не одного іменника, а цілого речення.

### ПРИКМЕТНИК (ADJECTIVE)

Прикметник – це повнозначна частина мови, що позначає ознаку предмета. За значенням прикметники бувають якісними (*large* – великий, *small* – маленький, *heavy* – важкий, *brave* – хоробрий) і відносними (*wooden* – дерев'яний, *central* – центральний) тощо.

В англійській мові, як і в українській, прикметники утворюють два ступені порівняння: вищий (*deeper* – глибший, *more interesting* – цікавіший) і найвищий (*the biggest* – найбільший, *the most interesting* – найцікавіший). При цьому необхідно пам'ятати, що відносні прикметники не мають ступенів порівняння й не сполучаються із прислівником *very* (дуже).

### Вищий ступінь порівняння прикметників (Comparative Degree).

Вищий ступінь прикметників в англійській мові може утворюватися синтетично (додаванням суфікса *-er*) або аналітично (за допомогою конструкції зі словом *more*).

1. Синтетично утворюють вищий ступінь односкладові прикметники (крім *right* і *wrong*), а також частина двоскладових прикметників (усі, що закінчуються на *-y*, а також прикметники *clever*, *narrow*, *quiet*, *simple*), наприклад:

Таблиця 7.

Нейтральний ступінь (Positive)	Вищий ступінь (Comparative)
deep – глибокий	deeper – глибший
hard – важкий	harder – важчий
big – великий	bigger – більший
simple – простий	simpler – простіший
fat – жирний	fatter – жирніший
easy – легкий	easier – легший
narrow – вузький	narrower – вужчий

2. Багато двоскладових прикметників можуть утворювати вищий ступінь як синтетично, так і аналітично, наприклад: *common* (розповсюджений) – *commoner* / *more common* (більш розповсюджений); *polite* (чемний) – *politer*/*more polite* (більш чемний).

3. Тільки аналітично вищий ступінь утворюють двоскладові прикметники, що закінчуються на *-ing*, *-ed*, *-ful* і *-less*, а також прикметники, що складаються із трьох або більше складів. У деяких випадках спосіб утворення вищого ступеня двоскладових прикметників слід встановлювати за словником, наприклад: *eager* (енергійний) – *more eager* (енергійніший) *intelligent* (розумний) – *more intelligent* (розумніший).

4. Для позначення спадання ступеня прояву якості замість займенника **more** використовується займенник **less**, наприклад: *less interesting* – менш цікавий, *less expensive* – менш дорогий.

5. Прикметник у вищому ступені може мати при собі уточнюючі слова (означальні займенники, прислівники) **much, many** (перед **more** + іменник у множині), **far, a lot, lots** – набагато, значно, **any** – скільки-небудь, **rather** – досить, **a little, a bit** – трохи, **even, all the** – ще, **any the** – ще скільки-небудь, **none the** – ще анітрохи не. Слова *any, no, a bit* і *a lot*, як правило, не використовуються при прикметниках у вищому ступені, що мають при собі іменники.

6. Синтетична форма вищого ступеня не використовується, якщо порівнюються дві можливі характеристики того самого предмета: *She is more nice than wise.* – Вона скоріше мила, ніж розумна.

7. Кілька прикметників утворюють вищий ступінь від інших коренів: *good – better; little – less; bad – worse; old – elder; much, many – more; far – farther, further.*

### Найвищий ступінь порівняння прикметників (Superlative Degree)

Найвищий ступінь прикметників в англійській мові може утворюватися синтетично (додаванням суфікса **-est**) або аналітично (за допомогою конструкції зі словом **most**).

1. Синтетично утворюють найвищий ступінь односкладові прикметники (крім **right i wrong**), а також частина двоскладових прикметників (усі, що закінчуються на *-y*, а також прикметники **clever, narrow, quiet, simple**), наприклад:

Таблиця 8.

Нейтральний ступінь (Positive)	Найвищий ступінь (Superlative)
deep – глибокий	the deepest – найглибший
hard – важкий	the hardest – найважчий
big – великий	the biggest – найбільший
thin – тонкий	the thinnest – найтонший
lovely – чарівний	the loveliest – найчарівніший

2. Багато двоскладових прикметників можуть утворювати найвищий ступінь як синтетично, так і аналітично, наприклад: *pleasant* (приємний) – *the pleasantest/the most pleasant* (найприємніший), *severe* (суворий) – *the severest/the most severe* (найсуворіший).

3. Тільки аналітично утворюють найвищий ступінь двоскладові прикметники, що закінчуються на **-ing, -ed, -ful** і **-less**, а також прикметники, що складаються із трьох або більше складів.

Таблиця 9.

Нейтральний ступінь (Positive)	Найвищий ступінь (Superlative)
interesting – цікавий	(the) most interesting – найцікавіший
boring – нудний	the most boring – найнудніший

4. Кілька прикметників утворюють найвищий ступінь від інших коренів або мають кілька форм найвищого ступеня:

Таблиця 10.

Нейтральний ступінь (Positive)	Найвищий ступінь (Superlative)
good – добрий	(the) best – найкращий
bad – поганий	(the) worst – найгірший
much, many – багато	(the) most – найбільший

little – маленький, мало	(the) least – найменший
old – старий	(the) oldest – найстаріший
	(the) eldest – найстарший
far – віддалений, дальній	(the) farthest – найвіддаленіший
	(the) furthest – найдальший

5. Прикметники в найвищому ступені, як правило, уживаються з означеним артиклем **the** або присвійним займенником. Без артикля вживаються прикметники в найвищому ступені, якщо порівнюється ступінь прояву якої-небудь характеристики того самого предмета в різних ситуаціях, наприклад: *She feels best when she's taken a bath.* – Вона почуває себе найкраще після ванни.

### ПОРЯДОК СЛІВ У РЕЧЕННІ.

На відміну від української мови, порядок слів в англійській мові строго фіксований, оскільки є одним з основних засобів вираження відношення між словами. У англійській мові відділяють чотири типи речень:

Розповідне (стверджувальне речення): *Sure, I will help you with your exams.*

Заперечне речення: *I have not heard about this before.*

Запитальне речення: *When did you graduate from the University?*

Наказове речення: *Send a runner for a new tray of instruments.*

#### Розповідні речення (Declarative Sentences).

Особливістю англійського речення у порівнянні з українським розповідним реченням є сталий порядок слів, тобто перше місце посідає підмет, друге – присудок, третє – додаток, четверте – обставина.

Розповідне речення в англійській мові характеризується прямим порядком слів (direct word order), при якому підмет стоїть перед присудком, а додаток – за присудком. Обставина може займати позицію як в абсолютному початку, так і в абсолютному кінці речення.

Таблиця 11.

1. Підмет	2. Присудок	3. Додаток	4. Обставина
<b>The teacher</b> Викладач	<b>asks</b> запитує	<b>the student</b> студента	<b>at the lesson.</b> на занятті.
<b>The student</b> Студент	<b>asks</b> запитує	<b>the teacher</b> викладача	<b>at the lesson.</b> На занятті.

#### Питальні речення (Interrogative sentences)

##### Загальні запитання (General Questions).

Загальне запитання – це запитання до всього речення, на яке відповідь вимагає зворотного порядку слів. При цьому допоміжне (чи модальне) дієслово виноситься наперед (на нульове місце), потім ставиться підмет. Загальне запитання потребує відповіді "так" або "ні", і, як правило, перекладається з часткою *чи*. Воно вимовляється з підвищеною інтонацією в кінці речення: *Does she speak English?* – Чи говорить вона англійською мовою? *Yes, she does.* – Так. *Did he get a certificate of degree in 2001?* – Чи він отримав диплом у 2001 році? *No, he didn't.* – Ні.

##### Спеціальні запитання (Special Questions).

Спеціальні запитання – це запитання до окремих членів речення. Вони завжди починаються питальним словом і вимовляються зі спадною інтонацією.

##### Спеціальні запитання до підмета та його означення

1. Запитання, що стосуються підмета, починаються питальними словами *who* *хто*; *what* *що*, які набувають властивості підмета і потребують прямого порядку слів: *Who speaks English?* – *She speaks English.* *What works well?* – *The engine works well.*

2. Запитання, котрі ставлять до означення підмета, починаються з питальних слів *whose чий, which, what який* і також потребують прямого порядку слів: *Whose sister studies at the institute? – Чия сестра навчається в інституті? What patients are in this dental surgery? – Які хворі перебувають зараз у цьому стоматологічному кабінеті?*

#### Спеціальні запитання до інших членів речення.

Спеціальні запитання, котрі ставлять до другорядних членів речення, починаються з питальних слів **what** що, **whom** кого, кому, **when** коли, **where** де, куди, **why** чому, **how** як, **how many(much)** скільки і потребують, як і загальні запитання, зворотного порядку слів. Проте, на відміну від загальних, у спеціальних запитаннях перед допоміжним (або модальним) дієсловом стоїть питальне слово чи група слів: *What does he read at home? When does he read newspapers?*

#### Побудова розповідних і питальних речень

Таблиця 12.

Місце члена речення	0	0	1	2	3	4
Види речень і типи запитань	Питальне слово до групи присудка	Допоміжне дієслово	Підмет	Присудок	Додаток	Обставина місця, часу.
Стверджувальна форма (прямий порядок)			My friend	reads	books	at home in the evening.
Спеціальне запитання до групи підмета (прямий порядок)			Who  Whose friend	reads  reads	books  books	at home in the evening? at home in the evening
Загальне запитання (зворотний порядок)		Does	my friend	read	books	at home in the evening?
Спеціальні запитання до інших членів речення (зворотній порядок)	What  When  Where	does  does  does	my friend  my friend  my friend	read  read  read	  books  books	at home in the evening? at home? in the evening?

#### СПОСОБИ ВИЗНАЧЕННЯ ПРИСУДКА В АНГЛІЙСЬКОМУ РЕЧЕННІ

Присудок в англійському реченні можна визначити за такими ознаками:

а) за позицією у реченні (слідє після підмета, вираженого іменником, займенником): *Physicians examine patients.*

б) за формальними граматичними показниками, наприклад, закінчення -s(-es) третьої особи однини теперішнього часу; -ed (-d) минулого часу групи Simple: *My sister goes to the institute in the morning. The surgeon operated on the patient yesterday.*

в) за допоміжними дієсловами **do (does, did), to be, to have, shall, will, should, would**: *He has come in time. He was diagnosed bronchitis.*

г) за модальними дієсловами: **can (could), may (might), must, should, ought to, need**: *The doctor could diagnose pneumonia.*

д) за прислівниками, котрі визначають дієслово: *These surgeons always operate successfully.*

### НЕОЗНАЧЕНО-ОСОБОВІ РЕЧЕННЯ

В англійській мові неозначено-особове речення складається з формального підмета *it* (*one, they*) та узгодженого з ним присудка. (Із займенником *it* завжди виступає дієслово пасивного стану.)

*They know that he works here.*

*It is known that he works here.*

Відомо, що він працює тут.

*One knows that he works here.*

### Безособові речення.

Якщо в українському реченні немає підмета, то таке речення називається безособовим. В англійських безособових реченнях, які позначають явища природи, час, відстань чи відчуття, займенник *it* вживається без будь-якого значення, як формальний підмет. На українську мову підмет *it* не перекладається. Присудок англійського безособового речення звичайно складається з дієслова-зв'язки *to be* (будь-якого часу) та іменної частини, у ролі якої може виступати прикметник, іменник або числівник. *It is cold today.* – Сьогодні холодно. *It was autumn.* – Стояла осінь. *It will be warm.* – Буде тепло.

### ЗВОРОТ THERE + TO BE

Коли в центрі уваги того, хто говорить, знаходиться присудок, виражений дієсловами *бути, мати, перебувати, існувати*, тобто, коли йдеться про наявність або відсутність певного предмета, в англійській мові вживається зворот **there + to be**: *There are many foreign issues in our library.* – В нашій бібліотеці багато іноземних видань.

У такому звороті **there** втрачає своє основне значення **там**, а лише вказує, що підмет стоїть після присудка, який перебуває в центрі висловлювання. Переклад таких речень слід починати з обставини місця чи присудка. Після звороту **there is** перед іменником в однині вживається неозначений артикль, у множині артикль випускається. У цьому звороті дієслово **to be** вживається в особовій формі (**was, were, shall be, will be**): *There was a book on the table.* – На столі була книга. *There will be a new hospital in the village.* – У селищі буде нова лікарня.

У заперечній формі після звороту **there + to be**, як правило, вживається займенник **no**, тобто заперечення стосується іменника, а не дієслова, отже, **no** виключає вживання артикля. *There is no book on the table.* – На столі немає (жодної) книги.

### Примітка:

Заперечення **not** вживається у короткій відповіді та у тому разі, коли після звороту йдуть слова: **any, enough, many, much**. *There is not any book on the table.* – На столі немає (жодної) книги. *There is not enough (much) water in the glass.* – У склянці води не досить (небагато).

Щоб утворити питальну форму, треба дієслово **to be** у певній особовій формі відповідного часу поставити перед **there**. *Is there a book on the table?* – Чи є на столі книга?

1) У звороті **there + to be** дієслово **to be** узгоджується з наступним іменником: *There is a book and two pencils on the table.* – На столі книга і два олівці. *There are two pencils and a book on the table.* – На столі два олівці та книга.

2) У звороті **there + to be** замість дієслова **to be** можуть вживатися інші дієслова: **to lie** лежати; **to stand** стояти; **to live** жити; **to grow** рости; **to become** ставати: *There lives a doctor there.* – Там живе лікар.

3) Якщо слово **there** стоїть у кінці речення, то воно перекладається як обставина місця – **там**.

### ФОРМИ ДІЄСЛОВА FORMS OF THE VERB

Таблиця 13.

I	II	III	IV
Інфінітив Infinitive	Форма минулого часу Past Form	Дієприкметник минулого часу Participle II	Дієприкметник теперішнього часу Participle I
V	V <sub>2</sub>	V <sub>3</sub>	V <sub>ing</sub> (V <sub>4</sub> )
to work, to write	worked, wrote	worked, written	working, writing

### ЧАСИ ГРУПИ SIMPLE (INDEFINITE) PRESENT SIMPLE

**Значення форми.** Вживається для позначення звичної, регулярної чи повторюваної дії.

В українській мові відповідає дієслову теперішнього часу недовиконаного виду. *The best students usually participate in Students' research societies.* – Найкращі студенти зазвичай беруть участь у роботі наукових студентських товариств. *The most sensitive sites are normally here.* – Тут знаходяться найчутливіші ділянки.

**Ознаки:** Дієслово у стверджувальному реченні вживається у формі інфінітива без частки **to**; а у 3-й особі однини має суфікс **-s (-es)**. *The nurses and doctor's assistants fulfil their duties carefully.* – Молодші медичні працівники ретельно виконують свої обов'язки. *Every day doctors make morning round at their departments.* – Кожного дня лікарі здійснюють ранковий обхід у своїх відділеннях. *He studies preclinical subjects as he is a second-year student.* – Він вивчає доклінічні предмети, оскільки він студент другого курсу.

**Обставини часу:** прислівники usually, always, sometimes, often, generally, normally, regularly, from time to time, every day (week, month), twice a week, seldom, ever, never зазвичай передують смислому дієслову, але вживаються після дієслова **to be**.

#### Заперечні форми (Negative Sentences).

Заперечні форми **Present Simple** утворюються з використанням допоміжного дієслова **do**, **does** та заперечної частки **not**, що йдуть після підмета перед присудком, вираженим смисловим дієсловом у формі інфінітива без частки **to**. Редукована форма заперечення **don't, doesn't**. Порядок слів у реченні прямий. *We (I, you, they) do not (don't) study the problem of asymmetry in animate and inanimate nature.* – Ми (я, ти, вони) не вивчаємо проблему асиметрії у живій та неживій природі. *He (she) does not (doesn't) work on the problem of artificial blood substitute.* – Він (вона) не працює над проблемою штучних замінників крові. *She does not have signs of the disease.* – У неї немає ознак цієї хвороби.

#### Питальні форми (Interrogative Sentences)

Питальні форми **Present Simple** утворюються з використанням допоміжного дієслова **do**, **does**, що, в залежності від типу запитання, знаходиться в абсолютному початку речення (загальні запитання) або йде після питального слова (спеціальні запитання); далі йде підмет, виражений іменником, займенником, словосполученням тощо, та смислове дієслово у формі інфінітива без частки **to**: *Do you study the adverse reactions of these medicines?* – Чи вивчаєте ви побічні наслідки цих ліків? *Does he work on the problem of artificial blood substitutes?* – Чи він працює над проблемою штучних замінників крові? *What does Anatomy describe?* – Що вивчає анатомія? *What problem do you work on?* – Над якою проблемою ви працюєте?

Запитання до підмета: *Who works on the problem of artificial blood substitute?* – *Хто працює над проблемою штучних замінників крові?*

### PAST SIMPLE

#### Значення форми:

1. Вживається для позначення дій, що відбувалися в минулому та не мають зв'язку з теперішнім часом (діями), причому приналежність дії до минулого часу уточнюється **обставинами часу** (yesterday, last week, last year (month, time, etc.), two days ago, in 1990, on Monday, six years ago) чи іншою минулою дією: *Dr Nixon **taught** at Harvard Medical School last year.* – *Доктор Ніксон викладав у Медичній школі Гарварду минулого року.* *in 1796 English surgeon Edward Jenner **introduced** a vaccination for smallpox.* – *У 1796 англійський хірург Едвард Дженнер запровадив вакцинацію проти віспи.*

2. Вживається для опису низки послідовних дій в минулому: *The students **entered** the laboratory, **prepared** the instruments and materials, and **started** to carry out an experiment.* – *Студенти увійшли до лабораторії, приготували інструменти та матеріали, та розпочали експеримент.* *He **gave** a detailed description of the mechanism of protein synthesis, **illustrated** it with some photos and **answered** all our questions.* – *Він представив детальний опис механізму синтезу білків, проілюстрував його фотографіями та **відповів** на усі наші питання.*

3. Вживається для позначення повторюваних чи звичних дій, що відбувалися протягом якогось проміжку часу, не пов'язаного з теперішнім: *He **spent** four years in the university.* – *Він провчився чотири роки в університеті.* *From 1974 to 1978 Mr Cook often **attended** the Medical Scientific Society of the university he **studied** at.* – *Протягом 1974 –1978 містер Кук часто відвідував наукове медичне товариство університету, де він навчався.*

#### Ознаки:

Дієслово у стверджувальному реченні вживається у формі минулого часу (друга форма).

При цьому правильні дієслова мають суфіксом **-ed (to work – worked, to play – played, to study – studied)**, а неправильні дієслова мають строго зафіксовані та історично усталені форми (to begin – began, to build – built, to say – said).

#### Заперечні форми (Negative Sentences).

Заперечні форми Past Simple утворюються з використанням допоміжного дієслова do у формі минулого часу – did та заперечної частки not, що йдуть після підмета перед присудком, вираженим смисловим дієсловом у формі інфінітива без частки to. Редукована форма заперечення – didn't. Порядок слів у реченні прямиий. *The drug **didn't** stop the spreading of inflammation.* – *Ці ліки не зупинили поширення запалення.* *Because of her unbalanced diet she **didn't** avoid dyspepsia.* – *Через незбалансоване харчування вона не уникла диспепсії.*

#### Питальні форми (Interrogative Sentences)

Питальні форми Past Simple утворюються з використанням допоміжного дієслова did, що, в залежності від типу запитання, знаходиться в абсолютному початку речення (загальні запитання) або йде після питального слова (спеціальні запитання); далі йде підмет, виражений іменником, займенником, словосполученням тощо, та смислове дієслово у формі інфінітива без частки to. ***Did** Louis Pasteur **invent** pasteurization?* – *Чи Луїс Пастер відкрив процес пастеризації?* *When **did** Koch **identify** the causative agent of tuberculosis?* – *Коли Кох виявив збудник туберкульозу?* *Why **didn't** you **attend** the lecture on Physiology yesterday?* – *Чому ви вчора не були на лекції з фізіології?* Запитання до підмета: *Who **defended** the thesis last year?* – *Хто захистив дисертацію минулого року?*

### FUTURE SIMPLE

#### Значення форми:

Вживається для позначення одноразової чи повторюваної дії в майбутньому. В українській мові відповідає дієслову майбутнього часу як доконаного, так і недоконаного виду.

#### Ознаки:

Допоміжне дієслово **shall** (для 1-ї особи) або **will** (для решти осіб) + смислове дієслово у формі інфінітива без частки **to**. *He will be free for most of the summer.* – Він буде вільний майже все літо. *I'll carry you bag.* – Я понесу вашу валізу. *I am not sure that your sister will arrive by 6.15 train.* – Я не впевнений, що ваша сестра прибуде поїздом о 6.15.

**Обставини часу:** **tomorrow** завтра, **next month (year)** наступного місяця (року), дата чи підрядне речення: *Tomorrow we shall meet Russian participants of the 7<sup>th</sup> Congress of Cardiological Societies in Helsinki.* – Завтра в Хельсінкі ми зустрінемо російських учасників 7-го Конгресу членів товариств кардіологів. *They will graduate from the university in 2015.* – Вони закінчать університет у 2015 році. *We shall tell him our address, when he comes.* – Ми скажемо йому нашу адресу, коли він прибуде.

#### Заперечні форми (Negative Sentences).

Заперечні форми **Future Simple** утворюються з використанням допоміжних дієслів **shall, will** та заперечної частки **not**, що йдуть після підмета перед присудком, вираженим смисловим дієсловом у формі інфінітива без частки **to**. Редуковані форма заперечення **will not – won't, shall not – shan't** вживаються здебільшого як розмовний варіант. Порядок слів у реченні прямий. *She has got a bit of headache, so she will not joint us for dinner.* – У неї трохи болить голова, тому вона не буде обідати з нами. *I'm afraid I'll not meet her tomorrow evening.* – На жаль, я не зустріну її завтра ввечері.

#### Питальні форми (Interrogative Sentences)

Питальні форми **Future Simple** утворюються з використанням допоміжних дієслів **shall, will**, що, в залежності від типу запитання, знаходяться в абсолютному початку речення (загальні запитання) або йдуть після питального слова (спеціальні запитання); далі йде підмет, виражений іменником, займенником, словосполученням тощо, та смислове дієслово у формі інфінітива без частки **to**. *Will they outline the present state of research in the field of immunology?* – Чи вони окреслять сучасний стан досліджень в галузі імунології? *When will your paper come out?* – Коли вийде ваша стаття? *Who will make the report on this problem?* – Хто робитиме доповідь з цієї проблеми?

### SIMPLE TENSES

Таблиця 14.

Affirmative sentences	Negative sentences	Interrogative sentences
Senior medical students <b>study</b> clinical subjects.	Junior medical students <b>do not study</b> clinical subjects.	<b>Do</b> junior medical students <b>study</b> clinical subjects? What subjects <b>do</b> junior medical students <b>study</b> ?
Robert Koch identified the causative agent of tuberculosis.	Medieval doctors <b>did not identify</b> the causative agent of tuberculosis.	<b>Did</b> Robert Koch <b>identify</b> the causative agent of tuberculosis? When <b>did</b> Robert Koch <b>identify</b> the causative agent of tuberculosis?
They <b>will graduate from</b> the university in 2015.	They <b>will not graduate from</b> the university in 2015.	<b>Will</b> they <b>graduate from</b> the university in 2015? When <b>will</b> they <b>graduate from</b> the university?

### ЧАСИ ГРУПИ CONTINUOUS

Усі часи **Continuous** позначають дію в її розвитку, протяжності, вказуючи на те, що ця дія має тимчасовий характер.

#### PRESENT CONTINUOUS

Значення форми:



1. Вживається для позначення тривалої, неперервної дії, що відбувається в момент мовлення або у певний відрізок теперішнього часу: *We are now looking for an optimal solution, since there is a choice.* – Зараз ми шукаємо оптимальне рішення, оскільки у нас є вибір.

2. Вживається для позначення майбутньої дії, коли є намір її здійснення або впевненість в її здійсненні: *They are leaving for London next week.* – Вони приїжджають до Лондона наступного тижня.

В українській мові відповідає дієслову теперішнього часу недоконаного виду.

#### **Ознака:**

Дієслово **to be** у Present Simple (**am, are, is**) + смислове дієслово у формі дієприкметника теперішнього часу (Participle I).

**Обставини часу:** now, right now, at this moment, today.

*Dr. Smeeth is examining a patient now. Wait, please.* – Доктор Сміт зараз оглядає пацієнта. Будь-ласка, зачекайте. *Look, this substance is changing its color.* – Погляньте, ця речовина змінює свій колір. *We are visiting the Chicago's Museum of Science and Industry in two days.* – Через два дні ми відвідаємо Чикагський музей науки та промисловості.

## **PAST CONTINUOUS**

#### **Значення форми:**

Вживається для вираження дії, що відбувалася в минулому в певний часовий інтервал, який позначається або обставиною часу, або іншою одночасною дією в минулому: *Susan Wheeler was working in the lab from 3 to 5 p.m. yesterday.* – Учора Сюзан Уїлер працювала в лабораторії з п'ятнадцятої до сімнадцятої години. *Tom was reading out a data while Joan was writing it down.* – Том зачитував вголос дані, а Джоан їх записувала. Також вживається для позначення перерваної, перепиненої дії: *She was working in the lab when her sister came to see her.* – Вона працювала в лабораторії, коли сестра зайшла побачити її. В українській мові підмет у **Past Continuous** відповідає дієслову минулого часу недоконаного виду.

#### **Ознака:**

Дієслово **to be** у Past Simple (**was, were**) + смислове дієслово у формі дієприкметника теперішнього часу (Participle I).

**Обставини часу:** from 6 till (to) 7, all day long, last Saturday, the whole day yesterday.

*Yesterday at noon he was making his report on preleukemic conditions.* – Учора опівдні він робив доповідь про стани, що передують лейкемії. *She was writing her research article when the phone rang.* – Вона працювала над науковою статтею, коли задзвонив телефон. *It was raining heavily and the ambulance was driving hardly seen through the mist.* – Був сильний дощ, і машина швидкої допомоги їхала, ледве бачачи дорогу через туман.

## **FUTURE CONTINUOUS**

#### **Значення форми:**

Вживається для позначення тривалої дії, яка розпочнеться до певного моменту в майбутньому і буде тривати в цей момент: *At 10 a.m. tomorrow he will be having an exam.* – Завтра о 10 він буде складати іспит. *I shall be reading the whole day tomorrow.* – Завтра я читатиму цілий день.

В українській мові підмет у **Future Continuous** відповідає дієслову майбутнього часу недоконаного виду.

#### **Ознака:**

Дієслово **to be** у Future Simple (**shall be, will be**) + смислове дієслово у формі дієприкметника теперішнього часу (Participle I).

**Обставини часу:** the next day, the whole day tomorrow, at 10 p.m.

*We shall be thinking about your proposal.* – Ми поміркуємо над вашою пропозицією. *I shall be waiting for you at 6 p.m. near the University.* – Я буду чекати тебе о 6 вечора біля університету.

**Future Continuous** також вживається для позначення запланованої дії: *I'll be going to the city later.* – Я поїду до міста пізніше.

### Заперечні форми (Negative Sentences).

Заперечні форми часів групи **Continuous** утворюються з використанням заперечної частки **not**, що йде після дієслова **to be**, вжитого в особовій формі та відповідному часі, перед смисловим дієсловом у формі Participle I. Редукована форма заперечення вживається здебільшого як розмовний варіант. Порядок слів у реченні прямий. *Where is Stephen? He is not taking an interview.* – Де Стівен? Його немає на снівбесіді (зараз). *She is not operating the computer, she is skipping through periodicals.* – Зараз вона не працює на комп'ютері, а проглядає періодику. *Sedatives were rather strong, but she was not sleeping yet.* – Хоча заспокійливі були досить сильними, вона все ще не спала. *The baby was not just aimlessly exercising its hands, it was trying to grasp a rattle.* – Немовля не просто безладно гралося своїми ручками, воно намагалося схопити брязкальце. *Yesterday I was't working at the library in the morning, I was outside the city at all.* - Учора я не працювала вранці у бібліотеці, мене взагалі не було в місті.

### Питальні форми (Interrogative Sentences)

Питальні форми **Continuous Tenses** утворюються з використанням відповідних форм дієслова **to be**, вжитого в особовій формі та відповідному часі, яке, в залежності від типу запитання, знаходиться або в абсолютному початку речення (загальні запитання) або йде після питального слова (спеціальні запитання); далі йде підмет, виражений іменником, займенником, словосполученням тощо, та смислове дієслово у формі дієприкметника теперішнього часу (**Participle I**). *Are you filling in case histories now?* - Ти заповняєш зараз історії хвороби? *Look! What are you doing here?* – Що ти тут робиш? *What is he looking for?* – Що він шукає? Запитання до підмета: *Who is waiting for me?* – Хто на мене чекає?

## CONTINUOUS TENSES

Таблиця 15.

Affirmative sentences	Negative sentences	Interrogative sentences
They are waiting for you now.	They are not waiting for you now.	Are they waiting for you now?
Yesterday at noon he was making his report on preleukemic conditions	Yesterday at noon he was not making his report on preleukemic conditions.	Was he making his report on preleukemic conditions at noon yesterday?
I shall be reading the whole day tomorrow.	I shall not be reading the whole day tomorrow.	Will you be reading the whole day tomorrow?

Деякі дієслова не вживаються в **Continuous Tenses**. Це так звані дієслова ментальної дії, емоційного та чуттєвого сприйняття: realize, believe, seem, forget, want, know, prefer, like, love, hate, see, hear, belong, mean, suppose, remember, understand. Ці дієслова вживаються лише в Simple чи Perfect Tenses.

## PERFECT TENSES

Усі часи групи **Perfect** позначають завершену дію, коли на певний момент часу (момент мовлення тощо) наявний факт здійсненої дії чи результат цієї дії.

### PRESENT PERFECT

#### Значення форми:

- 1) **Present Perfect** вживається, коли слід підкреслити результат певної дії, а не власне саму дію: *The scientists have discovered that the neutron has no electrical charge.* – Учені відкрили, що нейтрон не має електричного заряду;
- 2) для вираження дії, яка завершилась, але період часу, в який вона здійснювалась, ще триває: *I have known him all my life.* – Я знав його усе своє життя. *The students have always enjoyed his lectures.* – Студентам завжди подобалися його лекції;
- 3) для вираження дії, яка відбувалась в минулому аж до теперішнього моменту часу (часто з обставинами часу lately, recently, for two hours (days, years), up to now, since)

#### Ознака:

Допоміжне дієслово **to have** у Present Simple (1-а, 2-а особа, 3-я особа множини – **have**, 3-я особа однини – **has**) + смислове дієслово у формі дієприкметника минулого часу (Participle II).

**Обставини часу:** ever, never, hardly ever, just, already, often, seldom, yet, for a long time, since, up to now.

Кострукція **Present Perfect** в українській мові здебільшого відповідає дієслову доконаного виду. *We **have just checked** her with X-rays and echocardiograph.* – Ми щойно виконали її рентген-обстеження та ехокардіографію. *He **has worked** for Liverpool's Dell Owen Hospital all his life.* – Він пропрацював у Делл Оуен госпіталі Ліверпуля усе своє життя.

### PAST PERFECT

**Значення форми:**

**Past Perfect** вживається для позначення дії, яка відбувалася або відбулася до певного моменту в минулому. Цей момент може бути виражений: 1) указівкою на момент часу за допомогою прийменника **by**: *I **had already drawn up** the plan of our research by Tuesday.* – До вівторка я вже окреслив план нашої дослідницької роботи. 2) з допомогою складнопідрядного речення, причому **Past Perfect** може вживатися як у головному, так і у підрядному реченні: *He **had visited** London before, and so the city was not new to him.* – Він був у Лондоні раніше, тому це місто не було для нього новим, незнайомим. *The nurse **had completed** a series of routine medical tests before Dr. Berman came into the ward.* – Медсестра закінчила низку стандартних медичних тестів, коли доктор Берман увійшов до палати.

Кострукція **Past Perfect** в українській мові відповідає дієслову минулого часу доконаного виду.

**Ознака:**

Допоміжне дієслово **to have** у Past Simple (**had**) + смислове дієслово у формі дієприкметника минулого часу (Participle II).

**Обставини часу:** by 5 o'clock, by the end of the year, by the time: *He **had sent** his abstracts to the Congress by the 1<sup>st</sup> of June.* – Він надіслав тези для участі у конгресі до першого червня. *After I **had finished** the inspection of the new device I spoke to the engineer.* – Після того, як я закінчив огляд нового приладу, я звернувся до інженера.

### FUTURE PERFECT

**Future Perfect Tense** вживається не досить часто, як правило, коли мовець хоче підкреслити, що певна дія буде завершена до певного моменту в майбутньому: *Our doctor **will have advised** you before leave.* – Наш лікар проконсультує вас перед тим, як ви поїдете. *You **will have received** the schedule by 5 o'clock.* – Ви отримаєте розклад до п'ятої години.

Кострукція **Future Perfect** в українській мові відповідає дієслову майбутнього часу доконаного виду.

**Ознака:**

Допоміжне дієслово **to have** у Future Simple (shall have, will have) + смислове дієслово у формі дієприкметника минулого часу (Participle II).

**Обставини часу:** till the end of the next week, to the 1<sup>st</sup> of April, by 6 o'clock: *Mary Smith **will have prepared** her report on this problem by 1<sup>st</sup> of March.* – Мері Сміт підготує доповідь з цієї проблеми до першого березня. *I **shall have written** an autobiographical sketch by 2 p.m.* - Я напишу автобіографію до 14 години.

**Заперечні форми (Negative Sentences).**

Заперечні форми часів групи **Perfect** утворюються з використанням заперечної частки **not**, що йде після допоміжного дієслова **to have**, вжитого в особовій формі, перед смисловим дієсловом у формі Participle II. Редукована форма заперечення вживається здебільшого як розмовний варіант. Порядок слів у реченні прямий: *She **has not participated** in any congresses, conferences before.* – Вона раніше не брала участі в якихось конгресах, конференціях. *He **had***

*not visited London before, and so the city was new to him. – Раніше він не відвідував Лондон, тому тому це місто було для нього новим, незнайомим. You will have not received the schedule by 5 o'clock. – Ви не отримаєте розклад до п'ятої години.*

### Питальні форми (Interrogative Sentences)

Питальні форми **Perfect Tenses** утворюються з використанням відповідних форм дієслова **to have**, вжитого в особовій формі та відповідному часі, яке, в залежності від типу запитання, знаходиться або в абсолютному початку речення (*загальні запитання*) або йде після питального слова (*спеціальні запитання*); далі йде підмет, виражений іменником, займенником, словосполученням тощо, та смислове дієслово у формі дієприкметника минулого часу (**Participle II**): *Have you ever met her before? – Чи раніше ви її колись зустрічали? Will you have received the schedule by 5 o'clock? – Чи отримаєте ви розклад до п'ятої години? Had the nurse completed a series of routine medical tests before Dr. Berman came into the ward. – Чи закінчила медсестра низку стандартних медичних тестів, коли доктор Берман увійшов до палати? What has he redone in this experiment? – Що він переробив у цьому експерименті?* Запитання до підмета: *Who has ever been to London? – Хто бував у Лондоні?*

## PERFECT TENSES

Таблиця 16.

	Affirmative sentences	Negative sentences	Interrogative sentences
P r e s e n t	We <b>have just checked</b> her with X-rays and echocardiograph.	We <b>have not checked</b> her with X-rays and echocardiograph.	<b>Have you checked</b> her with X-rays and echocardiograph. What <b>have you checked</b> her with Who <b>has checked</b> her?
P a s t	I <b>had already drawn up</b> the plan of our research by Tuesday.	I <b>had not drawn up</b> the plan of our research by Tuesday.	<b>Had you drawn up</b> the plan of our research by Tuesday? When <b>had you drawn up</b> the plan of our research by ? Who <b>had drawn up</b> the plan of our research by Tuesday?
F u t u r e	Mary Smith <b>will have prepared</b> her report on this problem by 1 <sup>st</sup> of March.	Mary Smith <b>will have not prepared</b> her report on this problem by 1 <sup>st</sup> of March.	<b>Will have</b> Mary Smith <b>prepared</b> her report on this problem by 1 <sup>st</sup> of March? When <b>will have</b> Mary Smith <b>prepared</b> her report on this problem? Who <b>will have prepared</b> a report on this problem?

## СТАН ДІЄСЛОВА

Стан – це форма дієслова, яка показує, чи є підмет речення діячем або об'єктом дії, вираженої присудком. В англійській мові є два стани: the Active Voice (активний стан) і the Passive Voice (пасивний стан).

Форма **активного стану** вживається в реченні, підметом якого є предмет, особа, що й виконує дію, описувану дієсловом (дієслівною формою). Форма **пасивного стану**

вживається в реченні, підметом якого є предмет, на який спрямована дія, виражена дієсловом. Таким чином, об'єкт дієслова в активному стані відповідає підмету дієслова в пасивному стані. *Dr. Smith compiled this dictionary. – Доктор Сміт уклав цей словник. This dictionary was compiled by Dr. Smith. – Цей словник укладений доктором Смітом.*

У пасивному стані немає часів Future Continuous і Future Continuous-in-the-Past.

Пасивний стан вживається, коли виконавець дії очевидний чи важливий або коли дія чи її результат є цікавішими, ніж виконавець. Пасивний стан утворюється за допомогою дієслова to be у відповідному часі й дієприкметника минулого часу.

### PASSIVE VOICE

Таблиця 17.

	Simple	Continuous	Perfect
<b>Present</b>	am is + V <sub>3</sub> are	am is + being + V <sub>3</sub> are	has + been + V <sub>3</sub> have
<b>Past</b>	was + V <sub>3</sub> were	was + being + V <sub>3</sub> were	had + been + V <sub>3</sub>
<b>Future</b>	shall + be + V <sub>3</sub> will		shall + have + been + V <sub>3</sub> will
<b>Future-in-the-Past</b>	should + be + V <sub>3</sub> would		should + have + been + V <sub>3</sub> would

Питальна форма утворюється шляхом перенесення першого допоміжного дієслова на місце перед підметом. *Have the work been done by 3 p.m. today? When will the work been done? Whom was she asked about?* Заперечна форма утворюється за допомогою заперечення **not**, яке ставиться після першого допоміжного дієслова. *The work was not done last week. The work will not done tomorrow.*

Як і в українській мові, іменник, що виконує роль додатка в реченні активного стану, у реченні пасивного стану стає зазвичай підметом. Якщо у зворотах із пасивним станом указаний діяч, то в українській мові він позначається орудним відмінком, а в англійській йому передують прийменник by. Вживання часу в англійському пасивному стані принципово не відрізняється від його вживання в активному стані.

### ЗВЕДЕНА ТАБЛИЦЯ ЧАСІВ СТВЕРДЖУВАЛЬНОЇ ФОРМИ

Таблиця 18.

Час	Present	Past	Future
<b>Simple (Active Voice)</b>	V V <sub>s</sub>	V <sub>2</sub>	shall + V will
<b>Simple (Passive Voice)</b>	am is + V <sub>3</sub> are	was + V <sub>3</sub> were	shall + be + V <sub>3</sub> will
<b>Continuous (Active Voice)</b>	am is + V <sub>ing</sub> are	was + V <sub>ing</sub> were	shall + be + V <sub>ing</sub> will
<b>Continuous (Passive Voice)</b>	am is + being + V <sub>3</sub> are	was + being + V <sub>3</sub> were	—

<b>Perfect (Active Voice)</b>	have + V <sub>3</sub>	had + V <sub>3</sub>	shall + have + V <sub>3</sub> Will
<b>Perfect (Passive Voice)</b>	have + been + V <sub>3</sub>	had + been + V <sub>3</sub>	shall + have been + V <sub>3</sub> will

**ЗВЕДЕНА ТАБЛИЦЯ ПИТАЛЬНОЇ ФОРМИ  
INTERROGATIVE FORM**

*Таблиця 19.*

<b>Tense</b>	<b>(1) Questioning word</b>	<b>(2) Auxiliary verb</b>	<b>(3) Subject</b>	<b>(4) Predicate</b>	<b>Example</b>
<b>Present Simple</b> Tense, Active Voice	What	<b>do</b>	I, you, we they	<b>V</b> (study, write)	<b>Do you study?</b> Where <b>does</b> he <b>study</b> ?
<b>Past Simple</b> Tense, Active Voice	Where	<b>does</b>	he, she, it	<b>V</b> (study, write)	When <b>did</b> you <b>go</b> to the Academy?
<b>Future Simple</b> Tense, Active Voice	When	<b>did</b>	I, he, she, it, you, we, they	<b>V</b> (study, write)	Where <b>will</b> they <b>go</b> tomorrow?
<b>Present Simple</b> Tense, Passive Voice	Why	<b>shall</b>	I, we	<b>V</b> (study, write)	Where <b>is</b> this hospital <b>built</b> ?
<b>Past Simple</b> Tense, Passive Voice	How	<b>will</b>	he, she, it, you, they	<b>V<sub>3</sub></b> (studied, written)	What medicine <b>was</b> your doctor <b>prescribed</b> ? <b>Were</b> the patients <b>examined</b> ?
<b>Future Simple</b> Tense, Passive Voice	How many	<b>was</b>	I, he, she, it	<b>V<sub>3</sub></b> (studied, written)	When <b>will</b> the polyclinic <b>be closed</b> ?
<b>Present Continuous</b> Tense, Active Voice	How much	<b>were</b>	you, we, they	<b>be + V<sub>3</sub></b> (be studied, be written)	What <b>is</b> he <b>writing</b> now? What <b>are</b> you <b>doing</b> ?
<b>Past Continuous</b> Tense, Active Voice		<b>am</b>	I	<b>V<sub>ing</sub></b> (studying, writing)	Where <b>was</b> a doctor <b>performing</b> on the operation?
<b>Future Continuous</b> Tense, Active Voice		<b>is</b>	he, she, it	<b>V<sub>ing</sub></b> (studying, writing)	What <b>will</b> you <b>be doing</b> at 3 p.m.?
<b>Present Continuous</b> Tense, Passive Voice		<b>are</b>	you, we, they	<b>be + V<sub>ing</sub></b> (be studying, be writing)	What hospital <b>is</b> your friend <b>being operated</b> on?
<b>Past Continuous</b> Tense, Passive Voice		<b>was</b>	I, he, she, it	<b>being + V<sub>3</sub></b> (being studied, being written)	When <b>was</b> the work <b>being fulfilled</b> ?
<b>Present Perfect</b> Tense, Active		<b>were</b>	you, we, they	<b>V<sub>3</sub></b> (studied, written)	What <b>has</b> he <b>received</b> this week?
		<b>have</b>	I, you, we they	<b>V<sub>3</sub></b> (studied, written)	

Voice	<b>has</b>	he, she, it		
<b>Past Perfect Tense, Active Voice</b>	<b>had</b>	I, he, she, it, you, we, they	<b>V<sub>3</sub></b> (studied, written)	How many articles <b>had</b> the student <b>read</b> by 5 o'clock?
<b>Future Perfect Tense, Active Voice</b>	<b>shall</b> <b>will</b>	I, we he, she, it, you, they	<b>have + V<sub>3</sub></b> (have studied, have written)	What text <b>will</b> Helen <b>have translated</b> by 3 o'clock?
<b>Present Perfect Tense, Passive Voice</b>	<b>have</b> <b>has</b>	I, you, we they he, she, it	<b>been + V<sub>3</sub></b> (been studied, been written)	<b>Has</b> the text <b>been translated</b> today?
<b>Past Perfect Tense, Passive Voice</b>	<b>had</b>	I, he, she, it, you, we, they	<b>been + V<sub>3</sub></b> (been studied, been written)	Where <b>had</b> the patient <b>been examined</b> ?
<b>Future Perfect Tense, Passive Voice</b>	<b>shall</b> <b>will</b>	I, we he, she, it, you, they	<b>have + been + V<sub>3</sub></b> (have been studied, have been written)	When <b>will</b> the hospital <b>have been modernized</b> ?

### ДІЄСЛОВА TO BE ТА TO HAVE

В англійській мові існують особливі дієслова. Це – **to be**, **to have**. Вони мають не лише певні смислові значення **to be** – бути, **to have** – мати, але також служать допоміжними дієсловами для утворення різних часів і форм, дієслово виступає у ролі дієслова зв'язки.

### ОЗНАКИ ФУНКЦІОНАЛЬНОЇ ВІДМІННОСТІ ДІЄСЛОВА TO BE

Таблиця 20.

Функції	Місце в реченні	Приклади	Особливості перекладу
1. Смислове дієслово	1) перед іменником з прийменником або прислівником місця;  2) після дієслова there, перед іменником без прийменника	My friend is at the laboratory. I was there yesterday.  There are many wards in this clinic.	Перекладається: бути, перебувати; у теперішньому часі часто випускається. Перекладається: мати, перебувати, існувати. Якщо є обставина місця і часу, то переклад речення слід починати з них.
2. Дієслово-зв'язка	1) перед іменником, прийменником (за винятком прийменника of), прикметником або числівником; 2) після підмета-іменника типу aim, plan, function, purpose, task, etc., перед герундієм.	He is a student. The results of the treatment were satisfactory. There are 15 students in the group.  Our task is preventing many diseases.	Перекладається: бути, становити; у теперішньому часі часто випускається.  Перекладається: полягати; у теперішньому часі часто випускається.
3. Допоміжне дієслово	1) перед ing-form (Participle I) для утворення часів групи Continuous;	The students are listening to the lecture.	У цих випадках дієслово to be окремо не перекладається.

	2) перед Participle II для утворення пасивного стану.	They were invited by their teacher.	
4. Частина модальної конструкції	1) перед інфінітивом (дія за заздалегідь наміченим планом, значення обов'язку)	He is to go there. We are to study diseases of inner organs.	Виражає те, що повинне бути.

### ОЗНАКИ ФУНКЦІОНАЛЬНОЇ ВІДМІННОСТІ ДІЄСЛОВА *TO HAVE*

Таблиця 21.

Функції	Місце в реченні	Приклади	Особливості перекладу
1. Смысловое дієслово	Перед іменником (часто з означеннями)	He has a lot of medical books.	Перекладається: він має..., у нього є.
2. Допоміжне дієслово для утворення часів групи Perfect	Перед дієсловом у формі Participle II	I have read this book. He has been working here for 10 years.	У цих випадках дієслово to have окремо не перекладається
3. Модальне значення необхідності, зумовлене обставинами	Перед дієсловом у формі інфінітиву	You will have to repeat it.	Виражає необхідність здійснення дії, позначеної інфінітивом (доведеться зробити).

### МОДАЛЬНІ ДІЄСЛОВА (MODAL VERBS)

1. Дієслова can, may, ought (to), must, could, might, shall, should, will, would належать до групи модальних допоміжних дієслів. При цьому дієслово could є формою минулого часу дієслова can, а дієслово might є формою минулого часу дієслова may. Дієслова need і dare можуть уживатися не тільки як модальні дієслова, але також і як повнозначні дієслова.

2. Як правило, модальні дієслова не вживаються самотійно, а тільки в сполученні з інфінітивом без частки to.

3. Модальні дієслова виражають імовірність, необхідність, можливість, бажаність здійснення дії, вираженої основним дієсловом.

4. Модальне дієслово завжди ставиться перед формою основного дієслова.

*You may go.* – Ти можеш іти (у тебе є дозвіл на це). *He must have come.* – Мабуть, він уже прийшов.

5. Модальні дієслова не мають закінчення -s у формі 3-ї особи однини часу Present Simple: *She must do it.* – Вона повинна це зробити. *He can do it.* – Він може це зробити.

6. Модальні дієслова не мають безособових форм – інфінітива, герундія й дієприкметника.

7. Дієслова can і may мають форми теперішнього й минулого часу (could і might), а дієслова must, ought і need мають тільки одну форму – теперішнього часу.

8. Питальна й заперечна форми модальних дієслів у Present і Past Simple утворюються без допоміжного дієслова to do. У питальній формі модальне дієслово ставиться перед підметом.

### Модальне дієслово CAN



Модальне дієслово *can* у стверджувальних реченнях позначає фізичну або теоретичну можливість, уміння зробити що-небудь, якщо потрібно виразити, що щось є можливим у принципі, а не щодо цієї конкретної ситуації. *They can help you.* – Вони можуть нам допомогти. *My brother can speak five languages.* – Мій брат розмовляє (може розмовляти) п'ятьма мовами. *They can not help us.* – Вони не можуть допомогти нам.

Це модальне дієслово може перекладатися, як: *можливо, ймовірно, невже* (цим воно виражає припущення, сумнів, подив); *не може бути* (виражає неймовірність у заперечних реченнях). Модальне дієслово *can* має тільки дві часові форми – Present Form (*can*) і Past Form (*could*). Хоча вони можуть позначати також дії, які, можливо, відбудуться в майбутньому. Для вираження майбутнього часу можна використовувати також його еквівалент *to be able to*.

### Модальне дієслово COULD

Модальне дієслово *could* є формою минулого часу дієслова *can* і в стверджувальних реченнях позначає фізичну або теоретичну можливість або вміння зробити що-небудь, якщо потрібно виразити, що щось було можливим у принципі, а не щодо якої-небудь конкретної ситуації в минулому. *They could help you.* – Вони могли тобі/вам допомогти. *It could be seen there the day before yesterday.* – Там це можна було побачити позавчора. Модальне дієслово *could* може виражати ввічливе прохання. *Could you help me with this bag?* – Ви не могли б допомогти мені із цією сумкою? *Could I have this book with me?* – Можна мені взяти цю книжку із собою? *I could help you.* – Я міг би вам допомогти (зараз).

У стверджувальних реченнях *could* може вживатися також для вираження припущення, що щось може відбуватися зараз. При цьому дієслово *could* виражає менший ступінь упевненості в можливості здійснення дії, ніж *can*.

### Модальне дієслово MAY

Модальне дієслово *may* позначає можливість, яка допускається, дозвіл зробити що-небудь (на відміну від теоретичної можливості, що виражається дієсловом *can*). У цьому значенні вживається тільки у стверджувальній формі. *They may help you.* – Вони можуть (їм дозволено) вам допомогти. *You may be right.* – Ти можеш мати рацію.

Також за допомогою цього дієслова виражається припущення, яке ґрунтується на непевності. У стверджувальних реченнях, які виражають припущення про те, що зараз або в майбутньому щось може відбутися (статися), використовуються дієслова *may* і *might*. Між *may* і *might* у цьому випадку практично немає різниці, однак *might* виражає більший ступінь сумніву в можливості описуваної події. *It may snow tomorrow.* – Завтра може піти сніг. *It might rain tomorrow.* – Завтра може піти дощ (хоча це й малоімовірно). *They may have been discussing the question for two hours.* – Можливо, вони вже дві години обговорюють питання. Для вираження майбутнього часу можна використовувати також його еквівалент *to be allowed to*.

### Модальне дієслово MUST

Дієслово *must* виражає необхідність, моральний обов'язок і відповідає в українській мові словам *повинен, потрібно, треба*. *I must go to work today.* – Я повинен прийти на роботу сьогодні. *You must do it as you are asked.* – Ти повинен зробити так, як тебе просили.

Дієслово *must* не має форм ні минулого, ні майбутнього часу, уживається тільки в теперішньому часі. Для вираження повинності в майбутньому й минулому вживається його еквівалент *to have to*. Якщо конструкція *to have to* уживається в теперішньому часі, вона позначає вимушену (об'єктивну) повинність.

*Must* виражає внутрішньо усвідомлену необхідність: *треба, потрібно, необхідно, повинен*. *I must do it today.* – Я повинен зробити це сьогодні. *Must* виражає також настійну пораду: *повинен, потрібно*. *You must go to the doctor.* – Ти повинен піти до лікаря.

Модальне дієслово *must* у заперечній формі має значення заборони: *не можна, не повинен, забороняється*.

**ОЗНАКИ РОЗПІЗНАВАННЯ ГРАМАТИЧНИХ ФОРМ, УТВОРЕНИХ ЗА ДОПОМОГОЮ ДОПОМІЖНИХ ДІЄСЛІВ *SHOULD I WOULD***

Таблиця 22.

Функції	Ознаки	Приклади	Еквіваленти в українській мові
1. Допоміжне дієслово	Входить до складу присудка підрядного речення, а присудок головного речення має одну з форм минулого часу.		Присудок перекладається майбутнім часом.
a) Future-in-the-Past		The surgeon said that he <i>would consult</i> this patient in two days. – Хірург сказав, що він проконсультує хворого через 2 дні.	
b) Subjunctive Mood	1) Входить до складу присудка головного речення, де підрядне є умовним.  2) Входить до складу присудка підрядного речення.	If there were no calcium salts producing a barrier, the caries <i>would go</i> straight to the pulp. – Якби не було кальцієвих солей, що створюють бар'єр, карієс перейшов би на пульпу. <i>Should</i> this condition <i>arise</i> the drug <i>should be</i> administered intravenously. – Якби стан погіршився, то ліки треба було б вводити внутрішньовенно.	Присудок перекладається умовним способом, тобто дієсловом у минулому часі з часткою “б”, “би”.
2. Модальне дієслово	Входить до складу присудка простого чи головного речення:	It is necessary that the kidney <i>should be resected</i> . – Необхідно, щоб нирка була видалена. The doctor suggested that the patient <i>should be operated on</i> . – Лікар наполягав,	Виражає необхідність, пораду, докір тощо. Перекладається: варто, слід, слід було б (потрібно було б).

## ПІДРЯДНІ ДОДАТКОВІ ТА ОЗНАЧАЛЬНІ РЕЧЕННЯ (OBJECT CLAUSES)

В англійській мові підрядні додаткові речення (Object Clauses) виконують функцію додатка до дієслова або прикметника в головному реченні. Вони приєднуються до головного речення сполучниками *that, if, whether*, сполучними займенниками та прислівниками *who, whose, what, which, where, when, how, why*, а також безсполучниковим способом. Додаткові підрядні речення перекладаються зі сполучником *що* або без нього: *I know my friend is not ill. – Я знаю, (що) мій друг не хворий.*

Підрядні означальні речення (Attributive Clauses) виконують роль означення іменника або займенника головного речення і з'єднуються з ним за допомогою сполучних займенників *who, whose, which, that*, сполучних прислівників *where, when*, а також безсполучниковим способом. Перекладаючи підрядні означальні речення, вводять сполучник *який*, наприклад: *My friend you know well is not ill. – Мій друг, якого ви добре знаєте, не хворий.*

### Виділення членів речення за допомогою підсилювальної конструкції IT IS (was, will be) ... THAT (who, which)

Іноді в англійських реченнях вживаються конструкція типу *It is (was) ... that (who)*. Українською мовою такі конструкції перекладають словом *саме* і використовують для виділення певного члена речення.

Якщо слід виділити обставину часу, то, як правило, вживають таку конструкцію: *it was not until... that*, а її українські відповідник – слова *лише, лише після; лише тоді, коли*.

*It was not until 1538 that A. Vesalius published this work. – Лише в 1538 році А. Везалій опублікував свою роботу.*

## УМОВНИЙ СПОСІБ

Умовний спосіб виражає дію не як реальну, а як таку, що могла б відбутися за певних умов, а також необхідну, бажану або нереальну, нездійсненну. Форми переважної більшості дієслів умовного способу збігаються з формами дійсного способу. Виняток становлять дієслова 3-ої особи однини, котрі не мають закінчення -s: *It was necessary (that) the doctor take the patient's blood pressure immediately. – Було необхідно, щоб лікар негайно виміряв хворому кров'яний тиск.*

Для утворення умовного способу також вживаються дієслова *should, would* та *might*: *The patient must follow the administered course of treatment lest an unfavourable reaction should develop. – Хворий має дотримуватися курсу призначеного лікування, щоб не виникли небажані наслідки.*

### Вживання умовного способу.

Умовний спосіб вживається:

а) у підрядних умовних реченнях (як із сполучником *if*, так і без нього. В останньому випадку дієслово стоїть перед підметом): *If I were at home I should call in a doctor immediately. – Якби я був удома, я викликав би лікаря негайно. Were I at home, I should call in a doctor immediately. – Якби я був удома, я викликав би лікаря негайно.*

б) у підрядних реченнях, які вводяться зворотом із займенником *it*: