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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.

CONTENTS

Передмова

Lesson 1

Fillings

Word-Building: -ate, -ize (-ise), -fy

Grammar: Perfect Tenses, Passive Voice (Revision); Object Clauses

Text: Fillings

Lesson 2

Dental crowns

Word-Building: a-, an-, anti-, ab-

Grammar: Simple Tenses, Passive Voice (Revision)

Text: Dental crowns

Lesson 3

Endodontics

Word-Building: -y

Grammar: Continuous Tenses (Passive Voice, Interrogative Form)

Text: Endodontics

Lesson 4

Tooth extraction

Word-Building: -less, -ous

Grammar: Perfect Tenses (Passive Voice, Affirmative Form)

Text: Tooth extraction

Lesson 5

Abnormalities of tooth development

Rules of Reading: ck, ch, sh

Word-Building: dia-, dis-, extra-, hyper-, hypo-, il- (im-, in-, ir-)

Grammar: Forms of Participle

Text: Abnormalities of tooth development

Lesson 6

Types of dental diseases

Rules of Reading: kn, tch, th

Word-Building: -(i)ty, -ness

Grammar: Absolute Participle Construction

Text: Types of dental diseases

Lesson 7

Caries

Rules of Reading: b, c, e

Word-Building: -ar, -ic, -ive

Grammar: Construction "It is ... that"

Text: Caries

Text: Treatment of caries

Lesson 8

Pulp diseases

Word-Building: inter-, intra-, macro-

Grammar: Simple Tenses (Revision)

Text: Pulp diseases

Text: Pulpitis

Lesson 9

Periodontal diseases

Word-Building: mal-, micro-, mis-

Grammar: Functions of "One"

Text: Periodontal diseases

Lesson 10	Oral candidiasis Word-Building: over-, para-, per-, poly- Grammar: Infinitive and its Forms; Subjective Infinitive Construction Text: Oral candidiasis Text: Oral Thrush in Children
Lesson 11	Oral cancer Word-Building: post-, pre- Grammar: Objective Infinitive Construction Text: Oral cancer
Lesson 12	Halitosis Word-Building: Compound Words Grammar: Verbal Noun Text: Halitosis
Lesson 13	Xerostomia Word-Building: Compound Words Grammar: Sequence of Tenses Text: Xerostomia
Lesson 14	Dental anamnesis Word-Building: Compound Words Grammar: Adverbs Text: Dental case history
Lesson 15	Dental radiography Word-Building: -ly Grammar: Perfect Tenses (Passive Voice, Interrogative Form) Text: Dental radiography
Lesson 16	Additional texts: Text A: Glossitis Text B: Dysgeusia Text C: Stomatitis Text D: Bruxism Text E: Teeth sensitivity Text F: Dental abscesses Text G: Sedative and hypnotic drugs Text H: Dental restoration Text I: Allergy to amalgam Text J: Dentures
Appendix 1	Irregular Verbs
Appendix 2	Suffixes and Term-Elements
Appendix 3	Term-Elements of Greek and Latin Origin
Короткий довідник з правил словотворення	
Practical Grammar Guide Vocabulary	

VOCABULARY

misuse ['mɪs'ju:s] - зловживати; неправильне використання

investment [ɪn'vestmənt] - вклад

debris ['delbrɪ] - зубний наліт; залишки їжі
ionomer - іономер

polish *n; v* ['pɒlɪʃ] - полірування, шліфування; полірувати

available [ə'veɪləb(ə)l] - придатний, корисний

mercury - ртуть

copper ['kɒpə] - мідь, мідно-червоний колір

advantage [əd'ventɪdʒ] - перевага, користь

disadvantage [dɪsəd'ventɪdʒ] - недолік, несприятливе становище

durability [dʒu(r)ə'bɪlətɪ] - стійкість; витривалість; зносостійкість

destruction [dɪs'trʌkʃən] - порушення; загибель

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

Suffixes of Verbs:

-ate

prognosticate *прогнозувати, передбачати ймовірне завершення хвороби*

-ize (-ise)

special *спеціальний* – to specialize *спеціалізувати*

neutral *нейтральний* – to neutralize *нейтралізувати*

-fy

classify *класифікувати*

Ex. 2. Read and translate the following words:

A. Translate; penetrate; integrate; narrate; participate; regulate; eliminate; articulate; separate; dilate; isolate; evacuate.

B. Characterize; memorize; organize; mobilize; synthesize; comprise.

C. Identify; modify; amplify.

GRAMMAR: PERFECT TENSES (Passive Voice) (REVISION)

Ex. 3. Translate the sentences containing Perfect Tenses (Passive Voice):

1. If the pulp is exposed root canal therapy is usually necessary. 2. Fillings are inserted in the teeth to replace the cavity 3. The vitality of the pulp is preserved. 4. Temporary fillings are inserted as temporary measure only. 5. For premolars and molars, amalgam or gold is used. 6. Careful preparation is required to ensure the all caries is removed. 7. Before explaining how this is done, it is necessary to consider the types of filling material.

Ex. 4. Turn the following sentences into interrogative:

1. Undermined enamel is chipped away with an enamel chisel. 2. The cavity is enlarged to remove stagnation area. 3. This is done with handpieces and burs. 4. Permanent fillings are meant to put permanently.

Ex. 5. Find in the text “Fillings” sentences containing Perfect Tenses, Passive Voice. Read them, determine the tenses, and translate into your native language.

Ex. 6. Read the following grammar material:

OBJECT CLAUSES

We know (that) caries breaks down the teeth because acid affects on them.	Ми знаємо, що карієс руйнує зуби тому, що їх вражає кислота.
He cannot understand why the root canal therapy is such a painful procedure.	Він не може зрозуміти, чому лікування кореневого каналу така болісна процедура.
Will you show me where the pulp is located?	Ви мені покажете, де розташована пульпа?

Ex. 7. Read and translate the following sentences into your native language:

1. The patients also were dissatisfied with the quality of service. 2. What instruments can be found on the instrument table? 3. Dentist was allowed to fill the cavity. 4. The course of treatment was accepted by the patient. 5. On physical examination the tooth was considered to be far gone. 6. The presence of plaque on the tooth surface is known to be formed due to bacteria 7. Severe toothache is estimated to be caused by the action of bacteria and acid products.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 8. Read VOCABULARY and memorize new words.

Ex. 9. Insert the missing letters:

D_ntist; d_ring; de_ay; rem_val; pro_ess; dete_mine; rem_ve_; prep_re; space; fil_ing; cle_ning; cav_ty; bacte_ia; debri_.

Ex. 10. Read the following words:

First; dentist; numb; around; tooth; local anesthetic; drill; air abrasion; instrument; laser; remove; decayed; area.

Ex. 11. Read and translate the following text:

FILLINGS

To treat a cavity your dentist will remove the decayed portion of the tooth and then "fill" the area on the tooth where the decayed material once lived.

Fillings are also used to repair cracked or broken teeth and teeth that have been worn down from misuse (such as from nail-biting or tooth grinding).



First, the dentist will numb the area around the tooth to be worked on with a local anesthetic. Next, a drill, air abrasion instrument or laser will be used to remove the decayed area. The choice of instrument depends on the individual dentist's comfort level, training, and investment in the particular piece of equipment as well as location and extent of the decay.

Next, your dentist will probe or test the area during the decay removal process to determine if all the decay has been removed.

Once the decay has been removed, your dentist will prepare the space for the filling by cleaning the cavity of bacteria and debris. If the decay is near the root, your dentist may first put in a liner made

of glass ionomer, composite resin, or other material to protect the nerve. Generally, after the filling is in, your dentist will finish and polish it.

Today, several dental filling materials are available. Teeth can be filled with gold; porcelain; silver amalgam (which consists of mercury mixed with silver, tin, zinc, and copper); or tooth-colored, plastic and glass materials called composite resin fillings. The location and extent of the decay, cost of filling material, patients' insurance coverage and your dentist's recommendation assist in determining the type of filling that will best address your needs.

Cast gold

Advantages:

1. Durability - lasts at least 10 to 15 years, usually longer; doesn't corrode;
2. Strength - can withstand chewing forces;
3. Aesthetics - some patients find gold more pleasing to the eye than silver, amalgam fillings;

Disadvantages:

1. Expense - more than other materials; up to 10 times higher than cost of amalgam fillings;
2. Additional office visits - requires at least two office visits to place;
3. Galvanic shock - a gold filling placed immediately next to a silver, amalgam filling can cause a sharp pain (galvanic shock) to occur. The interaction between the metals and saliva causes an electric current to occur - it's a rare occurrence;
4. Aesthetics - most patients don't find any "colored" fillings to be an "eye-pleasing" advantage;

Silver-fillings (Amalgams)

Advantages:

1. Durability - lasts at least 10 to 15 years and usually outlasts composite fillings;
2. Strength - can withstand chewing forces;
3. Expense - is less expensive than composite fillings;

Disadvantages:

1. Poor aesthetics - fillings don't match the color of your natural teeth;
2. Destruction of more tooth structure - healthy parts of the tooth must often be removed to make a space large enough to hold the amalgam filling;
3. Discoloration - amalgam fillings can create a grayish hue to the surrounding tooth structure;
4. Cracks and fractures - although all teeth expand and contract in the presence of hot and cold liquids, which ultimately can cause the tooth to crack or fracture, amalgam material - in comparison with other filling materials-may experience a wider degree of expansion and contraction and lead to a higher incidence of cracks and fractures;
5. Allergic reactions - a small percentage of people, approximately 1%, are allergic to the mercury present in amalgam restorations;

Tooth-colored composite fillings

Advantages:

1. Aesthetics - the shade/color of the composites can be closely matched to the color of existing teeth; is particularly well suited for use in front teeth or visible parts of teeth;
2. Bonding to tooth structure - composite fillings actually chemically bond to tooth structure, providing further support to the tooth;
3. Versatility in uses - in addition to use as a filling material for decay, composite fillings can also be used to repair chipped, broken or worn teeth;

4. Tooth-sparing preparation - sometimes less tooth structure needs to be removed compared with amalgams when removing decay and preparing for the filling;

Disadvantages:

1. Lack of durability - composite fillings wear out sooner than amalgams (lasting at least 5 years compared with at least 10 to 15 for amalgams); in addition, they may not last as long as amalgams under the pressure of chewing and particularly if used as the filling material for large cavities;

2. Increased time - because of the process to apply the composite material, these fillings can take up to 20 minutes longer than amalgams to place;

3. Additional visits - if composites are used for inlays or onlays, more than one office visit may be required;

4. Chipping - depending on location, composite materials can chip off the tooth;

5. Expense - composite fillings can cost up to twice the cost of amalgams;

Ceramics, which are made most often of porcelain, are more resistant to staining than composite resin material but are also more abrasive. This material generally lasts more than 15 years and can cost as much as gold.

Glass ionomer is made of acrylic and a specific type of glass material. This material is most commonly used for fillings below the gum line and for fillings in young children (drilling is still required). Glass ionomers release fluoride, which can help protect the tooth from further decay. However, this material is weaker than composite resin and is more susceptible to wear and prone to fracture. Glass ionomer generally lasts 5 years or less with costs comparable to composite resin.

Ex. 12. Translate into English:

Видаляти, пломби, наліт, бактерія, стійкий до, захищати, переваги і недоліки, відновити, місце розташування, карієс; гниття зуба, визначати, чищення, подрібнення; здрібнювання, іономер, тривалість, вартість; ціна, змінність, жування, неправильно використовувати; зловживати; невідповідне призначення.

Ex. 13. Answer the following questions:

1. Why are fillings inserted in teeth? 2. What are the most important steps of dentist to fill in the cavity? 3. What types of fillings do you know? 4. What are disadvantages of silver fillings? 5. What are advantages of tooth-colored composite fillings? 6. What is durability of silver fillings? 7. What are advantages of cast gold fillings?

Ex. 14. Match the following words logically:

- a) Vital, destroy, front, soft, entrance, pack in, heat
- b) Back, cold, come out, hard, dead, preserve, exit

Ex. 15. Read the following text and comment upon it. Try to retell the text.

INDERECT FILLINGS

Indirect fillings are similar to composite or tooth-colored fillings except that they are made in a dental laboratory and require two visits before being placed. Indirect fillings are considered when not enough tooth structure remains to support a filling but the tooth is not so severely damaged that it needs a crown.

During the first visit, decay or an old filling is removed. An impression is taken to record the shape of the tooth being repaired and the teeth around it. The impression is sent to a dental laboratory

that will make the indirect filling. A temporary filling is placed to protect the tooth while your restoration is being made. During the second visit, the temporary filling is removed, and the dentist will check the fit of the indirect restoration. Provided the fit is acceptable, it will be permanently cemented into place.

There are two types of indirect fillings - inlays and onlays.

- **Inlays** are similar to fillings but the entire work lies within the cusps (bumps) on the chewing surface of the tooth.
- **Onlays** are more extensive than inlays, covering one or more cusps. Onlays are sometimes called partial crowns.

Ex. 16. Translate into Ukrainian

Ex. 17. Make up questions based on the text.

Ex. 18. Speak on the fillings.

Ex. 19. Write a short summary based on the text.

Ex.20. Translate the following sentences into English:

1. Пломбування зубів є найпоширенішою послугою, що надається в стоматологічних клініках на сьогоднішній день.
2. Пломбуванням є відновлення анатомічної форми та фізіологічних функцій зубів за допомогою пломби.
3. Щоб уникнути больових відчуттів під час пломбування використовується відповідна анестезія.
4. Пломбувальні матеріали підбираються індивідуально для конкретного пацієнта.
5. Постійна пломба потребує спеціального препарування ротової порожнини пацієнта, яке залежить від типу матеріалу.
6. Існує декілька класів матеріалів для постійного пломбування зубів: амальгама, цементи, композити.
7. Зубний біль після пломбування буває обумовлений такими патологічними процесами як: карієс, пульпіт, періодонтит.

Overview

To treat a cavity your dentist will remove the decayed portion of the tooth and then "fill" the area on the tooth where the decayed material once lived. Fillings are also used to repair cracked or broken teeth. Teeth can be filled with gold; porcelain; silver amalgam (which consists of mercury mixed with silver, tin, zinc, and copper); or tooth-colored, plastic and glass materials called composite resin fillings. There are some different types of fillings, such as cast gold, silver, tooth-colored composite fillings.

Lesson 2 Dental Crowns

VOCABULARY

implant ['implɑ:nt] n, імплантат
implant [ɪm'plɑ:nt] v, імплантувати,
support [sə'pɔ:t] підтримувати
porcelain ['pɔ:s(ə)lɪn] порцеляна
fuse [fju:z] плавити, з'єднувати
resin ['rezɪn] смола, каучук, пластмаса
ceramic [sə'remɪk] керамічний
alloy ['ælɔɪ] сплав
withstand [wɪð'stænd] витримувати

recede [rɪ'si:d] знижуватися
prone (to) [prəʊn] схильний до чого-небудь
onlay ['ɒnleɪ] накладка
restore [rɪ'stɔ:] відновлювати
break [breɪk] руйнувати, ламати
bridge [brɪdʒ] мостоподібний зубний протез
severely [sɪ'verɪli] сильно, складно, важко
force [fɔ:s] сила, зусилля
wear down ['weə `daʊn] зношувати(ся)

adjacent [ə'dʒeɪs(ə)nt] суміжний, прилеглий
nickel ['nɪkl] нікель

crack [kræk] тріскати(ся), розколювати(ся)
palladium [pə'leɪdɪəm] палладій

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

Prefixes and term-elements:

a-, an- (no, without)

anti- (against)

ab- (away from)

Ex. 2. Read and translate the following words:

A. Apnea; anoxia; anabiotic; anabolic; anacidity.

B. Antigen, antibiotic, antihistamine; antibody; antitetanic; anti-inflammatory; antiviral; antidiuretic; antithyroid.

C. Abnormal; abductor; absorption.

GRAMMAR: SIMPLE TENSES (Passive Voice) (REVISION)

Ex. 3. Enter the Past Participle of the following verbs:

Locate; pump; consist; separate; call; enter; weight; know; flow; feel; bring; take; give.

Ex. 4. Find and translate sentences with predicates in Simple Tenses, Passive Voice:

1. A crown is used to cap or completely cover a tooth. 2. Traditionally, the teeth to be crowned are prepared by a dentist and records are given to a dental technician to fabricate the crown or bridge. 3. When decay is first detected in a tooth, the usual action taken by the dentist is to provide the tooth with an intracoronal restoration. 4. Preparation of a tooth for a crown involves the irreversible removal of a significant amount of tooth structure. 5. Inlays, onlays and all varieties of crowns can also be fabricated out of ceramic materials, such as in CAD/CAM technology (computer-assisted design/computer-assisted manufacture).

Ex. 5. Make up the following sentences interrogative:

1. Traditionally more than one visit is required to complete crown and bridge work. 2. When preparing a tooth for a crown, the enamel is totally removed. 3. If the tooth is restored with a full gold crown, the restoration need only be 5 mm in thickness. 4. If porcelain is applied to the gold crown, an additional minimum of 1 mm of tooth structure needs to be removed. 5. Crowns are fabricated in a laboratory or with CAD/CAM technology. 6. Crowns are constructed to reproduce the original functional dimensions of the tooth they are restoring.

READING AND DEVELOPING SPEAKING SKILLS

Ex.6. Read VOCABULARY and memorize new words.

Ex. 7. Compose your own sentences using VOCABULARY.

Ex. 8. Insert the missing letters:

Cro_n, s_ape, app_arance, resto_e, por_elain, allo_, cer_mic, brid_e, ad_acent, im_lant, g_m,
perman_nt, co_er, sev_rely, res_n, de_ay.

Ex. 9. Read and translate the following words and word-combinations:

Broken tooth, front teeth, placement, suitable, natural color, less expensive, gum line, adjacent teeth, out-of-sight molars, main drawback, gold alloy, porcelain-fused-to-metal, dental bridge, large filling, weak tooth, broken tooth.

Ex. 10. Match the following English word combinations with the Ukrainian ones:

- | | |
|--|---------------------------------------|
| 1. to improve appearance | a) підтримати зуб |
| 2. to support a tooth | b) встановлення постійної коронки |
| 3. compared with | c) утримувати частини тріснутого зуба |
| 4. placement of the permanent crown | d) покращити зовнішній вигляд |
| 6. the entire tooth | e) увесь зуб |
| 7. broken tooth | f) зламаний зуб |
| 8. to hold together parts of a cracked tooth | g) у порівнянні з |

Ex.11. Read and translate the following groups of words:

to cover: to cover the tooth, to cover the surface, to be covered with tissue, covering, protective covering, coverage, coverage of the underlying tooth.

to restore: to restore shape and size, to restore appearance, to restore broken tooth, restoration, permanent restoration, temporary restoration, restorative, restorative material, restorative measures.

to place: to place a dental crown, to place a bridge, to place onlays, placement, placement of the permanent crown. The placement of the permanent crown requires two visits to the dentist.

tooth: cracked tooth, weak tooth, broken tooth, adjacent tooth, front or back teeth, the entire tooth, decayed tooth, filled tooth, vital tooth, loose tooth, tooth-shaped, discolored teeth, misshapened teeth.

Ex.12. Read and translate the text:

Dental crowns

A dental crown is a tooth-shaped "cap" that is placed over a tooth – covering the tooth to restore its shape and size, strength, and/or to improve its appearance.

A dental crown may be needed in the following situations:

- To protect a weak tooth (for instance, from decay) from breaking or to hold together parts of a cracked tooth
- To restore an already broken tooth or a tooth that has been severely worn down
- To cover and support a tooth with a large filling when there isn't a lot of tooth left
- To hold a dental bridge in place
- To cover misshapened or severely discolored teeth
- To cover a dental implant

Permanent crowns can be made from all metal, porcelain-fused-to-metal, all resin, or all ceramic.

Metals used in crowns include gold alloy, other alloys (for example, palladium) or a base-metal alloy (for example, nickel or chromium). Metal crowns withstand biting and chewing forces well and probably last the longest in terms of wear down. The metallic color is the main drawback. Metal crowns are a good choice for out-of-sight molars.

Porcelain-fused-to-metal dental crowns can be color matched to your adjacent teeth (unlike the metallic crowns). However, more wearing to the opposing teeth occurs with this crown type compared with metal or resin crowns. The crown's porcelain portion can also chip or break off. However, sometimes the metal underlying the crown's porcelain can show through as a dark line, especially at the gum line and even more so if your gums recede. These crowns can be a good choice for front or back teeth.

All-resin dental crowns are less expensive than other crown types. However, they wear down over time and are more prone to fractures than porcelain-fused-to-metal crowns.

All-ceramic or all-porcelain dental crowns provide the best natural color match than any other crown type and may be more suitable for people with metal allergies. However, they are not as strong

as porcelain-fused-to-metal crowns and they wear down opposing teeth a little more than metal or resin crowns. All-ceramic crowns are a good choice for front teeth.

Preparing a tooth for a crown usually requires two visits to the dentist -- the first step involves examining and preparing the tooth, the second visit involves placement of the permanent crown.

Onlays and 3/4 crowns are variations on the technique of dental crowns. The difference between these crowns and the crowns discussed previously is their coverage of the underlying tooth. The "traditional" crown covers the entire tooth; onlays and 3/4 crowns cover the underlying tooth to a lesser extent.

Ex.13. Find in the text English equivalents for the following words and word-combinations:

Сплав; розмір; різниця; форма; міцність; металокерамічна коронка; відновлювати; передні зуби; утримувати мостоподібний протез; біля лінії ясен; основний недолік; зуби, що змінили колір; зуби, що втратили форму; дешевший; з часом; зуби-антагоністи; постійна коронка; в меншій мірі, суцільнокерамічні коронки.

Ex.14. Answer the questions:

1. What is the function of dental crown? 2. In what cases may a dental crown be needed? 3. What materials are used for permanent crowns fabrication? 4. What is the main drawback of metal crowns? 5. What advantages have porcelain-fused-to-metal dental crowns? 6. What are disadvantages of porcelain-fused-to-metal dental crowns? 7. What teeth are porcelain-fused-to-metal dental crowns suitable for? 8. What types of dental crowns are more suitable for people with metal allergies? 9. How many visits does tooth preparing for a crown usually requires?

Ex.15. Complete the sentences:

1. A dental crown covers the tooth to _____ its shape and size, strength, and/or to improve its appearance. 2. A dental crown may be needed to hold a dental _____ in place. 3. Porcelain-fused-to-metal dental crowns can be a good _____ for front or back teeth. 4. All-resin dental crowns are more prone to _____ than porcelain-fused-to-metal crowns. 5. Preparing a tooth for a crown usually requires _____ visits to the dentist. 6. Metal crowns are a good choice for _____ molars.

Ex.16. Insert English equivalents of the Ukrainian words in brackets. Translate the abstract:

Your newly crowned (зуб) may be (чутливий) immediately (після) the (процедури) as the (анестезія) begins to wear off. (Якщо) the tooth that has been crowned still has a (нерв) in it, you (можете) experience some heat and cold sensitivity. Your (стоматолог) may recommend that you (чистити) your teeth with (зубною пастою) designed for sensitive teeth. (Біль) or sensitivity that occurs when you bite down (зазвичай) means that the (коронка) is too high on the tooth. If this is the case, (зателефонуйте) your dentist. He or she (зможе) easily fix this (проблему).

Ex.17. Insert the missing prepositions (of, on, from, between, around, at) where necessary. Translate the abstract into your native language:

On average, dental crowns last _____ 5 and 15 years. The life span _____ a crown depends _____ the amount of "wear and tear" the crown is exposed to, how well you follow _____ good oral hygiene practices, and your personal mouth-related habits (you should avoid _____ such habits as grinding or clenching your teeth, chewing ice, biting your fingernails, and using your teeth to open packaging).

While a crowned tooth does not require any special care, remember that simply because a tooth is crowned does not mean the underlying tooth is protected _____ decay or gum disease. Therefore, continue to follow good oral hygiene practices, including brushing your teeth _____ least twice a day and flossing once a day-especially _____ the crown area where the gum meets the tooth.

Ex.18. Insert the missing words given below:

Post-crown refers to a type of dental crown used on _____ teeth that require additional endodontic (root canal) _____. This single structure combines the crown with the post-core.

When the top of a tooth is lost due to _____ there may be very little for the crown to actually hold onto. To gain 'retention' as dentists call it, a post is placed _____ the tooth and acts as a seat for the crown. Post crowns have a shorter _____ than normal crowns as the roots may be brittle (ламкі) and weaker. Usually a post _____ is a better option than having the tooth extracted with a subsequent denture or _____.

(decay, therapy, lifespan, affected, inside, bridge, crown)

Ex.19. Read the text and entitle it. Write out unknown words. Make a plan of this text.

At the first visit in preparation for a crown, your dentist may take a few X-rays to check the roots of the tooth receiving the crown and surrounding bone.

Before the process of making your crown is begun, your dentist will anesthetize (numb) your tooth and the gum tissue around the tooth. Next, the tooth receiving the crown is filed down along the chewing surface and sides to make room for the crown. The amount removed depends on the type of crown used (for instance, all-metal crowns are thinner, requiring less tooth structure removal than all-porcelain or porcelain-fused-to-metal ones). If, on the other hand, a large area of the tooth is missing (due to decay or damage), your dentist will use filling material to "build up" the tooth to support the crown. After reshaping the tooth, your dentist will use impression paste to make an impression of the tooth to receive the crown. Impressions of the teeth above and below the tooth to receive the dental crown will also be made to make sure that the crown will not affect your bite.

The impressions are sent to a dental laboratory where the crown will be manufactured. The crown is usually returned to your dentist's office in 2 to 3 weeks. If your crown is made of porcelain, your dentist will also select the shade that most closely matches the color of the neighboring teeth. During this first office visit your dentist will make a temporary crown to cover and protect the prepared tooth while the crown is being made. Temporary crowns usually are made of acrylic and are held in place using a temporary cement.

At your second visit, your dentist will remove your temporary crown and check the fit and color of the permanent crown. If everything is acceptable, a local anesthetic will be used to numb the tooth and the new crown is permanently cemented in place.

Ex. 20. Ask the questions to have the following answers:

1. Before the process of making your crown is begun, your dentist will anesthetize your tooth and the gum tissue around the tooth. (When?)
2. The amount removed depends on the type of crown used. (What?)
3. The impressions are sent to a dental laboratory. (Where?)
4. During this first office visit your dentist will make a temporary crown to cover and protect the prepared tooth while the crown is being made. (Why?)
5. Your dentist may take a few X-rays to check the roots of the tooth receiving the crown and surrounding bone. (What ...for?)

Ex. 21. Translate into English.

1. Зубна коронка – це вид реставрації зуба для відновлення його форми, розміру, міцності та зовнішнього вигляду. 2. Зубні коронки використовуються для того, щоб відновити зламаний зуб, або зуб, який сильно зносився. 3. Для виготовлення металевих коронок використовуються різні види сплавів. 4. Керамічні коронки підходять для відновлення зовнішнього вигляду передніх зубів. 5. Пластмасові коронки найдешевші з усіх видів зубних коронок. 6. Для того, щоб перевірити корінь зуба, на який ставитиметься коронка, та оточуючу кістку, стоматолог може зробити декілька рентген-знімків. 7. Для отримання відбитка зуба, на який ставиться коронка, використовують відбиткову масу. 8. Основний недолік металевих коронок – це їхній колір. 9. Інколи на металокерамічних коронках видно металевий каркас у вигляді темної лінії, особливо біля лінії ясен.

Overview

A crown is a type of dental restoration which covers the tooth to restore its shape and size, strength, and/or to improve its appearance. Permanent crowns can be made from all metal, porcelain-

fused-to-metal, all resin, or all ceramic. All of them have their advantages and disadvantages. Metal crowns withstand biting and chewing forces well but their main drawback is metallic color. Porcelain-fused-to-metal dental crowns can be color matched to your adjacent teeth but more wearing to the opposing teeth occurs with this crown type. All-resin dental crowns are less but they are more prone to fractures. All-ceramic or all-porcelain dental crowns provide the best natural color match than any other crown type but they are not as strong. Preparing a tooth for a crown usually requires two visits to the dentist -- the first step involves examining and preparing the tooth, the second visit involves placement of the permanent crown.

Lesson 3 Endodontics

VOCABULARY

pulp chamber ['f'eɪmbə] пульпарна камера

root canal [kə'næl] кореневий канал

pulpitis [pʌl'pʌɪtɪs] пульпіт

complication [ˈkɒmplɪˈkeɪʃ(ə)n] ускладнення

pus [pʌs] гній

accumulate [ə'kju:mjəleɪt] накопичувати

tenderness ['tendənəs] чутливість

blood supply [sə'plʌɪ] кровопостачання

nutrients ['nju:trɪənts] поживні речовини

vulnerable ['vʌln(ə)rəbl] вразливий

injury ['ɪndʒ(ə)rɪ] травма

swelling ['swelɪŋ] набряк

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

-y

Adjective Formation from Noun:

The ending **-y** can be added to many nouns to form adjectives

Dirt +y = dirty

Smell +y = smelly

*That was an awful **smell**.*

*It was very **smelly**.*

Examples: rain-rainy; grain-grainy; water-watery; photograph-photography.

GRAMMAR:

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

CONTINUOUS TENSES (Passive Voice, Interrogative Form) to be + Participle I (V₄)

TENSE	QUESTION WORD	AUXILIARY VERB	SUBJECT	VERB
Present Continuous Tense	What Where When	am is are	I he, she, it we, you, they	being + V₃
Past Continuous Tense	How Why How many	was were	he, she, it we, you, they	being + V₃
Future Continuous Tense	How much Whom	-	-	-

MODEL:

Where are the preventive measures being conducted?

Why was the work being done?

Ex. 3. Read and translate the following questions:

1. Why are all efforts being directed towards the early diagnosis of pulpitis? 2. Where was the solution being injected? 3. Is the child being examined by the surgeon?

Ex. 4. Turn the following sentences into interrogative:

1. The scientific works are being translated into foreign language. 2. Serious investigations were being done by various scientists to establish the cause of pulp disease. 3. At present the root canal is being filled. 4. The permanent filling is being inserted into the decayed tooth. 5. The injured tooth is being replaced in this patient. 6. The functions of the injured teeth are being lost now.

READING AND DEVELOPING SPEAKING SKILLS

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

Ex.6. Insert the missing letters and translate the following words into your native language: Bl __d; sup_ly; to_th; n_trients; nerv_; ti_sue; vuln_rable; dama_e; den_al; de_ay; ac_idental; in_ury; frac_ure; tr_uma; procedu_es.

Ex. 7. Read the following words:

Root canal; treatment; local anesthesia; sheet of rubber; rubber dam; mouth; tooth; to isolate; dry; dentist; tooth decay; natural crown; pulp chamber; pain; dentist; x rays; entire; tissue; bacteria; debris; slightly; filling; material; gutta percha; permanently; completely; infection; temporary; seal; to drain; prescribe; antibiotic; treatment; proper; alignment; bridge; removable partial denture; implant; accomplish; goals.

Ex. 8. Translate the following words and word-combinations into English:

Пульпіт; кореневий канал; пульпарна камера; рентген; ускладнення; гній; накопичувати; чутливий; вразливий; стоматолог; хвороба; карієс; видаляти; гутта-перча; поживні речовини; набряк; зуби; щелепа; м'які тканини; травма; процедура; пломбування каналів; анестезія; міст; протез; ціль.

Ex. 9. Read the following text:

Root canal treatment

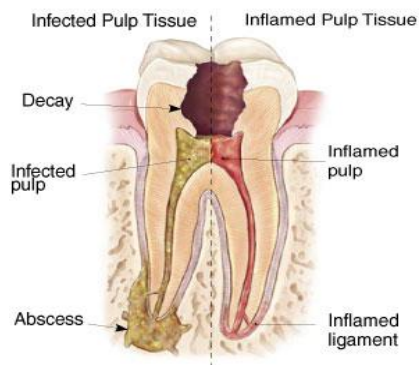
Root canal treatment, also known as endodontic treatment, is a dental procedure in which the diseased or damaged pulp (central core) of a tooth is removed and the inside areas (the pulp chamber and root canals) are filled and sealed.

An inflamed or infected pulp is called pulpitis. It is the most common cause of a toothache. To relieve the pain and prevent further complications, the tooth may be extracted (surgically removed) or saved by root canal treatment.

Inside the tooth, the pulp of a tooth is comprised of soft tissue that contains the blood supply, by which the tooth receives its nutrients; and the nerve, by which the tooth senses hot and cold. This tissue is vulnerable to damage from deep dental decay, accidental injury, tooth fracture, or trauma from repeated dental procedures such as multiple fillings or restorations over time. If a tooth becomes

diseased or injured, bacteria may build up inside the pulp, spreading infection from the natural crown of the tooth to the root tips in the jawbone.

Pus accumulating at the ends of the roots can form a painful abscess that can damage the bone supporting the teeth. Such an infection may produce pain that is severe, constant. It can also result in prolonged sensitivity to heat or cold, swelling, and tenderness in the surrounding gums, facial swelling, or discoloration of the tooth. In some cases, however, the pulp may die so gradually that there is little noticeable pain.



Root canal treatment is performed under local anesthesia. A thin sheet of rubber, called a rubber dam, is placed in the mouth and around the base of the tooth to isolate the tooth and help to keep the operative field dry. The dentist removes any tooth decay and makes an opening through the natural crown of the tooth into the pulp chamber. Creating this access also relieves the pressure inside the tooth and can dramatically ease pain. The dentist determines the length of the root canals, usually with a series of x rays. Small wire-like files are then used to clean the entire canal space of diseased pulp tissue and bacteria.

The debris is flushed out with large amounts of water (irrigation). The canals are also slightly enlarged and shaped to receive an inert (non-reactive) filling material called gutta percha. However, the tooth is not filled and permanently sealed until it is completely free of active infection. The dentist may place a temporary seal, or leave the tooth open to drain, and prescribe an antibiotic to counter any spread of infection from the tooth. This is why root canal treatment may require several visits to the dentist.

Once the canals are completely clean, they are filled with gutta percha and a sealer cement to prevent bacteria from entering the tooth in the future.

Signs that a root canal treatment is necessary include severe pain while chewing, prolonged sensitivity to heat or cold, or a darkening of the tooth. Swelling and tenderness of the gums or pimples appearing on the gums are also common symptoms. However, it is also possible that no symptoms will be noticed. The dentist will take an x ray of the tooth to determine if there is any sign of infection in the surrounding bone.

Once a root canal treatment is performed, the recipient must have a crown placed over the tooth to protect it.

During the time when antibiotics are being used, care should be taken to avoid using the tooth to chew food. The tooth has been structurally weakened and may break, or there is a possibility of the interior of the tooth becoming reinfected.

If the tooth feels sensitive following the procedure, a standard over-the-counter pain medication such as ibuprofen or naproxen may be taken. This sensitivity will fade after a few days. In most cases the patient can resume regular activity the following day.

There is a possibility that a root canal treatment will not be successful the first time. If infection and inflammation recur and an x ray indicates a repeat treatment is feasible, the old filling material is removed and the canals are thoroughly cleaned out. The dentist will try to identify and correct problems with the first root canal treatment before filling and sealing the tooth a second time.

In cases where an x ray indicates that another root canal treatment cannot correct the problem, endodontic surgery may be performed. In a procedure called an apicectomy, or root resectioning, the root end of the tooth is accessed in the bone, and a small amount is shaved away. The area is cleaned of diseased tissue and a filling is placed to reseal the canal.

With successful root canal treatment, the tooth will no longer cause pain. However, because it does not contain an internal nerve, it no longer has sensitivity to hot, cold, or sweets. Because these are signs of dental decay, the root canal recipient must receive regular dental check-ups with periodic x rays to avoid further disease in the tooth. The restored tooth may last a lifetime. However, with routine wear, the filling or crown may eventually need to be replaced.

In some cases, despite proper root canal treatment and endodontic surgery, the tooth dies and must be extracted. This is relatively uncommon.

The only alternative to performing a root canal procedure is to extract the diseased tooth. After restoration or extraction, the two main goals are to allow normal chewing and to maintain proper alignment and spacing between teeth. A fixed bridge, a removable partial denture or an implant will accomplish both goals.

Ex. 10. Translate the following words and word-combinations into your native language:

Successful; root; canal; treatment; cause; pain; nerve; sensitivity; signs; dental decay; root canal; recipient; regular; dental check-ups; periodic x rays; to avoid further disease; tooth; restored tooth; routine wear; filling; crown; to be replaced; endodontic surgery; the tooth dies; root canal procedure; to extract the diseased tooth; restoration; extraction; removable partial denture.

Ex. 11. Translate the text "Root canal treatment" into your native language.

Ex. 12. Answer the following questions:

1. What does endodontics include? 2. What does pulpitis lead to? 3. When is endodontic treatment required? 4. What is the basic object of endodontic treatment? 5. What is the commonest cause of pulpitis?

Ex. 13. Insert the missing words:

1. There is a possibility that a _ will not be successful the first time. 2. If infection and _ recur and an x ray indicates a repeat _ is feasible, the old _ is removed and the canals are thoroughly cleaned out. 3. The _ will try to identify and correct problems with the first root canal treatment before _ and _ the _ a second time. 4. In cases where an _ indicates that another root canal _ cannot correct the problem, _ may be performed. 5. In a _ called an _, or root resectioning, the root end of the tooth is accessed in the bone, and a _ is shaved away. 6. The area is _ of diseased _ and a filling is placed to reseal the canal.

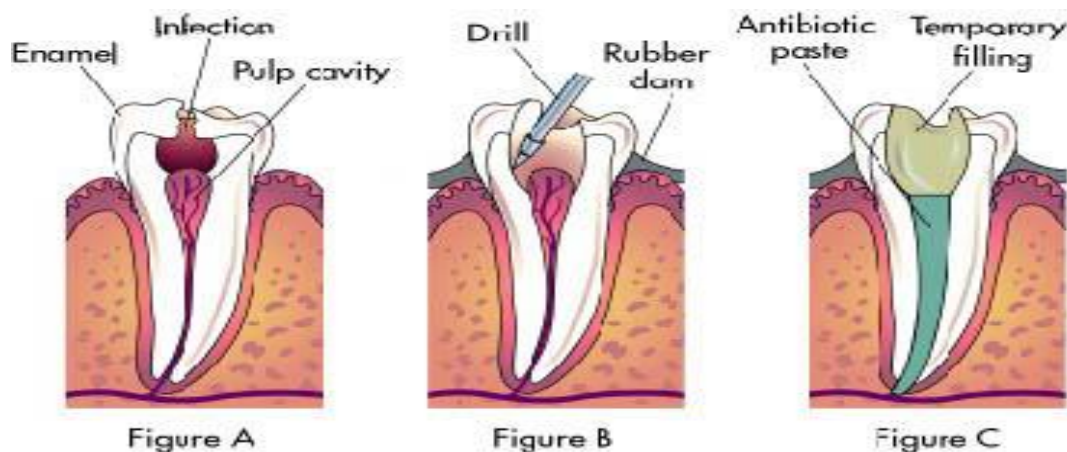
Ex. 14. Speak about Endodontics and possible ways to treat pulpitis.

Ex. 15. Look through the text, make a vocabulary, read it and translate.

In the situation that a tooth is considered so threatened (because of decay, cracking, etc.) that future infection is considered likely or inevitable, a pulpectomy, removal of the pulp tissue, is advisable to prevent such infection. Usually, some inflammation and/or infection is already present within or below the tooth. To cure the infection and save the tooth, the dentist drills into the pulp chamber and removes the infected pulp and then drills the nerve out of the root canal(s) with long needle-shaped drills. After this is done, the dentist fills each of the root canals and the chamber with an inert material and seals up the opening. This procedure is known as root canal therapy. With the removal of nerves and blood supply from the tooth, it is best that the tooth be fitted with a crown which increases the prognosis of the tooth by six times.

The standard filling material is gutta-percha, a natural non-elastic latex from the sap of the percha (*Palaequium gutta*) tree. The standard endodontic technique involves inserting a gutta-percha cone (a "point") into the cleaned-out root canal along with cement and a sealer.

Another technique uses melted or heat-softened gutta-percha which is then injected or pressed into the root canal passage(s). However, gutta-percha shrinks as it cools, so thermal techniques can be unreliable; sometimes a combination of techniques is used. In rare cases, the paste like any other material can be forced past the root tip into the surrounding bone. If this happens, the formaldehyde will immediately be transformed into a harmless substance. The blood normally contains 2 mg formaldehyde per liter and the body regulates this in seconds.



For some patients, root canal therapy is one of the most feared dental procedures, perhaps because of a painful abscess that necessitated the root canal procedure. However, dental professionals assert that modern root canal treatment is relatively painless because the pain can be controlled with a local anesthetic during the procedure and pain control medication can be used before and/or after treatment assuming that the dentist takes the time to administer one. However, in some cases it may be very difficult to achieve pain control before performing a root canal. For example, if a patient has an abscessed tooth, with a swollen area or "fluid-filled gum blister" next to the tooth, the pus in the abscess may contain acids that inactivate any anesthetic injected around the tooth. In this case, the dentist may drain the abscess by cutting it to let the pus drain out. Releasing the pus releases pressure built up around the tooth; this pressure causes the pain.

Ex. 16. Make up questions based on the text.

Ex. 17. Speak on the root canal therapy.

Ex. 18. Write a short summary based on the text.

Ex. 19. Translate the following sentences into English.

1. Ендодонтія – термін, який вживається для форм лікування кореневого каналу зуба. 2. Видалення зуба – найпростіший спосіб лікування. 3. Пульпіт призводить до втрати життєдіяльності пульпи. 4. Пацієнти вважають, що процедура лікування каналів кореня зуба найнеприємніша через нестерпне відчуття болю. 5. Щоб починати процедуру необхідно встановити ознаки, включаючи біль під час жування, чутливість до гарячого чи холодного. 6.

Набряк чи чутливість ясен також є загальними ознаками. 7. Стоматолог робить рентген, щоб виявити ознаки інфекції у оточуючій кістці.

Overview

Root canal treatment, also known as endodontic treatment, is a dental procedure in which the diseased or damaged pulp of a tooth is removed and the inside areas are filled and sealed. An inflamed or infected pulp is called pulpitis. It is the most common cause of a toothache. To relieve the pain and prevent further complications, the tooth may be extracted or saved by root canal treatment. Root canal treatment is performed under local anesthesia. Once the canals are completely clean, they are filled with gutta percha and a sealer cement to prevent bacteria from entering the tooth in the future. Once a root canal treatment is performed, the patient must have a crown placed over the tooth to protect it.

Lesson 4

Tooth extraction

VOCABULARY

oral surgery ['sɜ:g(ə)rɪ] хірургічна стоматологія **solid** ['sɒlɪd] твердий

to remove [rɪ'mu:v] видаляти

numb [nʌm] онімілий

stitch [stɪʃ] зашивати

gauze pad [gɔ:z] марлевий тампон

wound [wu:nd] рана

bleeding ['bli:dɪŋ] кровоточивий

to reduce [rɪ'dju:s] зменшувати

to widen ['waɪd(ə)n] розширювати

tricky ['trɪkɪ] складний

healing ['hi:lɪŋ] загоєння

pillow ['pɪləʊ] подушка

to avoid [ə'vɔɪd] уникати

to spread [spred] розповсюджуватись

extraction [ɪk'strækʃ(ə)n], видалення

forceps ['fɔ:sɛps] щипці

socket ['sɒkɪt] карман

interfere ['ɪntə'fɪə] втручатися

anesthetics ['ænɪs'tetɪks] анестетики

WORD BUILDING

Ex. 1. Familiarize yourself with the following material:

Suffixes of Adjectives:

-less; -ous

- a suffix forming adjectives that have the general sense “possessing, full of” a given quality (covetous; glorious; nervous; wondrous); **-ous** and its variant **-ious** have often been used to Anglicize Latin adjectives with terminations that cannot be directly adapted into English (atrocious; contigous; garrulous; obvious; stupendous).

- the suffix – **less** is meaning "lacking"

use *корисний* – *useless некорисний*

danger небезпека – *dangerous небезпечний*

Ex. 2. Read and translate the following words:

Restless, painless, fruitless, limbleless, remediless, useless, powerless, homeless, speechless, groundless.

GRAMMAR:

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

CONTINUOUS TENSES

(Passive Voice, Interrogative Form)

to be + Participle I (V₄)

TENSE	QUESTION WORD	AUXILIARY VERB	SUBJECT	VERB
Present Continuous Tense	What Where When	am is are	I he, she, it we, you, they	being + V₃
Past Continuous Tense	How Why How many	was were	he, she, it we, you, they	being + V₃
Future Continuous Tense	How much Whom	-	-	-

MODEL:

Where are the preventive measures being conducted?

Why was the work being done?

Ex. 4. Read and translate the following questions:

1. Why are all efforts being directed towards the early diagnosis of pulpitis? 2. Where was the solution being injected? 3. Is the child being examined by the surgeon? 4. What teeth are being traumatized?

Ex. 5. Turn the following sentences into interrogative:

1. The scientific works are being translated into foreign language. 2. Serious investigations were being done by various scientists to establish functions and anatomical structure of the teeth. 3. At present the ingested food is being chewed by teeth. 4. The food is being broken into smaller and smaller pieces by the mechanical activity of these muscles. 5. Now the pulp lining is being protected. 6. Acid was being affected the enamel. 7. The tooth extraction is being performed in this patient. 8. These drugs are being removed by the liver. 9. The injured tissue is being replaced in this person. 10. The functions of the injured section are being performed by other cells.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 6. Read the VOCABULARY and memorize new words.

Ex. 7. Insert the missing letters and translate the following words into your native language:

Painkiller; prescribed; dentist; oral; surgeon; hour; mouth; gently; warm; salt; water; swelling; blood; relax; surgery; physical.

Ex. 8. Read the following words and translate them:

Tricky; to widen; numb; remove; wound; reduce; interfere; gauze pad; to spread; socket; extraction; stitch; forceps; bleeding; solid; damage; denture; to replace; implant; bridge; permanent; temporary; to prop up.

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

Зуби; ясна; видаляти; запобігати; кровоточивість; запалення; травма; причина; тканини; ускладнення; порожнина; інструментальний; хірургічна стоматологія; діагностика; лікування; процедура; набряк.

Ex. 10. Read the following text:

Tooth Extraction

A tooth that is severely damaged may need to be removed. A surgeon who specializes in surgeries of the mouth (oral and maxillofacial surgeon) or your dentist can remove a tooth. Before removing your tooth, your dentist will give you a local anesthetic to numb the area where the tooth will be removed. A stronger, general anesthetic may be used, especially if several or all of your teeth need to be removed. General anesthetic prevents pain in the whole body and will make you sleep through the procedure. After the tooth is removed, you may need stitches. You can gently bite down on a cotton gauze pad placed over the wound to help stop the bleeding. The removed tooth can be replaced with an implant, a denture, or a bridge. A bridge is a replacement for one or more (but not all) of the teeth and may be permanent or removable.



In most cases, the recovery period lasts only a few days. The following will help speed recovery: take painkillers as prescribed by your dentist or oral surgeon. After 24 hours, rinse your mouth gently with warm salt water several times a day to reduce swelling and relieve pain. Change gauze pads before they become soaked with blood.

Relax after surgery. Physical activity may increase bleeding. Avoid smoking. Eat soft foods, such as gelatin, pudding, or a thin soup. Gradually add solid foods to your diet as healing progresses. Do not lie flat. This may prolong bleeding. Prop up your head with pillows. Avoid rubbing the area with your tongue. Continue to carefully brush your teeth and tongue.

Removing a tooth is necessary when decay or an abscessed tooth is so severe that no other treatment will cure the infection. Removing the tooth can help keep infection from spreading to other areas of your mouth.

Some dental work can cause bacteria in the mouth to enter the bloodstream and cause infections in other parts of the body. People who have a hard time fighting off infections may need to take antibiotics before and after dental surgery. Such people include those who have artificial heart valves and those who were born with heart defects.

A tooth extraction should be done as soon as possible to avoid the spread of infection and more serious problems. In cases in which a root canal treatment might not save the tooth, your dentist may recommend that the tooth be removed and a bridge or implant installed.

Ex. 11. Translate the text "Tooth extraction" into your native language.

Ex. 12. Answer the following questions:

1. What is oral surgery? 2. When is tooth extraction usually performed? 3. Why is it better to replace the tooth by a denture? 4. Is there any alternative treatment than extraction? 5. What is the aim of tooth extraction?

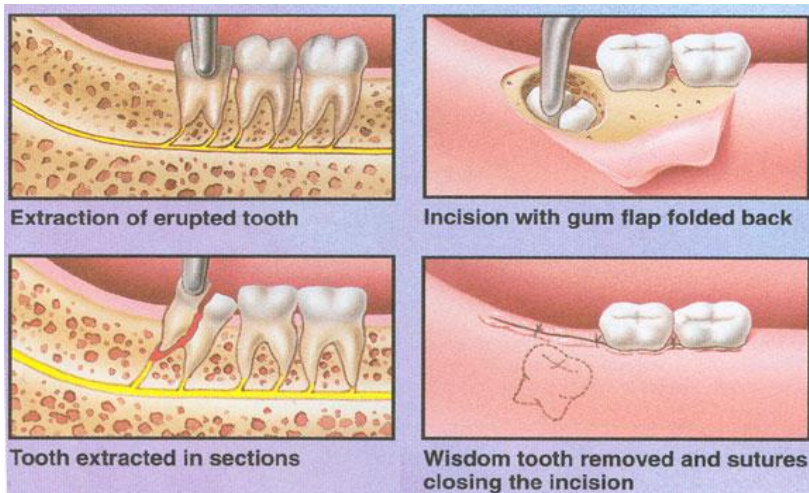
Ex. 13. Insert the missing words:

1. General _ prevents pain in the whole body and will make you sleep through the _. 2. After the _ is removed, you may need _. 3. You can gently bite down on a cotton _ placed over the wound to help stop the _. 4. The removed tooth can be replaced with an _, a _, or a _. 5. A bridge is a replacement for one or more of the teeth and may be _ or removable.

Ex. 14. Speak about tooth extraction.

Ex. 15. Look through the text, make a vocabulary, read it and translate.

Tooth extraction is the process of removing one or more teeth from your mouth by a dentist. The whole process may be done in one session or completed over a number of visits. Depending on the problem which caused the need for extraction, the removed tooth may or may not need replacing. There can be a range of reasons for needing a tooth extracted. The most common reasons include; when your tooth is damaged beyond repair and when you have extensive gum disease that leads to the tooth loosening. In some cases, prematurely losing your milk teeth can lead to crowding as your second teeth come through. This can lead to crooked teeth and one or more may need to be extracted so that the remaining teeth can be straightened. Similarly, you may not have enough room in your mouth for your wisdom teeth to burst through. In cases like this, wisdom teeth can become stuck behind the existing tooth and may need extracting. The vast majority of patients don't have any problems following extraction other than some temporary discomfort.



Before undergoing an extraction your dentist will give you a thorough oral examination and discuss your dental and medical history. At this stage you should tell your dentist about any medical conditions or medications which you have been prescribed. The extraction procedure is performed under local anaesthetic, so while you will be conscious, the affected area will be numbed to reduce discomfort during the

procedure. Once the anaesthetic has taken effect, your dentist uses a tool called an elevator or forceps to widen the socket and loosen the tooth. Then, your dentist carefully holds the root of the tooth before moving it softly from side to side until it is ready to be completely removed. It is normal to feel some pressure in your mouth during the procedure, but the local anaesthetic should keep any discomfort to a minimum.

After the tooth has been successfully removed, there tends to be some bleeding and your dentist may use stitches to fasten the affected area. You will also be told to bite down on some padding so that the bleeding from your socket ceases. In some cases, tooth extraction can be quite tricky to perform, so your dentist may have to cut through your gum to reach the tooth's root. Drilling through the bone to reach the root is also an option. It is important to remove the entire root as any remaining tissue could lead to an infection or even worse, an abscess.

It is normal to remain at your dental clinic until the bleeding subsides which typically takes about ten minutes. It is usually recommended that you go home and relax to aid the healing process especially if you have had a general anaesthetic or a sedative. It is normal to experience some swelling and discomfort in the affected area for a couple of days following extraction. Similarly, you may feel stiffness in the jaw but this should be strictly temporary. Over the counter painkillers like paracetamol should be sufficient to control any pain you are feeling but make sure to avoid aspirin as this can interfere with the healing process.

It is important to avoid hot food and drink before your anaesthetic has worn off, as you may accidentally burn your mouth or bite your cheek while it is numb. Try to avoid chewing on the side of

your mouth where you have had the tooth removed for a few days afterwards and make sure not to drink alcohol or smoke for at least 24 hours following an extraction as this can affect the healing process.

Do not rinse your mouth out until the day after extraction, as this can disturb the blood clot and could restart the bleeding, which can have several serious consequences such as extended healing times or even infection. 24 hours after infection it is usually advised to rinse your mouth out with salt water a few times a day to help with the healing process. If you had stitches following an extraction, you may need to return to your dentist to have them removed. If this is not the case, then a follow-up visit is not usually necessary unless you are experiencing problems.

Although the vast majority of extractions are performed safely, as with all surgical procedures there are some risks involved. Potential complications of the surgery include swelling, extended bleeding, severe pain and a fever. The most common complication of a tooth extraction is a dry socket, where the blood fails to clot and the socket heals very slowly. This can be very painful and may happen immediately after extraction. Fortunately, your dentist will be able to treat this problem easily using antibiotics and dress the wound.

Ex. 16. Make up questions based on the text.

Ex. 17. Speak on the oral surgery.

Ex. 18. Write a short summary based on the text.

Ex. 19. Translate the following sentences into English.

1. Хірургічна стоматологія – один з розділів стоматології. 2. Вона вивчає хвороби та травми зубів, щелеп, тканин, обличчя та шиї. 3. Пацієнту зробили знеболюючий укол. 4. Видалення зуба – це останній етап лікування. 5. Ускладнення після хірургічного втручання можуть бути наступні: набряки, кровоточивість, біль та температура. 6. Щоб уникнути кровоточивості обіпріть голову над подушкою.

Overview

A tooth that is severely damaged may need to be removed. A surgeon who specializes in surgeries of the mouth (oral and maxillofacial surgeon) or your dentist can remove a tooth. Before removing your tooth, your dentist will give you a local anesthetic to numb the area where the tooth will be removed. The most common complication of a tooth extraction is a dry socket, where the blood fails to clot and the socket heals very slowly. This can be very painful and may happen immediately after extraction. Your dentist will be able to treat this problem easily.

Lesson 5

Developmental abnormalities of teeth

VOCABULARY

environment [ɪn'vaɪə(ə)nmənt] оточення, навколишнє середовище

inherit [ɪn'herɪt] успадковувати

exposure [ɪk'spəʊʒə] контакт, безпосередня дія, схильність до зовнішнього впливу

acquire [ə'kwɑɪə] набувати

bonding [bɒndɪŋ] з'єднання, склеювання

bud [bʌd] зародок, зачаток

attribute [ə'trɪbjʊ:t] стосуватися, характеризувати, класифікувати

[ˈætrɪbjʊ:t] характерна риса, особливість

constriction [kən'strɪkʃ(ə)n] звуження

congenital [kən'dʒenɪt(ə)l] вроджений
failure ['feɪljə] недостатність, порушення, нездатність
excess [ɪk'ses] надлишок; надлишковий
phenomenon (pl. phenomena) [fɪ'nɒmɪnən] явище, подія

sharp [ʃɑ:p] гострий, різкий
matrix ['meɪtrɪks] матрикс, міжклітинний матеріал
amount [ə'maʊnt] кількість
translucent [trænz'l(j)u:s(ə)nt] напівпрозорий, що просвічує

RULES OF READING

Letters	Sounds	Examples	Notes
ck	[k]	black	
ch	[C]	chain	
ch	[k]	chemistry	у словах грецького походження
sh	[S]	she	

Ex. 1. Read the following words:

Block; chickenpox; sick; neck; thick; lack; attack; ticket; rich; chest; itching; touch; chemist's shop; headache; stomach; establishment; shoulder; publish; shape.

WORD-BUILDING

Ex. 2. Familiarize yourself with the following material:

Prefixes and term-elements:

dia- (through)

diapedesis *діапедез*, проникнення клітинних елементів крові через інтактні судинні стінки назовні

dis- (dys-) (negative meaning)

to appear *з'являтися* – to disappear *зникати*

extra- (beyond)

extra-articular *позасуглобовий*

Ex. 3. Read and translate the following words:

A. Diameter; dialysis; diaphragm.

B. Dislike; discharging; disable; disagree; dismiss; discard; disintegrate; disruption; displace.

C. Extracellular; extracranial; extraordinary; extrabronchial; extracorporeal.

Ex. 4. Familiarize yourself with the following material:

Prefixes and term-elements:

hyper- (above; excessiveness)

hyperabsorption *гіперабсорбція*

hypo- (under; deficiency)

hypoactive *гіпоактивний*

il- (im-, in-, ir-) (lack of)

attentive *уважний* – inattentive *неуважний*

correct *правильний* – incorrect *неправильний*

Ex. 5. Read and translate the following words:

A. Hyperplasia; hypertrophy; hyperglycemia; hypertension; hyperactive; hypersecretion; hyperthyroidism; hyperplasia; hypervitaminosis.

B. Hypodermic; hypoglycemia; hypothalamus; hyposecretion; hypothyroidism; hypoglycemic; hypodermic.

C. Inorganic; indefinite; illegal; ineffective; inattentive; incorrect; indirect; irregular; impossible; inelasticity.

GRAMMAR:

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

FORMS OF PARTICIPLE

PARTICIPLE	FORM	EXAMPLES
Present Participle (Active)	V + -ing	writing, working
Present Participle (Passive)	being + V₃	being written, being worked
Past Participle (Passive)	V₃	written, worked
Perfect Participle (Active)	having + V₃	having written, having worked
Past Participle (Passive)	having + been + V₃	having been written having been worked

Note: Perfect Participle означає дію, яка відбулась раніше дії, вираженої присудком.

Ex. 7. Read the following sentences with their translation:

The text translated was easy.	Перекладений текст був легким.
The delivered lecture was interesting.	Прочитана лекція була цікавою.
Made according to new method, the experiment showed good results.	Проведений відповідно до нового методу, експеримент продемонстрував добрі результати.
Being asked , he didn't answer the questions.	Коли його запитали, він не відповів на питання.
The nurse working here is my mother.	Медсестра, яка працює тут, моя мати.
Reading this paper, I made notes.	Читаючи цю статтю, я робив нотатки.
Having read the book, I gave it to the library.	Прочитавши книгу, я повернув її до бібліотеки.

Ex. 8. Read and translate the following sentences paying attention to the forms of participles:

1. Having passed the state examinations, young doctors begin to work as interns during a certain period. 2. Having investigated the patient's case history, the physician drew to the conclusion that the patient was sensitive to antibiotics. 3. Being asked some questions about the attack of cardiac pain the patient stated that it was particularly acute on physical exertion. 4. Improved by this surgeon, this surgical instrument is used widely. 5. Having performed on the operation, we went home. 6. Having reported about patient's condition, the therapist proposed to use new drugs. 7. Being very busy, Mike cannot come there. 8. Measles, also known as rubeola, is a common childhood illness. 9. Measles is most contagious before the rash appears, making it difficult to avoid the disease. 10. The affected person becomes contagious 1 day before the symptoms appear. 11. Approximately 2.5 square cm of the skin contain millions of cells and many specialized nerve endings. 12. The skin is a dynamic organ, constantly being replenished.

Ex. 9. Translate the following sentences into your native language:

1. Поверхня верхньої кінцівки, покрита (to cover) опіками (burn), була великою. 2. Виконана (to do) робота необхідна для нашого експерименту. 3. Середостіння (mediastinum), що розділяє легені, розташоване в грудній порожнині. 4. Розділяючи легені, середостіння проходить (to extend) між грудиною і хребтом. 5. Плевра (pleura), що покриває легені і стінки грудної порожнини, утворює плевральну порожнину (pleural cavity). 6. Збори, проведені (to hold) в цій групі вчора, були дуже цікавими. 7. Хворий чоловік, що поступив (to admit) до лікарні 15 червня, був в дуже поганому (poor) стані. 8. Проведений (carry out) дослід дозволив отримати важливі результати. 9. Пролікувавшись протягом тривалого (prolonged) періоду, пацієнт почав почувати себе краще. 10. Видаляючи (to remove) чужорідне тіло (foreign body), хірург прагнув не заподіяти (to cause) пацієнтові біль. 11. Пацієнт, що скаржиться на (to complain of) гострий

(acute) біль у черевній порожнині, був негайно (immediately) направлений (to direct) до хірургічного відділення.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 10. Read VOCABULARY and memorize new words.

Ex. 11. Compose your own sentences using VOCABULARY.

Ex. 12. Insert the missing letters:

Phenom_non, b_d, exposu_e, m_trix, can_ne, prem_lar, ena_el, mol_r, p_rmanent, pren_tal, abnor_ality, envi_onment, cons_riktion, ex_ess.

Ex. 13. Read and translate the following words and word-combinations:

Pathology, human life, environment, toxic chemicals, environmental factors, prenatal, postnatal, inherited, acquired, congenital absence, primary teeth, permanent teeth, excess number, standard number, the additional teeth, extra tooth, the complete bonding, irregular growth, locations, between roots, extra cusp, pulpal floor, mandibular canines, the junction, mostly, thickness of enamel, hardness of the enamel.

Ex.14. Match the following English names of the diseases with the Ukrainian ones:

- | | |
|---|---|
| 1. hypercementosis ['hɪləpəsməntəʊsɪs] | a) гіпокальцифікація дентина |
| 2. dentin dysplasia [dɪntɪnˈdɪzɪə] [-Zə] | b) флюороз (хронічна інтоксикація фтором) |
| 3. dentinogenesis imperfecta [ˈdɛntɪnəˈdʒenɪsɪs] | c) роздвоєння зуба |
| 4. dentin hypocalcification
[ˈhɪləpəsməntəʊsɪs] | d) гіперцементоз |
| 5. enamel hypoplasia [ˈhɪləpəsməntəʊsɪs] [-Zə] | e) недосконалий дентиногенез (розвиток дентину) |
| 6. enamel hypocalcification | f) дисплазія дентина |
| 7. amelogenesis imperfect [ˈamələˈdʒenɪsɪs] | g) зрощення зуба |
| 8. dental fluorosis [ˈdɛntəlˈfluːrəʊsɪs] | h) вузликотве потовщення емалі, адамантома |
| 9. germination [ˈdʒɜːmɪˈneɪʃ(ə)n] | i) гіпокальцифікація емалі |
| 10. fusion [ˈfjuːz(ə)n] | l) гіпоплазія емалі |
| 11. concrecence [kənˈkres(ə)n(t)s] | j) «кіготь орла», додатковий горбик фронтальних зубів |
| 12. dilaceration [dɪləs(ə)ˈreɪʃ(ə)n] | k) гіперодонтія (надлишкова кількість зубів) |
| 13. enamel pearl [pɜːl] | p) кутовий вигин зуба |
| 14. “talon cusp” | m) мікродентизм (малі розміри коронки зуба) |
| 15. taurodontism [ˈtɔːrəˈdaʊntɪzəm] | n) недосконалий амелогенез (розвиток емалі) |
| 16. supernumerary roots | o) макродентизм (великі розміри коронки зуба) |
| 17. microdontia [ˈmɪkrəˈdaʊntɪə] | u) тауродонтизм |
| 18. macrodontia [ˈmɪkrəˈdaʊntɪə] | q) адентія, анодентія (відсутність зубів) |
| 19. anodontia [ˈænəˈdaʊntɪə] | r) зрощення цементу зубів |
| 20. hypodontia [ˈhɪpəˈdaʊntɪə] | s) гіподонтія (часткова відсутність зубів) |
| 21. hyperdontia [ˈhɪpəˈdaʊntɪə] | t) надкомплектні корені |

Ex. 15. Read and translate the following text:

Developmental abnormalities of teeth

Tooth development or odontogenesis is the complex process by which teeth form from embryonic cells, grow, and erupt into the mouth. A developmental disturbance means an abnormality where the pathology starts in the embryonic stage of human life, before the formation of the dentition. The development of teeth is regulated by genes, but the genetic program is very sensitive to disturbances in the environment such as exposure to infection or toxic chemicals, including drugs. So, numerous genetic and environmental factors may cause abnormalities in tooth development.

Disorders of teeth development may be prenatal or postnatal in origin and may be inherited or acquired. All developmental abnormalities of teeth can be classified into:

- Anomalies of number
- Anomalies of size
- Anomalies of shape
- Anomalies of structure
- Anomalies of color

Anomalies of number

Anomalies of number are represented by anodontia, hypodontia, hyperdontia.

Anodontia is a rare genetic disorder characterized by the congenital absence of all primary or permanent teeth. *Hypodontia* is the condition at which the patient has missing teeth as a result of their failure to develop. Hypodontia describes a situation where the patient is missing up to 6 teeth, excluding the 3rd molars. *Hyperdontia* is an oral condition characterized by having an excess number of teeth. The standard number of primary teeth is 20 and the standard number of permanent teeth is 32. A person who develops more than 20 primary teeth or more than 32 permanent teeth has hyperdontia. The additional teeth are referred to as supernumerary teeth.

Anomalies of size

Anomalies of size are represented by microdontia and macrodontia. *Microdontia* is a condition in which the teeth appear smaller than normal teeth. Microdontia can occur on all teeth or just a few teeth. *Macrodontia* is a condition in which the teeth appear larger than normal.

Anomalies of shape

Anomalies of shape include germination, fusion, concrescence, dilacerations, enamel pearl, talon cusp, taurodontism, supernumerary roots.

Tooth *gemination* is a dental phenomenon when two teeth develop from one tooth bud and, as a result, the patient has an extra tooth, in contrast to fusion. *Fusion* is a rare dental case characterized by the complete bonding of two adjacent teeth due to irregular growth. *Concrescence* is a condition of teeth where the cementum overlying the roots of at least two teeth join together. The cause can sometimes be attributed to trauma or crowding of teeth. An enamel pearl is a condition of teeth where enamel is found on locations where enamel is not supposed to be, such as on a root surface. They are found usually in the area between roots of molars. *Enamel pearls* are not common in teeth with a single root. A *talon cusp*, also known as an "eagle's talon", is an extra cusp on an anterior tooth. *Taurodontism* can be defined as a change in tooth shape characterized by an enlarged pulp chamber, apical displacement of the pulpal floor, and no constriction at the level of the cemento-enamel junction. A *supernumerary root* is a condition found in teeth there may be a larger number of roots than expected. The most common teeth affected are mandibular canines, premolars, and molars, especially third molars. *Dilaceration* is the anomaly in the tooth shape and its structure and it refers to a sharp bend in the tooth which can be in the crown portion or in the root, making sharp angles at the junction of the crown and root.

Anomalies of structure

Anomalies of structure can be divided into disturbances in structure of **enamel** (enamel hypoplasia, enamel hypocalcification, amelogenesis imperfecta, dental fluorosis), **dentin** (dentin dysplasia, dentinogenesis imperfecta, dentin hypocalcification) and **cementum** (hypercementosis).

Enamel hypoplasia is the defect of the teeth in which the tooth enamel is hard but thin and deficient in amount. This is caused by defective enamel matrix formation with a deficiency in the cementing substance. *Enamel hypocalcification* is a defect of tooth enamel in which normal amounts of enamel are produced but are hypomineralized. In this defect the enamel is softer than normal. *Amelogenesis imperfecta* presents with abnormal formation of the enamel or external layer of teeth. Enamel is composed mostly of mineral, which is formed and regulated by the proteins in it. Amelogenesis imperfecta is due to the malfunction of the proteins in the enamel. *Dental fluorosis* is a developmental disturbance of dental enamel caused by excessive exposure to high concentrations of fluoride during tooth development. *Dentin dysplasia* is a genetic disorder of teeth characterized by presence of normal enamel but atypical dentin with abnormal pulpal morphology. *Dentinogenesis imperfecta* is a genetic disorder of tooth development. This condition causes teeth to be discolored (most often a blue-gray or yellow-brown color) and translucent. *Hypercementosis* is characterized by the excessive buildup of normal cementum on the roots of one or more teeth.

Anomalies of color

Abnormal tooth color is any color other than the white to yellowish-white of normal teeth. The change in color may affect the entire tooth, or just appear as spots or lines in the tooth enamel. Your genes influence your tooth color. Other things that can affect tooth color include: congenital diseases, environmental factors, infections. Inherited diseases may affect the thickness of enamel or the calcium or protein content of the enamel, which can cause color changes. Metabolic diseases may cause changes in tooth color and shape. Drugs and medications either taken by the mother while pregnant or by the child during the time of tooth development can cause changes in both the color and hardness of the enamel.

Ex. 16. Find in the text the equivalents for the following words and word-combinations:

Формування зубного ряду, рідкісне генетичне захворювання, суміжні зуби, скупченість зубів, поверхня кореня, один корінь, більша кількість коренів, гострі кути, недостатня кількість, зовнішні шари зубів, зміни кольору.

Ex. 17. Answer the following questions:

1. What is tooth development? 2. What are the causes of tooth development? 3. What categories can all developmental abnormalities of teeth be classified into? 4. What disease is characterized by the congenital absence of all teeth? 5. What is the difference between hypodontia and hyperdontia? 6. What is the difference between microdontia and macrodontia? 7. What anomalies of enamel structure can you name? 8. What is the difference between germination and fusion? 9. What factors can affect tooth color?

Ex. 18. Insert the missing prepositions (at, in, of):

Disorders ____ development of teeth may be due to abnormalities ____ the differentiation of the dental lamina and the tooth germs, causing anomalies ____ the number, size, and form ____ teeth (abnormalities of morphodifferentiation) or to abnormalities ____ the formation ____ the dental hard tissues resulting in disturbances ____ tooth structure (abnormalities of histodifferentiation). Abnormalities of histodifferentiation occur ____ a later stage in development than abnormalities of morphodifferentiation; in some disorders both stages ____ differentiation are abnormal.

Ex. 19. Insert the missing words given below:

A disruption during tooth _____ may affect the enamel. Generally such a _____ is referred to as hypoplasia (insufficient and/or irregular quantity of _____). Tetracycline can _____ enamel hypoplasia when taken during _____ or by an infant or young _____ during tooth development. Tetracycline should not be _____ during pregnancy or by children ages 8 and under. In addition, Vitamin D _____ during tooth development and calcification results in enamel and _____ hypoplasia. The enamel is poorly calcified and may fail to _____ at all in some areas.

Disruption, development, cause, enamel, used, pregnancy, child, deficiency, dentin, form

Ex. 20. Read and retell the following text:

Malocclusion of teeth

Occlusion refers to the alignment of teeth and the way that the upper and lower teeth fit together (bite). Ideally, all upper teeth fit slightly over the lower teeth. The points of the molars fit the grooves of the opposite molar. The upper teeth keep the cheeks and lips from being bitten and the lower teeth protect the tongue.

Malocclusion means the teeth are not aligned properly. Malocclusion is most often hereditary, which means the condition is passed down through families. There may be a difference between the size of the upper and lower jaws or between jaw and tooth size, resulting in overcrowding of teeth or in abnormal bite patterns.

Variations in size or structure of either jaw may affect its shape, as can birth defects such as cleft lip and palate. Other causes of malocclusion include:

- Childhood habits such as thumb sucking, tongue thrusting, pacifier use beyond age 3, and prolonged use of a bottle
- Extra teeth, lost teeth, impacted teeth, or abnormally shaped teeth
- Ill-fitting dental fillings, crowns, appliances, retainers, or braces
- Misalignment of jaw fractures after a severe injury
- Tumors of the mouth and jaw

There are different categories of malocclusion.

Class 1 malocclusion is the most common. The bite is normal, but the upper teeth slightly overlap the lower teeth.

Class 2 malocclusion, called retrognathism or overbite, occurs when the upper jaw and teeth severely overlap the bottom jaw and teeth.

Class 3 malocclusion, called prognathism or underbite, occurs when the lower jaw protrudes or juts forward, causing the lower jaw and teeth to overlap the upper jaw and teeth.

Symptoms of malocclusion include:

- Abnormal alignment of teeth
- Abnormal appearance of the face
- Difficulty or discomfort when biting or chewing
- Speech difficulties (rare) including lisp
- Mouth breathing (breathing through the mouth without closing the lips)

Most problems with teeth alignment are discovered by a dentist during a routine exam. The dentist may pull your cheek outward and ask you to bite down to check how well your back teeth come together. If there is any problem, the dentist will usually refer you to an orthodontist for diagnosis and treatment. Dental x-rays, head or skull x-rays, or facial x-rays may be required. Plaster or plastic molds of the teeth are often needed.

Ex. 21. Complete the sentences with proper words given in italics:

1. Malocclusions may be symptomless or they may produce ... from increased ... on the oral structures. 2. Teeth may show abnormal signs of wear on the ... surfaces or decay in areas of tight overlap. 3. Chewing may be difficult. Malocclusion is most often found during a routine dental 4. A dentist will ... a patient's occlusion by watching how the teeth make contact when the patient bites down normally. 5. The dentist may ask the patient to ... down with a piece of coated paper between the upper and lower teeth; this paper will leave colored ... at the points of contact. 6. When malocclusion is suspected, photographs and x-rays of the face and ... may be taken for further study. *Check, eat, chewing, bite, stress, mouth, examination, pain, marks, cheek, painless, symptom.*

Ex. 22. Read the following text, divide it into logical parts and entitle them:

Very few people have perfect teeth alignment. However, most problems are so minor that they do not require treatment. Malocclusion is the most common reason for referral to an orthodontist. By treating moderate or severe malocclusion, the teeth are easier to clean and there is less risk of tooth decay and periodontal diseases (gingivitis or periodontitis). Treatment eliminates strain on the teeth, jaws, and muscles, which lessens the risk of breaking a tooth and may reduce symptoms of temporomandibular joint disorders. The goal is to correct the positioning of the teeth. Braces or other appliances may be used. Metal bands are placed around some teeth, or metal, ceramic, or plastic bonds are attached to the surface of the teeth. Wires or springs apply force to the teeth. One or more teeth may need to be removed if overcrowding is part of the problem. Rough or irregular teeth may be adjusted down, reshaped, and bonded or capped. Misshapen restorations and dental appliances should be repaired. Surgery may be required on rare occasions. This may include surgical reshaping to lengthen or shorten the jaw (orthognathic surgery). Wires, plates, or screws may be used to stabilize the jaw bone. Clear braces (aligners) without wires may be used in some patients.

It is important to brush and floss your teeth every day and have regular visits to a general dentist. Plaque accumulates on braces and may permanently mark teeth or cause tooth decay if not properly cared for. You may need a retainer to stabilize your teeth after having braces.

Problems with teeth alignment are easier, quicker, and less expensive to treat when they are corrected early. Treatment is most successful in children and adolescents because their bone is still soft and teeth are moved more easily. Treatment may last 6 months to 2 or more years, depending on the severity of the case.

Treatment of orthodontic disorders in adults is often successful but may require longer use of braces or other devices. Possible Complications include tooth decay, discomfort during treatment, Irritation of mouth and gums (gingivitis) caused by appliances, chewing or speaking difficulty during treatment. Call your orthodontist if toothache, mouth pain, or other new symptoms develop during orthodontic treatment.

Many types of malocclusion are not preventable. Control of habits such as thumb sucking may be necessary in some cases. However, early detection and treatment may optimize the time and method of treatment needed.

Ex. 23. Translate into English:

1. Вади розвитку зубів різноманітні. 2. Серед них розрізняють вади кількості зубів (адентія, позакомплектні зуби), вади розміру зубів (мікродентія, макродентія), вади форми зубів та вади тканин зубів (гіпоплазія). 3. Вади розвитку зубів, порушуючи естетичність прикусу, ведуть до цілого ряду анатомічних та функціональних змін зубо-щелепної системи. 4. Серед вад розвитку адентія займає одне з перших місць. 5. Найчастіше зустрічається адентія других премолярів,

бокових різців, третіх постійних молярів. 6. Одна з причин – спадковість. 7. Лікування адентії залежить від кількості відсутніх зубів і від виду аномалій прикусу, яка виникла на тлі даної патології. 8. Лікування дітей з повною адентією тимчасових і постійних зубів складається з виготовлення повних знімних протезів.

Overview

Numerous genetic and environmental factors may cause abnormalities in tooth development. Disorders of teeth development may be prenatal or postnatal in origin and may be inherited or acquired. All developmental abnormalities of teeth can be classified into anomalies of number, size, shape, structure and color. Anomalies of number are represented by anodontia, hypodontia, hyperdontia. Anomalies of size are represented by microdontia and macrodontia. Anomalies of shape include germination, fusion, concrescence, dilacerations, enamel pearl, talon cusp, taurodontism, supernumerary roots. Anomalies of structure can be divided into disturbances in structure of enamel, dentin and cementum.

Lesson 6

Types of dental diseases

VOCABULARY

to impair [ɪmˈpeɪə] шкодити, руйнувати

hypoplasia [ˈhɑːpɒˈplæziə, -Zə] гіпоплазія, недорозвиненість (органа, тканини)

decay [dɪˈkeɪ] розпад, руйнування, карієс

fluorosis [ˈfluːrəʊsɪs] флюороз (хронічна інтоксикація фтором)

erosion [ɪˈrəʊzən] ерозія, роз’їдання, руйнування

keratosis [kerəˈtəʊsɪs] кератоз (загальна назва дерматозів, що характеризуються потовщенням рогового шару епідермису)

patch [pætʃ] пляма, бляшка

fluoride [ˈfluːrɪd] фторид

pus [pʌs] гній

lesion [ˈliːʒən] пошкодження

rotting [ˈrɒtɪŋ] гниття

periosteum [ˈperɪˈɒstɪəm] надкістя, періост

leukoplakia [ˈ(l)uːkəˈplækɪə] лейкоплакія

alveolar [ælvɪˈəʊlə] альвеолярний

acid [ˈæksɪd] кислота

RULES OF READING CONSONANTS (ПРИГОЛОСКИ)

Letters	Sounds	Examples
kn	[n]	know
tch	[tʃ]	catch
th	[ð]	this
th	[tʰ]	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 *правильність*
 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. Familiarize yourself with the data of the following table:

ABSOLUTE PARTICIPLE CONSTRUCTION

NOUN (or)	PRONOUN	PARTICIPLE
Doctor(s)	I	Participle I (Active): V+ -ing (working; writing)
Student(s)	He	Participle I (Passive): being + V₃ (being worked; being written)
	She	
	It	Participle II (Passive): V₃ (worked; written)
	We	
	You	Perfect Participle (Active): having + V₃ (having worked; having written)
	They	
		Perfect Participle (Passive): having + been + V₃ (having been worked; having been written)

На початку речення The Absolute Participle Construction перекладається на українську мову підрядним реченням із сполучниками "після того, як", "коли":

The work having been done, the students went home. Після того, як робота була виконана, студенти пішли додому.

У другій частині речення The Absolute Participle Construction перекладається самостійним простим реченням із сполучниками "при цьому", "а", "і" або без них:

The physician examined the patient, **the students helping him**. Лікар оглянув хворого, а студенти допомогли йому.

Ex. 5. Read and translate the following sentences:

1. The patient having fallen asleep, the nurse left the ward. 2. The last patient having been examined, the doctor went to the laboratory. 3. The patient being very weak, the operation was postponed. 4. A foreign organism entering the body, it is attacked and destroyed by immune system. 5. My friend suffering from a severe pain, I called in a doctor. 6. The physician palpated the patient's abdomen, the pain becoming severe. 7. The operation having been performed, the patient's condition began to improve. 8. The patient was in a very bad state, his pulse being rapid.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 6. Read VOCABULARY and memorize new words.

Ex.7. Insert the missing letters:

D_sease, dec_y, hypopl_sia, fluor_de, di_order, pla_ue, g_m, pulp_tis, stomat_tis, ging_vitis, periodontit_s, surf_ce, e_osion, a_id, pal_te, tis_ue, compl_cation.

Ex.8. Translate the following words and word-combinations into your native language:

Symptoms and signs, disease, gum disease, tooth structure, pain, location, surface, noncarious lesions, mucous membrane, irritation of the gums, dentition, tooth wear, hard tissues, tooth cavity, functional features, progressive destruction, tumoral process, acidic foods, saliva, sticky substance, pressure, functional features, increased fragility, subsequent loss of teeth, progressive destruction,

Ex. 9. Read and translate the following text

Types of dental diseases

A disease is an abnormal condition of an organism that impairs bodily functions, associated with specific symptoms and signs. The mouth is an important organ with many different functions. It is also prone to a variety of medical and dental disorders.

A dental disease (syn. mouth disease, oral disease, stomatognathic disease) is a disease which affects the teeth or oral tissues. The World Health Organization uses the term "Diseases of oral cavity, salivary glands and jaws." Dental diseases may be classified into: 1) noncarious lesions; 2) dental caries; 3) carious complications; 4) the diseases of parodontium; 5) the diseases of oral mucous membrane.

Noncarious lesions of teeth present pathology of dental tissues, arising during teeth development (e.g. hypoplasia, fluorosis) or after the dentition (e.g. erosion, tooth wear, acid necrosis of hard tissues). *Fluorosis* is a chronic disease that is caused by excessive intake of fluoride. Excess of fluoride leads to uneven mineralization, increased fragility, defects of enamel. *Tooth erosion* is caused by acidic foods and drinks 'dissolving' away the surface of the tooth. Chemical *necrosis* happens to people who are constantly in contact with corrosive environments, mainly in manufacturing. Acid and some other substances damage the enamel. Acids may affect, directly entering the mouth, or dissolved in saliva after penetration through the respiratory system.

Dental caries (tooth decay) generally occurs when plaque is allowed to remain on the surface of a tooth for an extended period of time. Plaque is a sticky substance that is naturally formed in the mouth and contains bacteria which feed on the sugars that are present in foods and drinks. The bacteria produce an acidic waste product that can penetrate through the surface of the tooth, eventually leading to the formation of cavities.

Carious complications: Complications of dental caries include tooth loss, dental abscess, pulpitis, rotting teeth etc. A person with a *dental abscess* has a collection of pus near a tooth, caused by a bacterial infection. Pulpitis is the inflammation of the pulp, causing pain and pressure in the tooth.

The diseases of parodontium. Parodontium presents a complex of tissues surrounding root of the tooth and having the common genetic and functional features (periodontium, alveolar bone, gingiva with periosteum and dental tissues). *Gingivitis*, the first stage of periodontal disease, commonly known as gum disease, starts when the bacteria in dental plaque irritate the gums and cause infection. *Parodontitis* is the inflammation of parodontium tissues, characterized by progressive destruction of the parodontium and the bone. *Periodontitis* is a set of inflammatory diseases affecting the periodontium, i.e., the tissues that surround and support the teeth. Periodontitis involves progressive loss of the alveolar bone around the teeth, and if left untreated, can lead to the loosening and subsequent loss of teeth. *Parodontosis* is characterized by a dystrophic lesion of parodontium. Parodontoma is a tumoral process in parodontium.

The diseases of oral mucous membrane include oral cancer, oral leukoplakia, smoker's palate, oral candidosis, smoker's melanosis etc. *Leukoplakia* is a precancerous, slowly developing change in a mucous membrane characterized by thickened, white, firmly attached patches. *Nicotinic stomatitis*, or smoker's palate, is a common tobacco-related type of keratosis that occurs exclusively on the hard palate, and is classically associated with heavy pipe and cigar smoking.

Ex. 10. Find in the text English equivalents for the following Ukrainian words and word-combinations:

Травми зубів, слизова оболонка ротової порожнини, запалення ясен, поступове руйнування, альвеолярна кістка, розвиток зубів, пляма, ускладнення, тканини ротової порожнини, подразнювати, тканини, що оточують корінь зуба, проникати через поверхню зуба, підвищена крихкість, пошкоджувати емаль.

Ex. 11. Answer the following questions:

1. What is a dental disease? 2. What types of dental diseases do you know? 3. When does caries occur? 4. What is plaque? 5. What caries complications can you name? 6. What noncarious diseases can you call? 7. What kind of disease is pulpitis? 8. What diseases of parodontium do you know? 9. What kind of disease is periodontitis? 10. What structures does parodontium include? 11. What is dental abscess characterized by? 12. What is leukoplakia characterized by?

Ex. 12. Insert the missing words:

1. A dental disease is a disease which affects the _____ or gums. 2. Noncarious lesions of teeth present pathology of dental _____, arising during teeth development. 3. Erosion, tooth wear, acid necrosis of hard tissues are noncarious _____, occurring after the dentition. 4. Pulpitis is the _____ of the pulp 5. Parodontium presents a complex of tissues having the _____ genetic and functional features 6. Parodontitis is the inflammation of parodontium tissues, characterized by _____ destruction of the parodontium and the bone. 7. The diseases of oral _____ membrane include leukoplakia and stomatitis of different etiology.

Ex. 13. Read and translate the following text without dictionary:

Dental caries is a disease where bacterial processes damage hard tooth structure. Caries can be classified by location, etiology, rate of progression, and affected hard tissues. Gum disease may refer to gingivitis or periodontitis.

Gingivitis is an irritation of the gums. It is usually caused by bacterial plaque that accumulates in the small gaps between the gums and the teeth and by calculus (tartar) that forms on the teeth.

Periodontitis refers to a number of inflammatory diseases affecting the periodontium. Periodontitis involves progressive loss of the alveolar bone around the teeth, and if left untreated, can lead to the loosening and subsequent loss of teeth. Three main categories of periodontitis exist: chronic periodontitis, aggressive periodontitis, and periodontitis as a manifestation of systemic diseases.

Ex. 14. Fill in the table and give the examples for different types of dental diseases:

Noncarious lesions	Dental caries	Carious complications	Diseases of parodontium	Diseases of oral mucous membrane

Ex. 15. Insert the missing prepositions (by, with, to, of, in) and translate:

The first stage ... gum disease is known as gingivitis. As with tooth decay and cavities, gingivitis is caused ... bacteria in plaque that damage the gums by creating acid. Some ... the signs

and symptoms of gingivitis are swollen or puffy gums, bleeding when brushing or flossing, and persistent bad breath. Gingivitis is a reversible condition that can be treated ... proper oral hygiene and professional care. If left untreated, gingivitis can progress ... a serious type of oral disease known as periodontal disease. Periodontal disease can lead ... a weakening of the support system that holds the teeth ... place and the erosion of the gum line surrounding the teeth. Over time, periodontal disease can even cause loss ... the teeth. While gingivitis is reversible, the damage caused ... periodontal disease is permanent and is not reversible.

Ex. 16. Translate the words in brackets into English:

Oral cancer may (вразити) any part of the mouth and (горло) such as the (губи), larynx, (ясна), cheeks and (язик). (Ознаки) and symptoms of oral cancer may include (кровотечу), a sore that doesn't (загоюються) over time, white or red (плями) in the (поті), sore throat, and a lump or thickening in the (шиї). Anyone with any of the above symptoms that (тривають) for a couple of (тижнів) should consult with a health care professional (негайно).

Ex. 17. Read the following material:

SUMMARY

Резюме – це стислий виклад наукової праці, статті, тощо. В резюме висвітлюються найголовніші аспекти первинної наукової праці – статті, чи навіть книги:

1. зазначення проблеми;
2. її практичне вирішення;
3. отримані результати;
4. рекомендації щодо подальшого застосування.

Запропоновані фрагменти речень є найтипівішими при складанні резюме.

I. Головна тема чи проблема:

The present paper	describes ...	Ця стаття описує ...
This work	considers ...	Ця робота розглядає ...
This article	discusses ...	В статті обговорюється ...
The present article	analyzes ...	В статті аналізується ...
	deals with ...	розглядається...
	is devoted to the problems ...	Стаття присвячена проблемам ...
This work	gives a review of ...	Ця робота являє собою огляд ...

II. Мета вивчення:

The object of	this study is the	Метою	вивчення є дослідження ...
	investigation of ...		
	investigations is the		досліджень є покращення лікування ...
	improvement of		
	treating ...		
	experiment is the		експеримента є дослідження ...
	investigation of ...		
	this work is the study		цієї роботи є вивчення...
	...		

III. Зазначення основних положень:

It has been indicated (that) ...	Було вказано, що ...
It is necessary to say (that) ...	Необхідно сказати, що ...
This article has clearly shown (that) ...	Ця стаття ясно продемонструвала, що ...
It has been noted (that) ...	Відзначено, що ...
Much attention is paid to ...	Багато уваги приділяється ...
Great attention is paid to ...	Велика увага приділяється ...
Special attention is paid to ...	Особлива увага приділяється ...
It was stressed (that) ...	Підкреслено, що ...
It has been determined (that) ...	Встановлено, що ...
It should be noted (that) ...	Необхідно відзначити ...
The different points of view concerning ... are considered.	Представлені різні погляди щодо ...
Thereby ...	Таким чином,
Therefore ...	Тому, отже,
Further ...	Крім того, більш того
Furthermore ...	До того ж , окрім того
Thus ...	Так, отже, таким чином; тому
It was suggested ...	Було запропоновано ...
The current views of ... are considered.	Вивчаються сучасні погляди на ...
Up-to-date information about ... was studied.	Розглянута сучасна інформація щодо ...
Basic principles of ... have been formulated.	Були сформульовані загальні принципи ...

IV. Застосування на практиці

New method	is used	Новий метод	використовують ...
	is experimented ...		апробують ...
This treatment	is proposed ...	Данне лікування	пропонується...
	is suggested ...		пропонується...
This problem	is investigated ...	Цю проблему	досліджують ...
	is discussed ...		обговорюють ...

V. Висновки та результати:

It can be concluded from this study (that) ...	На основі представленого дослідження можна зробити висновок, що ...
On the basis of the results of this study it was proved ...	На основі результатів цього дослідження було доведено ...
On the basis of these observations, an attempt is made to ..	На основі результатів наукових спостережень зроблена спроба ...
The given results showed (that) ...	Отримані результатів виявили, що ...
The achieved data indicated ...	Отримані результати виявили ...
It has been adequately demonstrated that ...	Було продемонстровано, що ...

Ex.18. Compose summary to the text “Types of dental diseases”

Overview

A dental disease is a disease which affects the teeth or oral tissues. Dental diseases may be classified into: 1) noncarious lesions; 2) dental caries; 3) carious complications; 4) the diseases of parodontium; 5) the diseases of oral mucous membrane. Noncarious lesions of teeth present pathology of dental tissues, arising during teeth development or after the dentition. Dental caries generally occurs when plaque is allowed to remain on the surface of a tooth for an extended period of time. Complications of dental caries include tooth loss, dental abscess, pulpitis, rotting teeth etc. The diseases of parodontium are represented by gingivitis, periodontitis, parodontitis, parodontosis, parodontoma etc. The diseases of oral mucous membrane include oral cancer, oral leukoplakia, smoker's palate, oral candidosis, smoker's melanosis etc.

Lesson 7 Caries

VOCABULARY

to cause [kO:z] спричиняти, викликати

dissolution [ˈdɪsəˈluːʃən] розчинення

to expose [ɪkˈspəʊz] піддавати дії,
залишати незахищеним

sucrose [ˈs(j)uːkrəʊs] сахароза

fermentable [fɜːˈmentəbəl] здатний до бродіння

lesion [ˈliːʒən] пошкодження **carbohydrate**

[ˈkOːb(ə)ˈhaɪdr(e)ɪt] вуглевод

to experience [ɪksˈpɪəriəns] відчувати

criteria (sing. criterion) [kraɪˈtɪ(ə)rɪə] критерії

to advocate [ˈædvəkeɪt] підтримувати

to be aware (of) [əˈweə] знати, усвідомлювати

incipient [ɪnˈsɪpiənt] початковий

noticeable [ˈnɒtɪsəbəl] помітний

explorer [ɪksˈplɔːrə] зонд

measures [ˈmeʒəz] заходи

radiograph [ˈreɪdɪəˈɡræf] рентгенівський
знімок

to restore [rɪˈstɔː] відновлювати

apparent [əˈpɪərənt] очевидний, видимий

frequently [ˈfriːkwəntli] часто

to occur [əˈkɜː] траплятися, виникати

damage [ˈdæmɪdʒ] пошкодження

RULES OF READING

MUTE LETTERS (“НІМІ” ЛІТЕРИ)

Letters	Notes	Examples
b	у сполученнях <i>bt, mb</i>	debt [det] comb [kʊm] climb [klaɪm]
c	у сполученні <i>sc</i> перед літерами <i>t, i, y</i>	science [ˈsaɪəns]
e	в кінці слова, коли вона не єдина голосна	late [leɪt]

Ex. 1. Read the following words:

Comb; climb; limb; debt; doubt; scene; visceral; susceptibility; abscess; late; rule; true; nurse; course.

WORD-BUILDING

Ex. 2. Familiarize yourself with the following material:

Suffixes of Adjectives:

-ar

muscular – м'язовий

-ic (pertaining to)

energy енергія – energetic енергійний

grammar граматикика – grammatic граматичний

-ive

to attract приваблювати, вабити – attractive приваблювий

to act діяти – active дієвий, активний

Ex. 3. Read and translate the following words:

A. Orbicular; mandibular; alveolar; particular; cellular; similar; polar; molecular; regular; reticular; cardiovascular.

B. Economic; chronic; plastic; scientific; public; peptic; embryonic; electronic; allergic; narcotic; academic; therapeutic; pathologic.

C. Connective; constructive; effective; protective; contractive; active; native; sensitive; adhesive; objective; respective.

GRAMMAR:

Ex. 4. Read the data of the following table:

CONSTRUCTION “IT IS (WAS, WILL BE) ... THAT (WHO, WHOM)”

It was I who saw nurse in the hospital.	Саме я бачив медсестру у лікарні.
It was in the hospital that I saw the nurse.	Саме у лікарні я бачив медсестру.
It was the nurse whom I saw in the hospital.	Саме медсестру я бачив у лікарні.

Ex. 5. Translate the following sentences into your native language:

1. It is in the evening that the patient develops a splitting headache. 2. It was after vomiting that patient Popov complained of severe pains in the back. 3. It was the patient of the third ward who asked some medicine for a bad headache. 4. It was severe pains in his legs and feet that he complained of. 5. It was about one of the new methods of testing that our professor spoke at the scientific conference.

Ex. 6. Translate into English:

1. Саме у дітей молодшого віку грип небезпечний. 2. Саме при тяжких випадках грипу у дітей часто виникає блювота. 3. Саме при типовій формі грипу початок захворювання буває раптовим та починається з ознобу.

READING AND DEVELOPING SPEAKING SKILLS

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

Ex.8. Insert the missing letters:

Car_es, tiss_e, c_own, r_ot, surfa_e, dis_ase, ba_teria, tre_tment, ac_d, carbo_ydrate, f_nction, hyg_ene, en_mel, ca_ity, deca_, pa_n, dia_nosis.

Ex.9. Read and translate the following words and word-combinations:

Dental caries, demineralization, surface, root, crown, common diseases, carious lesion, stain, spot, lactic acid, health organizations, sign, appearance, dentin, inspection, bad breath, visible, dental mirror, lesion.

Ex.10. Read the following words:

Caries, enamel, dentin, cementum, crown, root, neck, disease, diagnose, diagnosis, sign, symptom, lesion, damage, carbohydrate, sucrose, function, structure, incipient, measure.

Ex. 11. Read and translate the following text:

Dental caries

Dental caries is a disease that causes demineralization and dissolution of the dental tissues. This process occurs not only in the crown of the tooth, but also on the root surface, when it is exposed.

Today, caries remains one of the most common diseases throughout the world. Cariology is the study of dental caries.

There are four main criteria required for caries formation: a tooth surface (enamel or dentin); caries-causing bacteria; fermentable carbohydrates (such as sucrose); and time. Depending on the extent of tooth destruction, various treatments can be used to restore teeth to proper form, function, and aesthetics, but there is no known method to regenerate large amounts of tooth structure. Instead, dental health organizations advocate preventive and prophylactic measures, such as regular oral hygiene and dietary modifications, to avoid dental caries.

A person experiencing caries may not be aware of the disease. The earliest sign of a new carious lesion is the appearance of a chalky white spot on the surface of the tooth, indicating an area of demineralization of enamel. This is referred to as incipient decay. As the lesion continues to demineralize, it can turn brown but will eventually turn into a cavitation ("cavity"). Before the cavity forms, the process is reversible, but once a cavity forms, the lost tooth structure cannot be regenerated. A lesion which appears brown and shiny suggests dental caries was once present but the demineralization process has stopped, leaving a stain. A brown spot which is dull in appearance is probably a sign of active caries.

As the enamel and dentin are destroyed, the cavity becomes more noticeable. The affected areas of the tooth change color and become soft to the touch. Once the decay passes through enamel, the dentinal tubules, which have passages to the nerve of the tooth, become exposed and cause the tooth to hurt. The pain may worsen with exposure to heat, cold, or sweet foods and drinks. Dental caries can also cause bad breath and foul tastes. In highly progressed cases, infection can spread from the tooth to the surrounding soft tissues.

Primary diagnosis involves inspection of all visible tooth surfaces using a good light source, dental mirror and explorer. Dental radiographs (X-rays) may show dental caries before it is otherwise visible, particularly caries between the teeth. Large dental caries is often apparent to the naked eye, but smaller lesions can be difficult to identify. Visual and tactile inspection along with radiographs is employed frequently among dentists, particularly to diagnose pit and fissure caries.

Ex.12. Find in the text English equivalents for these words and word-combinations:

Візуальний огляд, менші пошкодження, часто використовується стоматологами, м'який на дотик, призводить до, залишатися, при наявності, залежно від, відновити зуби, чутливий, особливо, гігієна ротової порожнини, більш помітний, різні методи лікування, профілактичні заходи, видимі поверхні зуба, тьмяний на вигляд.

Ex.13. Answer the following questions:

1. What kind of disease is dental caries? 2. What is tooth decay caused by? 3. Is there any known method to regenerate large amounts of tooth structure? 4. What preventive and prophylactic measures are recommended to avoid dental caries? 5. What is the earliest sign of a new carious lesion? 6. When is it impossible to regenerate the lost tooth structure? 7. What is the sign of active caries? 8. When does the cavity become more noticeable? 9. What causes the tooth to hurt? 10. What does primary diagnosis involve?

Ex.14. Insert the missing prepositions: (at, against, before, of, with, on, from):

Some dental researchers have cautioned_____ the use of dental explorers to find caries. In cases where a small area ____ tooth has begun demineralizing but has not yet cavitated, the pressure ____ the dental explorer could cause a cavity. Since the carious process is reversible _____ a cavity is present, it may be possible to arrest the caries _____ fluoride and remineralize the tooth surface. When a cavity is present, a restoration will be needed to replace the lost tooth structure.

_____ times, pit and fissure caries may be difficult to detect. Bacteria can penetrate the enamel to reach dentin, but then the outer surface may remineralize, especially if fluoride is present. These caries, sometimes referred to as "hidden caries", will still be visible ____ x-ray radiographs, but visual examination ____ the tooth would show the enamel intact or minimally perforated.

Ex.15. Entitle the text and answer the questions:

1. What kind of caries is called "facial caries"? 2. What kind of caries is called "lingual caries"? 3. What kind of caries is called cervical caries? 4. What is the difference between "mesial" and "distal" caries?

Caries lesions can be described further by their location on a particular surface of a tooth. Caries on a tooth's surface that is nearest the cheeks or lips is called "facial caries", and caries on surfaces facing the tongue is known as "lingual caries". Facial caries can be subdivided into buccal (when found on the surfaces of posterior teeth nearest the cheeks) and labial (when found on the surfaces of anterior teeth nearest the lips). Lingual caries can also be described as palatal when found on the lingual surfaces of maxillary teeth because they are located beside the hard palate.

Caries near a tooth's cervix—the location where the crown of a tooth and its roots meet—is referred to as cervical caries. Occlusal caries is found on the chewing surfaces of posterior teeth. Incisal caries is caries found on the chewing surfaces of anterior teeth. Caries can also be described as "mesial" or "distal." Mesial signifies a location on a tooth closer to the median line of the face, which is located on a vertical axis between the eyes, down the nose, and between the contact of the central incisors. Locations on a tooth further away from the median line are described as distal.

Ex.16. Organize the information of the text in table:

Carious lesions	Location on a particular surface of a tooth
facial caries	surface that is nearest the cheeks or lips

Ex.17. Read following text, divide it into logical parts, and retell them:**Treatment of caries**

Destroyed tooth structure does not fully regenerate, although remineralization of very small carious lesions may occur if dental hygiene is kept at optimal level. For the small lesions, topical fluoride is sometimes used to encourage remineralization. For larger lesions, the progression of dental caries can be stopped by treatment. The goal of treatment is to preserve tooth structures and prevent further destruction of the tooth.

Generally, early treatment is less painful and less expensive than treatment of extensive decay. Anesthetics may be required in some cases to relieve pain during or following treatment or to relieve anxiety during treatment. A dental handpiece ("drill") is used to remove large portions of decayed material from a tooth. A spoon is a dental instrument used to remove decay carefully and is sometimes employed when the decay in dentin reaches near the pulp. Once the decay is removed, the missing tooth structure requires a dental restoration of some sort to return the tooth to functionality and aesthetic condition.

Restorative materials include dental amalgam, composite resin, porcelain, and gold. Composite resin and porcelain can be made to match the color of a patient's natural teeth and are thus used more frequently. When the decay is too extensive, there may not be enough tooth structure remaining to allow a restorative material to be placed within the tooth. Thus, a crown may be needed. This restoration appears similar to a cap and is fitted over the remainder of the natural crown of the tooth. Crowns are often made of gold, porcelain, or porcelain fused to metal.

In certain cases, root canal therapy may be necessary for the restoration of a tooth. Root canal therapy, also called "endodontic therapy", is recommended if the pulp in a tooth dies from infection by decay-causing bacteria or from trauma. During a root canal, the pulp of the tooth, including the nerve and vascular tissues, is removed along with decayed portions of the tooth. The canals are instrumented with endodontic files to clean and shape them, and they are then usually filled with a rubber-like material called gutta percha. The tooth is filled and a crown can be placed.

An extraction can also serve as treatment for dental caries. The removal of the decayed tooth is performed if the tooth is too far destroyed from the decay process to effectively restore the tooth.

Ex.18. Write out key words of the text "Treatment of caries".**Ex.19. Compose the plan to the text "Treatment of caries".****Ex.20. Narrate the text "Treatment of caries".**

These phrases will help you to do it:

The text describes...	У тексті описується ...
I'd like to start with a description of ...	Я хотів би розпочати з опису ...
It is important to point out that ...	Важливо вказати, що ...
Let me pass to the description of ...	Дозвольте перейти до опису ...
What I have found out is that ...	Що мені вдалося з'ясувати, це те, що ...
The author makes it clear that ...	Автор чітко стверджує, що ...
In conclusion let me remain again that ...	На завершення дозвольте нагадати знову, що ...
It is necessary to make further investigation of ...	Необхідно здійснити подальше дослідження ...

Ex.21. Insert the missing words given below:

Worldwide, most children and an estimated ninety _____ of adults have experienced caries, with the disease most prevalent in Asian and Latin American _____ and least prevalent in African countries. In the United States, dental _____ is the most common chronic _____ disease, being at least five times more common than asthma. It is the primary pathological _____ of tooth loss in children. Between 29% and 59% of adults over the age of fifty _____ caries. The number of _____ has decreased in some developed countries, and this decline is usually attributed to increasingly better oral _____ practices and preventive measures such as _____ treatment.

caries, hygiene, percent, cause, fluoride, countries, experience, cases, childhood

Ex.22. Read the text and make up a dialogue “The ways of preventing caries”

Personal hygiene care consists of proper brushing and flossing daily. The purpose of oral hygiene is to minimize any etiologic agents of disease in the mouth. The primary focus of brushing and flossing is to remove and prevent the formation of plaque. Plaque consists mostly of bacteria. As the amount of bacterial plaque increases, the tooth is more vulnerable to dental caries when carbohydrate is in the food left on teeth after every meal or snack. A toothbrush can be used to remove plaque on accessible surfaces, but not between teeth or inside pits and fissures on chewing surfaces. When used correctly, dental floss removes plaque from areas which could otherwise develop proximal caries.

Professional hygiene care consists of regular dental examinations and cleanings. Sometimes, complete plaque removal is difficult, and a dentist or dental hygienist may be needed.

The use of dental sealants is a means of prevention. A sealant is a thin plastic-like coating applied to the chewing surfaces of the molars. This coating prevents the accumulation of plaque in the deep grooves and thus prevents the formation of pit and fissure caries, the most common form of dental caries. Sealants are usually applied on the teeth of children, shortly after the molars erupt. Older people may also benefit from the use of tooth sealants, but their dental history and likelihood of caries formation are usually taken into consideration.

Fluoride therapy is often recommended to protect against dental caries. It has been demonstrated that water fluoridation and fluoride supplements decrease the incidence of dental caries. Topical fluoride is also recommended to protect the surface of the teeth. This may include a fluoride toothpaste or mouthwash. Many dentists include application of topical fluoride solutions as part of routine visits.

Ex.23. Translate the following sentences into English:

1. Карієс – одне з найпоширеніших захворювань у світі. 2. Першою ознакою каріозного пошкодження є поява крейджаної білої плями на поверхні зуба. 3. Якщо порожнина вже утворилася, втрачену структуру зуба неможливо відновити. 4. Колір пошкоджених ділянок зуба змінюється. Вони стають м'якими на дотик. 5. Для того, щоб діагностувати карієс, необхідно ретельно оглянути усі видимі поверхні зуба за допомогою стоматологічних інструментів. 6. Іноколи буває складно виявити невеликі каріозні пошкодження.

Overview

Dental caries is a disease that causes demineralization and dissolution of the dental tissues. This process occurs not only in the crown of the tooth, but also on the root surface, when it is exposed. There are four main criteria required for caries formation: a tooth surface (enamel or dentin); caries-causing bacteria; fermentable carbohydrates (such as sucrose); and time. Various treatments can be used to restore teeth to proper form, function, and aesthetics, but there is no known method to

regenerate large amounts of tooth structure. The earliest sign of a new carious lesion is the appearance of a chalky white spot on the surface of the tooth. This is referred to as incipient decay. As the lesion continues to demineralize, it can turn brown but will eventually turn into a cavity. Before the cavity forms, the process is reversible, but once a cavity forms, the lost tooth structure cannot be regenerated. Primary diagnosis involves inspection of all visible tooth surfaces using dental instruments.

Lesson 8

Pulp diseases

VOCABULARY

pulpitis [pʌlpʌtɪs] пульпіт	to range [reɪnɡ] коливатися у межах
to extend [ɪk'stend], [ek'stend] простягатися	to offset ['ɒfset] заміщати, компенсувати
pus [pʌs] гній	properly ['prɒp(ə)li] належним чином, як слід
abscess ['æbsəs] абсцес, нарів	to crack [kræk] тріскатися, розколюватися
vulnerable ['vʌln(ə)rəbl] уразливий	chamber ['tʃeɪmbə] камера
abrasion [ə'breɪʒ(ə)n] (патологічне) стертя зуба	to cure [kjʊə] лікувати, зцілювати
erosion [ɪ'rəʊʒ(ə)n] ерозія емалі та дентину	compressed [kəm'prest] стиснутий
to grind [ɡraɪnd] шліфувати	irritating ['ɪrɪteɪtɪŋ] подразнюючий
reversible [rɪ'veɪsəbl] оборотний	to vary ['vɛəri] різнитися, відрізнятися
irreversible [ɪrɪ'veɪsəbl] необоротний	maintain [meɪn'teɪn] підтримувати, зберігати

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

Prefixes and term-elements:

inter- (between)

intra- (within)

macro- (large)

Ex. 2. Read and translate the following words:

A. Intercellular, interspersed, interdependence; intercostal; interaction; international; interrelate; intermediate; interphase.

B. Intracellular, intravenous; intramuscular; intracranial; intracardiac; intrapleural; intrathoracic; intraspinal.

C. Macrocephalia; macromolecule; macrophage.

GRAMMAR:

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

SIMPLE TENSES (REVISION)

Tense	Active Voice	Passive Voice
Present	V, V+s	am (is, are) + V₃
Past	V₂	was (were) + V₃
Future	will (shall) + V	will (shall) + be + V₃

Ex. 4. Insert the correct forms of the verbs and translate the sentences into your native language:

1. Immune system (to design) by nature millions of years ago to aid the body in recovering from injuries and illnesses. 2. The lymph (to flow) from the capillaries in all parts of the body into the

lymphatic vessels. 3. Although we (to inhale) and (to eat) thousands of germs every day, the immune system (to prevent) the spread of various diseases. 4. We (to bear) with a genetically based natural defense system. 5. Diabetes (to occur) when the cells in the pancreas are destroyed. 6. Your immune system (to need) help to function at the highest capacity. 7. Sticky mucus in respiratory and gastrointestinal tracts (to trap) many microorganisms.

Ex. 5. Determine the tense-forms of the predicates in the following sentences:

1. Foreign substances enter the body and cause the manufacture of antibodies. 2. Various bacteria live in the nose and mouth. 3. An anaerobe is a microorganism that can live without oxygen, while an aerobe requires oxygen. 4. Some macrophages are concentrated in the lungs, liver, lining of the lymph nodes and spleen. 5. B cells are produced in the stem cells of the bone marrow. 6. Phagocytes dissolve and destroy bacteria, viruses, and fungi. 7. The lymph nodes are usually distributed in groups.

READING AND DEVELOPING SPEAKING SKILLS

Ex.6. Read VOCABULARY and memorize new words.

Ex.7. Compose your own sentences using VOCABULARY.

Ex.8. Insert the missing letters, translate the words:

Pulp_tis, p_lp, bl_od, ves_els, tiss_e, cro_n, r_ot, de_ay, dise_se, abra_ion, e_osion, c_amber, la_er, fillin_, sensiti_ity, inf_ammation, tre_tment, pa_n.

Ex.9. Read and translate the following words and word-combinations:

Nerves, blood vessels, chamber, to prevent, treatment, damage, periodontal disease, trauma, tooth decay, outer layers, preparation, filling, mild sensitivity, surrounding tissues, dental abscess, collection, bacteria, pus, oral health, hardened tissue, extreme pain.

Ex.10. Read and translate the following text:

Pulp Diseases

The life or death of a tooth depends on the health of the pulp. This network of nerves, blood vessels, and tissues is housed in a hollow central chamber that extends from the crown of the tooth to its roots. The branch of dentistry that specializes in preventing and treating pulp problems is called endodontics.

The pulp can be damaged in a number of ways. One of the most common is through undetected tooth decay. Advanced periodontal disease can also infect the pulp. Pulp damage also occurs when a tooth is broken or knocked out. Abrasion and erosion can wear away the tooth's hard outer layers, leaving the pulp vulnerable. Finally, the pulp may be injured when your dentist grinds a tooth in preparation for a deep filling or restoration.

Pulp damage can be as either reversible or irreversible. It can range from mild tooth sensitivity to complete nerve death of the tooth to infection of the surrounding tissues.

There are several different pulp diseases, including:

Reversible pulpitis, or mild inflammation of the pulp. Symptoms typically include pain upon eating or drinking something very sweet, hot, or cold. Without treatment, the inflammation can progress to a dental abscess, a collection of bacteria and pus. Good oral health habits can help offset reversible pulpitis, but in many cases, a filling is eventually needed.

Irreversible pulpitis, or severe inflammation of the pulp that can't be cured. Symptoms include sudden intense pain. Left untreated, it can result in a widespread gum and connective tissue infection. Irreversible pulpitis is generally treated with a root canal procedure. If that doesn't work, your dentist may have to remove the tooth.

Dental pulp calcification (also known as dental pulp stones). This is a condition in which hardening, or calcification, of pulp tissue results in hypersensitivity and extreme pain because the dental nerves become compressed. A root canal is usually necessary to clear away hardened tissue.

Dental pulp exposure. This condition comes on when damage to the external covering of a tooth, such as a cavity or crack in the tooth, exposes the normally protected pulp to bacteria and irritating food particles.

Pain is the most frequent symptom and without proper dental care, a mild infection can progress into a serious abscess.

Depending on the type of pulp disease, symptoms may vary in intensity and can include:

- Pain in a tooth or teeth when you eat something very sweet, hot, or cold;
- Sudden, intense pain in the mouth;
- Infection in the mouth.

If pulp diseases aren't properly managed, you can lose your teeth.

Ex.11. Find in the text the English equivalents for the following word-combinations:

Кровоносні судини, галузь стоматології, запобігання хворобам пульпи, тверді зовнішні шари зуба, пошкодження пульпи, оточуючі тканини, запалення пульпи, раптовий біль, інфекція сполучної тканини, видалити зуб, затверділа тканина, частки їжі, гігієна ротової порожнини.

Ex.12. Answer the following questions:

1. How can the pulp be damaged? 2. What pulp diseases can you name? 3. What are the symptoms of reversible pulpitis? 4. What can untreated irreversible pulpitis result in? 5. Why does the patient experience extreme pain in case of dental pulp calcification? 6. What kind of condition is dental pulp exposure? 7. What symptoms of pulp diseases do you know? 8. What is the best way to prevent pulp diseases?

Ex.13. Insert the missing words:

1. Pulp damage can range from mild tooth _____ to complete nerve death of the tooth to infection of the _____ tissues. 2. The branch of _____ that specializes in preventing and treating pulp problems is called endodontics. 3. Pain is the most _____ symptom of dental pulp exposure. 4. Advanced periodontal _____ can also infect the pulp. 5. The pulp may be injured when your dentist grinds a tooth in _____ for a deep filling or restoration. 6. Poor dental _____ is the main reason for tooth decay, tooth pain, and other oral health conditions.

Ex.14. Write out key words of the text “Pulp diseases”.

Ex.15. Compose the detailed plan of the text “Pulp diseases”.

Ex.16. Retell the text “Pulp diseases” according to your plan.

Ex.17. Read and retell the following text:

Pulpitis

Pulpitis is the term for all forms of pulp inflammation. The pulp may be irritated by decay in the nearby dentin or by inflammation from periodontal disease. Often pulpitis is reversible. In some cases, a natural coating of dentin will form over the pulp to shield it from the irritant, and the nerve will recover without treatment.

In situations where the pulp cannot heal itself, pulpitis is classified as irreversible. A bacterial infection in the pulp usually kills the nerve. The infection then spreads through the dead tissue in the root canal and passes through the opening at the end of the root into the surrounding tissues. A cavity then forms in the alveolar bone and fills with pus. This pocket of infection is called an abscess. The pressure from the swelling tissue and the mounting pus forces the tooth slightly upward. At this point, severe pain, fever, weakness, and facial swelling are almost always present. Root canal therapy or tooth extraction are the only ways to prevent the infection from invading other parts of the body.

Ex.18. Insert the missing words given below:

When the pulp becomes inflamed _____ begins to build up in the pulp cavity exerting pressure on the nerve of the tooth and the surrounding _____. Pressure from inflammation can cause mild to extreme ____, depending upon the severity of the inflammation. Often, _____ can create so much pressure on the tooth nerve the individual will have trouble locating the _____ of the pain, confusing it with neighbouring _____. Unlike other parts of the _____ where pressure can dissipate through the surrounding soft tissues and where lymph can reach, the pulp _____ is very different. The dentin surrounding the pulp is _____ and does not give under the pressure of the inflammation so the pressure has very little chance of dissipating before pulpal necrosis occurs.

tissues, pulpitis, pain, source, pressure, hard, cavity, body, teeth
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Ex.19. Read the text and speak on stages of root canal therapy:

Pulp Diseases Treatment: Root Canal Therapy

If damaged pulp in your tooth isn't taken out, a severe infection can spread to surrounding tissue, including your jaw bone. A root canal procedure to remove the pulp tissue is usually performed over several visits by a regular dentist or a pulp specialist, called an endodontist. The root canal therapy may spare you from having to get the infected tooth removed.

Here's what you can expect from root canal therapy:

First visit. The diseased pulp is removed and the empty space, the root canal, is cleaned out and enlarged. Special medications may be placed in the canal to disinfect the area. A temporary filling may be placed as well, or your dentist may choose to leave the canal open and let the tooth drain for a few days. An oral antibiotic may also be recommended to treat infection in the tissues surrounding your tooth.

Second visit. The temporary filling is removed and a permanent filling is placed.

Final visit. A crown is placed over the tooth to reinforce the tooth and make it stronger.

Overview

The life or death of a tooth depends on the health of the pulp. The pulp can be damaged due to undetected tooth decay, advanced periodontal disease, broken or knocked out tooth, abrasion and erosion. Pulp damage can be reversible or irreversible. There are several different pulp diseases, including: reversible pulpitis, irreversible pulpitis, dental pulp calcification, dental pulp exposure. Depending on the type of pulp disease, symptoms may vary in intensity and can include: pain in a

tooth or teeth when you eat something very sweet, hot, or cold; sudden, intense pain in the mouth; infection in the mouth. Treatment of pulp diseases includes root canal therapy or extraction.

Lesson 9

Periodontal diseases

VOCABULARY

attach [q'tɛC] прикріплювати

build-up ['bɪldʌp] накопичення

breakdown ['breɪkdʌwn] пошкодження

occur [q'kq:] траплятися, виникати

swollen ['swʊl(q)n] набряклий

sulcus ['sʌlkʊs] борозна

gap [gɛp] щілина, зазор, інтервал

diet ['daɪt] харчування

partial ['pɑːs(q)l] частковий

bleed [bli:d] кровоточити

probe [prəʊb] зонд

mouthwash ['maʊtʰwɒʃ] ополіскувач ротової порожнини

avoid [q'vɔɪd] уникати

lesion ['liːʒən] пошкодження

option ['ɒpʃ(q)n] вибір, можливий варіант

crooked ['krʊkɪd] кривий, вигнутий

flossing ['flɒsɪŋ] чищення зубів зубною ниткою

tender ['tendɪ] слабкий, чутливий

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

Prefixes and term-elements:

mal- (bad)

malposed в аномальному положенні, ненормально розміщений

micro- (small)

microtubule мікротрубочка

mis-

to inform інформувати – to misinform неправильно інформувати

Ex. 2. Read and translate the following words:

A. Malignant; malaise; malnutrition; malfunction.

B. Microscopic; microscopist; microulceration; microorganism; microvilli; microbiology; microtubule.

C. Misunderstand; misinform; misadvise; misaligned; misapply; misbecome; misbirth; miscall; miscode.

GRAMMAR:

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

FUNCTIONS OF “ONE”

AIDS is one of the most common diseases.	СНІД – одне з найбільш розповсюджених захворювань.
One may discuss this problem now.	Це питання можна обговорити зараз.
The right lung has three lobes, and the left one has two.	Праве легеня має три частки, а ліве – дві.

Ex. 4. Read and translate the following sentences into your native language:

1. The upper opening of the stomach is called the cardiac sphincter and the lower one is called the pyloric sphincter. 2. Most organs are composed of two or more tissue types that perform one or more common functions. 3. One of the greatest contributions to the world science made by V. Vorobyov was "Atlas on Human Anatomy". 4. The upper cavity of the trunk is called the chest and the lower one is called the abdomen. 5. 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. 6. Upper and lower incisors, cuspids and lower bicuspid are one root teeth, upper bicuspid and lower molars are two root teeth, upper molars are three root ones. 7. The blood analysis, urine ones and other tests help to make a correct diagnosis and administer proper treatment. 8. One can see surgical, cardiological, pulmonological, gastroenterological and other departments in this clinic. 9. In the cardiological department one can see patients with heart diseases, such as: myocarditis, pericarditis, cardiosclerosis and others. 10. Take these tablets one every three hours. 11. There are no serious injuries. Only superficial ones. 12. AIDS is one of the most dangerous diseases.

READING AND DEVELOPING SPEAKING SKILLS

Ex.5. Read VOCABULARY and memorize new words.

Ex.6. Compose your own sentences using VOCABULARY.

Ex.7. Insert the missing letters:

G_m, infe_tion, si_n, inflamma_ion, attac_ment, pla_ue, le_ion, gingiv_tis, peri_dontitis, p_s, flo_sing, toot_paste, mouth_ash, or_l, cav_ty, hy_ienist, de_tist, calc_lus, ta_tar.

Ex.8. Read and translate the following words and word-combinations:

Gum diseases, dental plaque, inflammation, overall health, well-balanced diet, chewing surfaces, at least, the depth of the pocket, routine dental examination, hormonal changes, poor oral hygiene, increase, partial dentures, bite, loose teeth, chewing, bleeding gums, warning signs, dental health professional, toothpastes, mouthwashes, swollen gums, flossing.

Ex.9. Read and translate the following text:

Periodontal diseases

Periodontal (gum) diseases are infections of the gums and bone that surround and support the teeth. Teeth are supported by the gums, or gingiva. A tooth's root is anchored to its socket by fibers called periodontal ligaments. The gums do not attach to the teeth as firmly as one might think. A shallow, V-shaped gap called a sulcus exists between the teeth and the gums. Periodontal disease affects this gap. Eventually, in periodontal disease, the tissues supporting the tooth break down. If only the gums are involved in this breakdown, the disease is called gingivitis. If only the connecting tissues and bone are involved, it is called periodontitis.

Bacteria in the mouth infect tissue surrounding the tooth, causing inflammation around the tooth leading to periodontal disease. When bacteria stay on the teeth long enough, they form a film called plaque, which eventually hardens to tartar, also called calculus. Tartar build-up can spread below the gum line, which makes the teeth harder to clean. Then, only a dental health professional can remove the tartar and stop the periodontal disease process.

The following are warning signs of periodontal disease:

- Bad breath or bad taste that won't go away

- Red or swollen gums
- Tender or bleeding gums
- Painful chewing
- Loose teeth
- Sensitive teeth
- Gums that have pulled away from your teeth
- Any change in the way your teeth fit together when you bite
- Any change in the fit of partial dentures

Certain factors increase the risk for periodontal disease: smoking, diabetes, poor oral hygiene, stress, heredity, crooked teeth, underlying immuno-deficiencies (e.g. AIDS), fillings that have become defective, taking medications that cause dry mouth, bridges that no longer fit properly, female hormonal changes, such as with pregnancy or the use of oral contraceptives.

During any routine dental examination, a dentist will do a periodontal exam of the gums. The dentist may use a probe to measure the depth of the pocket between the teeth and the gums. Special X-ray films may be used to evaluate the teeth, the bones supporting the teeth, and other mouth structures. If periodontal disease is present, the dentist will make recommendations or refer the person to a specialist (periodontist).

Good oral hygiene prevents periodontal disease. Brush the teeth at least twice every day. Brushing removes plaque from the inner, outer, and chewing surfaces of each tooth. A dental hygienist can demonstrate the proper technique. Get a new toothbrush every 3 months. Use a toothpaste that contains fluoride. Floss every day. Flossing removes plaque between the teeth that a toothbrush cannot reach. Use a mouthwash that kills bacteria. Eat a well-balanced diet; avoid too many sweets.

The goals of gum disease treatment are to promote reattachment of healthy gums to teeth; reduce swelling, the depth of pockets, and the risk of infection; and to stop disease progression. Treatment options depend on the stage of disease, how you may have responded to earlier treatments, and your overall health. Options range from nonsurgical therapies that control bacterial growth to surgery to restore supportive tissues.

Ex.10. Find in the text the English equivalents for the following word-combinations:

Оцінити стан зубів, спадковість, неглибокий проміжок, між зубами і яснами, навколо зуба, зубний камінь, неприємний присмак, чутливі зуби, вагітність, вимірювати, направити пацієнта до пародонтолога, двічі на день, знищувати бактерії, лікування без хірургічного втручання.

Ex.11. Answer the following questions:

1. What diseases are called periodontal ones? 2. What are periodontal ligaments? 3. What is sulcus? 4. What is the primary cause of periodontal diseases? 5. How is calculus formed on teeth? 6. Why should the tartar be removed? 6. What are the signs of periodontal diseases? 7. What factors increase the risk for periodontal diseases? 8. What instrument is used to measure the depth of the pocket? 9. What is the best way to prevent periodontal diseases? 10. How often should you get a new toothbrush? 11. What is the purpose of toothbrushing and flossing? 12. What are the goals of gum diseases treatment?

Ex.12. Insert prepositions where necessary (by, between, of, in, around, on) and translate:

Gingivitis is an irritation ____ the gums. It is usually caused ____ bacterial plaque that accumulates ____ the small gaps _____ the gums and the teeth and by calculus (tartar) that forms ____ the teeth. These accumulations may be tiny, even microscopic, but the bacteria in them produce foreign chemicals and

toxins that cause inflammation __ the gums _____ the teeth. This inflammation can, over the years, cause deep pockets _____ the teeth and gums and loss of bone _____ teeth—an effect otherwise known as periodontitis.

Ex. 13. Complete the following sentences and translate:

Gingival diseases are classified into two _____: dental plaque induced gingival diseases and non-plaque induced _____ lesions. Dental plaque induced gingival diseases is the most _____ form of gingival disease. Plaque-induced gingivitis may _____ on a periodontium with no attachment loss. Gingivitis associated with dental _____ only is the result of an interaction between the microorganisms found in the dental plaque and the tissues and inflammatory _____. Non plaque induced gingival lesions are oral manifestations of systemic conditions that produce lesions in the _____ without plaque formation. Gingival diseases of specific bacterial origin have become increasingly prevalent as a result of sexually transmitted _____. Gingival diseases of viral origin may be caused by DNA and RNA _____ for example herpes. Allergy to certain restorative materials, toothpastes, _____, etc. has also been shown to cause _____ in the absence of plaque.

gingival, categories, occur, diseases, common, plaque, cells, tissues, viruses, gingivitis, mouthwashes

Ex.14. Translate Ukrainian words in brackets into English:

The (симптоми) of gingivitis are as follows: swollen (ясна); mouth sores; bright-red, or purple gums; shiny gums; swollen gums that emit (гній); severe oral odor; gums that are (безболісний), except when (тиск) is applied; gums that (кровоточити) easily, (навіть) with gentle brushing, and especially when (чищення зубною ниткою); gums that itch with varying (ступені) of severity. (Гінгівіт) can be prevented through (регулярний) oral (гігієна) that includes (щоденний) brushing and flossing. Mouth wash is optional, (зазвичай) using a saline (розчин) (water and salt) only by prescription.

It is recommended that a dental (гігієніст) or dentist be seen after the (ознаки) of gingivitis appear. A dental hygienist or dentist will (перевіряти) for the symptoms of gingivitis, and may also (оглядати) the amount of (наліт) in the oral (порожнина). A dental hygienist or dentist will (також) look for signs of periodontitis using (рентген) or periodontal probing as well as (інші) methods.

Ex.15. Read the following text and entitle it:

Periodontal diseases are often classified according to their severity. They range from mild gingivitis, to more severe periodontitis, and more uncommon but serious acute necrotizing ulcerative gingivitis, which can be life-threatening.

Gingivitis is an inflammatory process limited to the mucosal epithelial tissue surrounding the cervical portion of the teeth and the alveolar processes. Gingivitis has been classified by clinical appearance (eg, ulcerative, hemorrhagic, necrotizing, purulent), etiology (eg, drug-induced, hormonal, nutritional, infectious, plaque-induced), and duration (acute, chronic). The most common type of gingivitis is a chronic form induced by plaque.

The direct cause of gingivitis is plaque - the soft, sticky, colorless film of bacteria that forms constantly on the teeth and gums. If the plaque is not removed by daily brushing and flossing, it produces toxins (poisons) that can irritate the gum tissue, causing gingivitis. At this early stage in gum disease, damage can be reversed, since the bone and connective tissue that hold the teeth in place are

not yet affected. Left untreated, however, gingivitis can become periodontitis and cause permanent damage to your teeth and jaw.

Classic signs and symptoms of gingivitis include red, swollen, tender gums that may bleed when you brush. Another sign of gum disease is gums that have receded or pulled away from your teeth, giving your teeth an elongated appearance. Gum disease can cause pockets to form between the teeth and gums, where plaque and food debris collect. Some people may experience recurring bad breath or a bad taste in their mouth, even if the disease is not advanced.

Periodontitis is defined as an inflammatory disease of the supporting tissues resulting in progressive destruction of the periodontal ligament and alveolar bone with pocket formation, recession or both. Three main categories exist: chronic periodontitis, aggressive periodontitis, and periodontitis as a manifestation of systemic diseases. Minor classifications include necrotizing periodontal disease, abscesses and periodontal disease due to other factors. Chronic periodontitis is the most common form of periodontitis. It is most prevalent in adults but can occur in children. It can also be modified by systemic disease such as HIV, diabetes as well as local factors such as smoking.

Aggressive periodontitis is otherwise seen in a clinically healthy patient. Rapid attachment loss and bone destruction are present.

Periodontitis as a manifestation of systemic diseases can be seen in hematologic, genetic and other non-specified conditions.

Symptoms of periodontitis may include the following:

- Occasional redness or bleeding of gums while brushing teeth, using dental floss or biting into hard food
- Occasional gum swellings that recurs
- Halitosis, or bad breath, and a persistent metallic taste in the mouth
- Gingival recession, resulting in apparent lengthening of teeth.
- Deep pockets between the teeth and the gums
- Loose teeth (in the later stages)

Patients should realize that the gingival inflammation and bone destruction are largely painless. Hence, people may wrongly assume that painless bleeding after teeth cleaning is insignificant, although this may be a symptom of progressing periodontitis in that patient.

Notes:

recession [rɪ'seʃn] заглиблення

hematologic [ˈhi:məˌtɒlədʒɪk] гематологічний

aggressive [əˈɡresɪv] корозійний

halitosis [ˈhæliˈtɒsɪs] неприємний запах з рота

necrotizing [ˈnekrətaɪzɪŋ] некротичний

HIV (Human Immunodeficiency Virus) ВІЛ

Ex.16. Insert the words given below and translate:

Periodontitis refers to a number of _____ diseases affecting the periodontium — that is, the tissues that surround and _____ the teeth. Periodontitis involves progressive _____ of the _____ bone around the teeth, and if left untreated, can lead to the loosening and subsequent loss of _____. Periodontitis is caused by _____ that adhere to and grow on the tooth's _____, along with an overly aggressive immune response against these bacteria. A diagnosis of periodontitis is established by inspecting the soft gum _____ around the teeth with a probe and radiographs by visual _____, to determine the amount of bone loss around the teeth.

Ex.17. Speak on the types of periodontal diseases.

Ex.18. Make up a dialogue on types of periodontal diseases.

Overview

Periodontal (gum) diseases are infections of the gums and bone that surround and support the teeth. The direct cause of periodontal diseases is plaque - the soft, sticky, colorless film of bacteria that forms constantly on the teeth and gums. The following are warning signs of periodontal disease: bad breath, red or swollen gums, tender or bleeding gums, painful chewing, loose teeth, sensitive teeth. Periodontal diseases are often classified according to their severity. They range from mild gingivitis, to more severe periodontitis, and more uncommon but serious acute necrotizing ulcerative gingivitis, which can be life-threatening. The goals of gum disease treatment are to promote reattachment of healthy gums to teeth; reduce swelling, the depth of pockets, and the risk of infection; and to stop disease progression. Good oral hygiene prevents periodontal disease. Brush the teeth at least twice every day, get a new toothbrush every 3 months, use a toothpaste that contains fluoride. Eat a well-balanced diet.

Lesson 10

Oral candidiasis

VOCABULARY

candidiasis \ ['kændɪq'dalɪqsɪs] - кандидоз

yeast [ji:st]- дріжджі

fungi ['fʌŋgəl, 'fʌndʒaɪ] - (МН. від *fungus*) - гриби

opportunistic [Opɔtju'nɪstɪk] - умовно-патогенний

thrush [Trʌs]- пліснявка

denture ['den(t)ʃɪ] - зубний протез

lining ['laɪnɪŋ] - слизова оболонка

persist [pə'sɪst] – тривати, утримуватися

occur [q'kɜ:] - траплятися, виникати

Candida albicans ['kændɪdɪ 'xlbɪlkəns]- Кандіда біліюча — диплоїдний грибок (форма дріжджоподібних грибів)

diabetes ['dalq'bi:tɪz] - діабет

severe [sl'vɪq] – складний, серйозний

encourage [ɪn'kʌrɪdʒ] – стимулювати, провокувати

suppress [sə'pres] стримувати, пригнічувати

confirm [kən'fɜ:m] підтверджувати

reveal [rɪ'vi:l] - виявляти

increase [ɪn'kri:s] – зростати

fever [fɪ:və] - жар, лихоманка

HIV (Human Immunodeficiency Virus) – ВІЛ (Вірус Імунодефіциту Людини)

AIDS (Acquired Immunodeficiency Syndrome) – СНІД (Синдром набутого імунодефіциту)

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

Prefixes and term-elements:

over-

overstrain *перенапруження*

para- (near, beside; abnormal)

paracystic *приміхуровий, такий, що розміщений біля міхура*

parafunction *парафункція, порушена або аномальна функція*

per- (through)

pernasal *черезносовий, такий, що виконується через ніс*

poly- (many)

polymelia полімерія, потологія розвитку, що характеризується наявністю зайвих кінцівок

Ex. 2. Read and translate the following words:

A. Overweight; overgrowth; overestimate; overdose; overeating; overactivity; overabundance; overproduction.

B. Parathyroid; paralysis; paranasal; parafollicular.

C. Percutaneous; peroxide; permeable; perpendicular.

D. Polymorphonuclear; polyneuritis; polypeptide; polyclinic.

GRAMMAR:

Ex. 3. Familiarize yourself with the following grammar material:

INFINITIVE AND ITS FORMS

Інфінітив – це не особова форма дієслова, яка називає дію і відповідає на запитання *що робити?*, *що зробити?*: to write – писати. Ознакою інфінітива є частка to. Інфінітив часто вживається без частки to після модальних дієслів та після деяких дієслів, що виражають сприймання за допомогою органів чуттів.

INFINITIVE	ACTIVE	PASSIVE
Indefinite	V (to write)	to be + V₃ (to be written)
Continuous	to be + V_{ing} (to be writing)	–
Perfect	to have + V₃ (to have written)	to have + been + V₃ (to have been written)

Інфінітив у формі **Indefinite** вживається: якщо дія, яку він виражає, одночасна з дією, вираженою дієсловом-присудком речення; з дієсловами, що виражають намір, надію, бажання і т.ін. **Indefinite Infinitive** може означати дію, майбутню по відношенню до дії, вираженої дієсловом-присудком:

He was the first dentist to speak to me about it.	Він був першим стоматологом, який заговорив про це зі мною.
I want to become a doctor.	Я хочу стати лікарем.
They conduct blood test to determine the amount of the hormones.	Вони виконують аналіз крові для того, щоб встановити кількість гормонів.

Інфінітив у формі **Continuous** виражає тривалу дію, що відбувається одночасно з дією, вираженою дієсловом-присудком:

It was pleasant to be performing on the operation again.	Було приємно знову проводити операцію.
He seems to be writing something.	Він, здається, щось пише.

Інфінітив у формі **Perfect** виражає дію, що передуює дії, вираженій дієсловом-присудком:

I am glad to have seen you.	Я дуже радий, що ми побачилися з вами.
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Ex. 4. Read and translate the following sentences:

1. It was very hard to pass entrance exams. 2. Cells are grouped into tissues, and each tissue type is specialized to perform specific functions. 3. Serious investigations were being done by various scientists to establish functions and anatomical structure of the stomach. 4. The bile acids are then reabsorbed in the small intestine and cycled into the liver to be used again. 5. The contraction of the muscle causes blood to be pumped. 6. To reach the lungs, air enters through the mouth and nose and then travels through the pharynx, larynx, and down trachea. 7. Unlike other organs and body parts that enable to move, breathe, eat, or sense the world around us, the endocrine system influences the body's processes. 8. The pancreas secretes the hormone insulin, which enables the body to regulate the amount of sugar in the bloodstream. 9. The hormones produced by the pancreas enable the body to break down the food you eat. 10. Muscle and fat cells are stimulated by insulin to absorb the glucose they need as fuel for their activities. 11. The anterior lobe produces six hormones, including prolactin to stimulate the production of breast milk and growth hormone to regulate the body's physical growth. 12. Antidiuretic hormone acts on the kidneys to control urine output.

Ex. 5. Find in the text “Endocrine System” sentences containing infinitives and translate them into your native language.

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

SUBJECTIVE INFINITIVE CONSTRUCTION

NOUN (Common Case)	or PRONOUN (Subjective Case)	PREDICATE	INFINITIVE	
Doctor(s) Dentist(s)	I	<i>Passive Voice</i>	Indefinite (Active)	V (to write)
	He	<i>to think (думати), to believe (думати), to know (знати),</i>	Indefinite (Passive)	to be + V₃ (to be written)
	She	<i>to suppose (вважати, допускати), to consider (вважати),</i>	Continuous (Active)	to be + V_{ing} (to be writing)
	It	<i>to see (допускати), to hear (слухати), to report (повідомляти) to say (говорити)</i>	Perfect (Active)	to have + V₃ (to have written)
Scientist(s)	You	<i>Active Voice</i>	Perfect (Passive)	to have been + V₃ (to have been written)
	We	<i>to seem (здаватися), to appear (здаватися),</i>		
	They	<i>to happen (трапляться)</i>		

Речення з суб'єктним інфінітивним комплексом на українську мову перекладаються здебільшого складно-підрядними реченнями з сполучником “що”. Переклад слід починати

з присудка, який в українській мові перетворюється на неозначено-особове або безособове головне речення. Перша частина комплексу (іменник або займенник) стає підметом підрядного речення, а інфінітив перекладається особовою формою дієслова, що стає присудком підрядного речення:

These doctors are known to be good specialists.	Відомо, що ці лікарі гарні фахівці.
She is said to treat this disease.	Кажуть, що вона лікує це захворювання.
He seems to have passed his examinations well.	Здається, він успішно здав іспити.

У якості присудка також можуть вживатися такі словосполучення: to be sure напевно, to be certain безумовно, to be likely напевно:

They are likely to return next week. Напевно, вони повернуться на наступному тижні.

Ex. 7. Read and translate the following sentences:

1. X-ray examination is considered to be very important in diagnosis. 2. He is supposed to discharge the patient from the hospital. 3. The heart is considered to have been enlarged. 4. The patient is said to become well. 5. This drug is known to give a good effect. 6. This disease is said to have a chronic course. 7. The urgent operation was supposed to have saved the patient's life. 8. The nurse seems to be very experienced. 9. The pain is considered to be caused by too hot or too cold food. 10. All drugs appear to be kept in drug cabinets. 11. Excessive smoking and alcohol consumption are known to produce mild gastritis or to aggravate existing gastritis symptoms. 12. One of the major aids in acute and chronic anemia as well as in shock, hemophilia and so on is known to be transfusion of blood. 13. The causes for hypersecretion or hyposecretion of growth hormone are known to involve tumors in the hypothalamus or the pituitary gland. 14. The most common thyroid disorders are considered to be hyperthyroidism and hypothyroidism. 15. The endocrine system was believed to be relatively independent and different from the nervous system, but a relationship between these systems is now recognized.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 8. Insert the missing letters:

Infe_tion, fun_al, thr_sh, immune_, c_emothrapy, can_er, c_ronic, les_on, ton_ue, tons_ls, appe_rance, esop_agus, dia_nosis, dent_re, solut_on.

Ex.9. Read and translate the following words and word combinations.

Lining of the mouth, fungal organism, affect, older adults, immune systems, poor health, steroid medications, common sign, inner cheeks, roof, painful, bleed slightly, severe cases, swallowing, throat, tender area, confirm the diagnosis, treatment approach, antifungal drugs, complete dentures, overnight, bleach solution, oral hygiene, kick the habit.

Ex.10. Read and translate the following text.

Oral candidiasis

Oral thrush is an opportunistic infection of the oral cavity. It affects the most superficial part of the lining of the mouth that is caused by the yeast-like fungal organism, *Candida albicans*. Because yeast infection is due to *Candida*, it is referred to as candidiasis. Thrush is known as oral candidiasis.

Candida infection is not limited to the mouth; it can occur in other parts of the body as well. Thrush can affect anyone, though it occurs most often in babies and toddlers, older adults, and people with weakened immune systems. The following factors can increase your chances of getting thrush:

- Being in poor health
- Being very old or very young
- Having an HIV infection or AIDS
- Receiving chemotherapy for cancer or drugs to suppress your immune system
- Taking steroid medications

Thrush usually develops suddenly, but it may become chronic, persisting over a long period of time. A common sign of thrush is the presence of creamy white, slightly raised lesions in your mouth - usually on your tongue or inner cheeks -- but also sometimes on the roof of your mouth, gums, tonsils, or back of your throat. The lesions, which may have a "cottage cheese" appearance, can be painful and may bleed slightly when you scrape them or brush your teeth. In severe cases, the lesions may spread into your esophagus causing:

- Pain or difficulty swallowing
- A feeling that food gets stuck in the throat or mid-chest area
- Fever, if the infection spreads beyond the esophagus

Oral candidiasis may be diagnosed based on the clinical signs and symptoms. Your dentist can diagnose thrush by examining your mouth. He or she looks for the distinctive white lesions on your mouth, tongue, or cheeks. Lightly brushing the lesions away reveals a reddened, tender area that may bleed slightly. A microscopic examination of tissue from a lesion can confirm the diagnosis.

Your dentist will have a specific treatment approach designed for you based on your age and the cause of the infection. Several good antifungal drugs are available for treating this infection. Some can be taken as a daily pill that is swallowed, while others are used as a mouth rinse or lozenge that is dissolved in the mouth four or five times daily. For people who wear complete dentures, the dentures must be disinfected by soaking them overnight, each night, for one week using a mild bleach solution.

The following can help you prevent thrush:

- Follow good oral hygiene practices. Brush your teeth at least twice a day and floss at least once a day.
- Avoid mouthwashes or sprays. These products can destroy the normal balance of microorganisms in your mouth.
- See your dentist regularly. Especially if you have diabetes or wear dentures.
- Limit the amount of sugar and yeast-containing foods you eat. Foods such as bread, beer, and wine encourage candida growth.
- If you smoke, quit. Ask your doctor or dentist about ways to help you kick the habit.

Ex.11. Translate into English:

Слизова оболонка ротової порожнини, дріжджі, вражати будь-кого, ослаблена імунна система, протигрибкові препарати, слабе здоров'я, раптово, склепіння ротової порожнини, тривати довгий час, злегка кровоточити, складні випадки захворювання, поширюватися, клінічні ознаки, підтвердити діагноз, причина інфекції, ополіскував ротової порожнини, таблетки для розсмоктування, відбілюючий розчин, чистити зубною ниткою, носити протези .

Ex.12. Answer the following questions:

1. What is oral candidiasis? 2. What kind of organism is oral thrush caused by? 3. Who gets oral candidiasis? 4. What factors can increase your chances of getting thrush? 5. What are the commonest signs of thrush? 6. How do doctors diagnose oral candidiasis? 7. How is oral candidiasis treated? 8. What can help you prevent thrush?

Ex.13. Insert the missing prepositions (of, from, in, with, for):

Thrush is commonly seen ... infants. It is not considered abnormal in infants unless it lasts longer than a couple ... weeks. People who have diabetes and have high blood sugar levels are more likely to get thrush ... the mouth because the extra sugar ... your saliva acts like food ... Candida. Taking high doses ... antibiotics or taking antibiotics ... a long time also increases the risk of oral thrush. Antibiotics kill some of the healthy bacteria that help keep Candida ... growing too much. People ... poorly fitting dentures are also more likely to get thrush.

Ex. 14. Find and write out sentences with modal verbs from the text “Oral candidiasis” and make them interrogative.

Pattern: Candida infection **can** occur in other parts of the body.

Can Candida infection occur in other parts of the body?

What parts of the body **can** Candida infection occur?

What kind of infection **can** occur in other parts of the body?

Candida infection **can** occur in other parts of the body, can't it? etc.

Ex.15. Read the following text, divide it into logical parts and try to retell:

Oral Thrush in Children

Oral thrush in a child produces a yeast infection in the mouth and throat. A thrush infection is normally found in infants and young children, but it will also occur in older children and adults diagnosed with diseases that affect the immune system. A child older than 3 who develops an oral thrush infection with no apparent underlying cause should be tested by a doctor.

Thrush is a yeast infection caused by the Candida fungus. A thrush infection is normally found in the warm, moist areas of the mouth and vagina of a child. The Candida yeast is the same fungus that causes a yeast infection in women and diaper rash in children. Thrush is not a contagious infection and affects anyone with a lowered immune system. This is the reason young children and older adults are susceptible.

A thrush infection creates cracking at the corners of the mouth with white sores throughout the mouth. The sores show up on the tongue, inside of the cheeks and sometimes on the gums and tonsils. The sores appear to be creamy and will bleed slightly if scraped or rubbed. A nursing infant will not want to feed, because the sores are painful. While thrush is not contagious, it is possible for a child to pass the infection to the breast of the nursing mother. The mother's nipples will appear red and sensitive and hurt during and after nursing. The areola may flake or appear shiny. Stabbing pain in the breast is common with an infection.

The fungus that causes thrush is common in the body and environment. A thrush infection occurs when the immune system becomes weak due to an illness or by taking medications such as antibiotics. An infant may be exposed to the yeast during a vaginal delivery, because the yeast is present in the vagina. Close contact with family members will also introduce the yeast to an infant or child. The yeast waits in the body for the immune system to weaken.

Medical treatment is not always needed for children who are eating food. Many children respond to adding foods that balance bacteria and yeast in the body and mouth. This includes yogurt, buttermilk and sour cream. A nursing infant or child with an infection that does not heal will be given an antifungal medication. A mother who is breast feeding will also be treated to prevent the infection from passing back and forth.

It is rare that complications occur from a thrush infection. The infection may return when the immune system is weakened, but it is treatable. Children who suck their thumbs may get a thrush or Candida infection around the fingernail.

Ex.16. Read the following information and compose the dialogue between the breastfeeding mother and health care professional:

Advice for breastfeeding mothers

If your baby has oral thrush and you're breastfeeding, it's possible for your baby to pass a thrush infection to you. This can affect your nipples or breasts and is known as nipple thrush.

Symptoms of nipple thrush include: pain while you're feeding your baby, which may continue after the feed is finished cracked, flaky or sensitive nipples and areolas (the darker area around your nipple).

You may be prescribed an antifungal cream, such as miconazole. You should apply the cream to your nipples after every feed, and remove any that's left before the next feed.

Antifungal tablets may be recommended for severe nipple thrush.

Ex.17. Insert the missing words given below:

1. Oral thrush is a _____ infection that happens in and around the _____. 2. It's very _____ in the first year of life, and isn't usually anything to _____ about. 3. Sometimes it doesn't even make babies _____. 4. Thrush can _____ in the throat, _____ and lining of the mouth. 5. Your baby might also _____ oral thrush if he sucks on objects already _____ with thrush, such as nipples or dummies. 6. Thrush can also be picked up when a _____ passes through her mother's vagina _____ birth. 7. Children with a weak _____ system are more likely _____ thrush infections. 8. But if your baby has thrush, it doesn't necessarily mean he has a _____ immune system. 9. Oral thrush doesn't _____ between children.

Uncomfortable, fungal, mouth, occur, immune, common, weak, worry, to get, tongue, develop, infected, baby, during, spread

Overview

Oral thrush is an opportunistic infection of the oral cavity. It is caused by the yeast-like fungal organism, *Candida albicans*. It occurs most often in babies and toddlers, older adults, and people with weakened immune systems. A common sign of thrush is the presence of creamy white, slightly raised lesions in your mouth but also sometimes on the roof of your mouth, gums, tonsils, or back of your throat. Oral candidiasis may be diagnosed based on the clinical signs and symptoms. Oral candidiasis can be treated with topical anti-fungal drugs.

**Lesson 11
Oral cancer**

VOCABULARY

cancer ['kænsə] рак

tumor ['tju:mə] пухлина

benign [bɛq'nəɪn] доброякісний

malignant [mɔ'lɪɡnənt] злоякісний

to invade [ɪn'veɪd] вторгатися

patch [pætʃ] пляма, бляшка, клаптик

nearby ['ni:əbaɪ] сусідній, близький

numbness ['nʌmənəs] затерпільсть, оніміння

to spread [sprɛd] поширювати(ся)

sore throat [ˈtrɒt] біль у горлі

threat [ˈTret] загроза

metastasis [mɪˈtɛstəzɪs] метастаз

node [nɒd] вузол

sore [sɔː] рана, болячка, виразка

to heal [hiːl] загоювати(ся)

lump [lʌmp] шматочок

to remove [rɪˈmuːv] видаляти

bloodstream [ˈblʌdstriːm] кровотік

to carry [ˈkæri] нести, переносити

to fight [faɪt] боротися

bean-shaped [ˈbiːnʃeɪpt] бобоподібний

bleeding [ˈbliːdɪŋ] кровотеча

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

Prefixes and term-elements:

post- (after, behind)

postaxial *заосьовий*

pre- (before, in front of)

prerenal *переднирковий, преренальний*

Ex. 2. Read and translate the following words:

A. Postnatal; postoperative; postpone; post-graduate.

B. Preclinical; premedical; precancerous; premolar; preexisting; preposition; preceding; prescribe.

GRAMMAR:

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

OBJECTIVE INFINITIVE CONSTRUCTION

NOUN (Common Case)	or PRONOUN (Objective Case)	INFINITIVE	
Doctor(s) Student(s)	me (<i>тут: я</i>)	Indefinite (Active)	V (to write)
	him (<i>тут: он</i>)	Indefinite (Passive)	to be + V₃ (to be written)
	her (<i>тут: она</i>)		
	it (<i>тут: он, она, оно</i>)	Continuous (Active)	to be + V_{ing} (to be writing)
	us (<i>тут: мы</i>)		
	you (<i>тут: ты, вы</i>)	Perfect (Active)	to have + V₃ (to have written)
	them (<i>тут: они</i>)	Perfect (Passive)	to have + been + V₃ (to have been written)

На українську мову об'єктний інфінітивний комплекс перекладається здебільшого підрядним додатковим реченням. Перша частина комплексу відповідає підмету підрядного речення, а друга частина – присудку.

Об'єктний інфінітивний комплекс вживається після певних груп дієслів:

1. Що виражають бажання, намір, почуття: to want – хотіти; to wish – бажати; to desire – бажати; should/would like – хотів/ла би; to hate – ненавидіти; to intend – мати намір та ін.	He wanted us to go to the clinic. Він хотів, щоб ми пішли до клініки.
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<p>2. Що виражають думку (погляд), припущення, сподівання: to expect – сподіватися; to think – думати; to believe – вважати; to suppose – припускати; to consider – вважати; to find – знаходити; to know – знати та ін.</p>	<p>We think her to have worked at this hospital. Ми думаємо, що вона працювала в цій лікарні. She considers him to be the best surgeon. Вона вважає його кращим хірургом.</p>
<p>3. Що виражають наказ, прохання, дозвіл, пораду, примус: to ask – просити; to order – наказувати; to allow – дозволяти; to request – просити; to permit – дозволяти; to advice – радити, рекомендувати; to recommend – рекомендувати; to cause – примушувати; to force – примушувати; to make – примушувати; to let – дозволяти. (Після дієслів to make і to let інфінітив вживається без частки to).</p>	<p>The teacher allowed us to use dictionaries. Вчитель дозволив нам користуватися словниками. The doctor made the patient lie down. Лікар примусив хворого лягти.</p>
<p>4. Що виражають сприймання за допомогою органів чуттів: (після цих дієслів інфінітив вживається без частки to): to see – бачити; to hear – чути; to feel – відчувати; to watch – спостерігати; to observe – спостерігати; to notice – відзначати.</p>	<p>I felt the pain become less. Я відчула, що біль зменшився. I heard her call my name. Я почув, що вона покликала мене.</p>

Ex. 4. Read and translate the following sentences:

1. I want my sister to follow a bed regimen. 2. The nurse saw the surgeon enter the operating room. 3. The patient felt the pain decrease. 4. The students watched the doctor examine the patient. 5. The professor expects (позраховувати) the assistant to finish his scientific work ahead of time. 6. We know him to be skilled surgeon. 7. I want you to rewrite the case history. 8. The doctor recommended the room of the patient to be aired every two hours. 9. The nurse heard the patient talk at night. 10. Physicians consider the diabetes mellitus to occur mainly as a result of inadequate secretion of insulin.

READING AND DEVELOPING SPEAKING SKILLS

Ex.5. Insert the missing letters:

Can_er, beni_n, t_mor, mal_gnant, spr_ad, blo_dstream, bleed_ng, c_ll, dis_ase, div_de, tiss_e, lymp_, n_de, mo_th, thro_t, l_p.

Ex.6. Translate the following word-combinations into Ukrainian:

Divide without control, kinds of cells, keep healthy, extra tissue, benign tumors, threat to life, nearby tissues, malignant tumor, lymphatic system, watery fluid, fight infection and disease, bean-shaped organs, as early as possible.

Ex.7. Read and translate the following word-combinations:

divide – to be divided into, divide without order, divide without control, the head is divided into cranial and facial parts, tumors are divided into benign and malignant, divide in an orderly way;

oral – oral cavity, oral diseases, oral cancer, oral examination, oral medicines, oral surgery, oral vestibule, oral mucosa, oral solution, oral hygiene, oral bleeding;

need – to be needed, when the body needs more cells, when new cells are not needed.

tissue – connective tissue, nervous tissue, muscular tissue, too much tissue, extra tissue, to invade other tissues, nearby tissues.

Ex. 8. Read and translate the following text:

Oral Cancer

Cancer is a group of diseases. It occurs when cells become abnormal and divide without control or order. More than 100 different types of cancer are known. Like all organs of the body, the mouth and throat are made up of many kinds of cells. Cells are normally divided in an orderly way to produce more cells only when the body needs them. This process helps keep the body healthy.

Cells that divide when new cells are not needed form too much tissue. The mass of extra tissue, called a tumor, can be benign or malignant.

- Benign tumors are not cancer. They can usually be removed, and in most cases, they don't grow back. Most important, the cells in benign tumors do not invade other tissues and do not spread to other parts of the body. Benign tumors usually are not a threat to life.

- Malignant tumors are cancer. They can invade and damage nearby tissues and organs. Also, cancer cells can break away from a malignant tumor and enter the bloodstream or the lymphatic system. This is how cancer spreads and forms secondary tumors in other parts of the body. The spread of cancer is called metastasis.

When oral cancer spreads, it usually travels through the lymphatic system. Cancer cells that enter the lymphatic system are carried along by lymph, an almost colorless, watery fluid containing cells that help the body fight infection and disease. Along the lymphatic channels are groups of small, bean-shaped organs called lymph nodes. Oral cancer that spreads usually travels to the lymph nodes in the neck. It can also spread to other parts of the body. Cancer that spreads is the same disease and has the same name as the original (primary) cancer.

Oral cancer usually occurs in people over the age of 45 but can develop at any age. These are some symptoms to watch for:

- A sore on the lip or in the mouth that does not heal;
- A lump on the lip or in the mouth or throat;
- A white or red patch on the gums, tongue, or lining of the mouth;
- Unusual bleeding, pain, or numbness in the mouth;
- A sore throat, that does not go away, or a feeling that something is caught in the throat;
- Difficulty or pain with chewing or swallowing;
- Swelling of the jaw that causes dentures to fit poorly or become uncomfortable;
- A change in the voice;
- Pain in the ear.

These symptoms may be caused by cancer or by other, less serious problems. It is important to see a dentist or doctor about any symptoms like these, so that the problem can be diagnosed and treated as early as possible.

Ex. 9. Find in the text the equivalents for the following words and word-combinations:

Біль при жуванні, якомога раніше, у будь-якому віці, слизова оболонка рота, поширюватись на інші частини тіла, потрапляти у кровотік, переноситись по лімфатичній системі, загроза життю,

утворювати вторинні пухлини, поширення ракового захворювання, боротися з хворобою, лімфатичні вузли, бути спричиненим раковим чи іншим захворюванням.

Ex.10. Answer the following questions:

1. When does cancer occur? 2. What is a tumor? 3. What kinds of tumors do you know? 4. What is the difference between benign and malignant tumors?
5. How does cancer spread and form secondary tumors in other parts of the body? 6. How is the spread of cancer called? 7. What kind of fluid is lymph? 8. What are lymph nodes? 9. What age does oral cancer usually occur? 10. What are oral cancer symptoms?

Ex.11. Insert the missing words given below:

If an abnormal area has been found in the oral _____, a biopsy is the only way to know whether it is _____. Usually, the patient is referred to an oral surgeon or an ear, nose, and throat surgeon, who _____ part or all of the lump or abnormal-looking area. A pathologist _____ the tissue under a microscope to check for cancer _____. If the _____ finds oral cancer, the patient's doctor needs to know the stage, or extent, of the _____ in order to plan the best _____. Staging tests and exams _____ the doctor find out whether the cancer has spread and what parts of the body are _____.

disease, cavity, help, cells, cancer, removes, pathologist, affected, examines, treatment.
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Ex.12. Read, translate and entitle the following text:

After diagnosis and staging, the doctor develops a treatment plan to fit each patient's needs. Treatment for oral cancer depends on a number of factors. Among these are the location, size, type, and extent of the tumor and the stage of the disease. The doctor also considers the patient's age and general health. Treatment involves surgery, radiation therapy, or, in many cases, a combination of the two. Some patients receive chemotherapy, treatment with anticancer drugs.

For most patients, it is important to have a complete dental exam before cancer treatment begins. Because cancer treatment may make the mouth sensitive and more easily infected, doctors often advise patients to have any needed dental work done before treatment begins.

Patients with oral cancer may be treated by a team of specialists. The medical team may include an oral surgeon; an ear, nose, and throat surgeon; a medical oncologist; a radiation oncologist; a prosthodontist; a general dentist; a plastic surgeon; a dietitian; a social worker; a nurse; and a speech therapist.

Surgery to remove the tumor in the mouth is the usual treatment for patients with oral cancer.

Radiation therapy (also called radiotherapy) is the use of high-energy rays to damage cancer cells and stop them from growing. Like surgery, radiation therapy is local therapy; it affects only the cells in the treated area.

Implant radiation therapy puts tiny "seeds" containing radioactive material directly into the tumor or in tissue near it. Generally, an implant is left in place for several days, and the patient will stay in the hospital in a private room. The implant is removed before the patient goes home.

Chemotherapy is the use of drugs to kill cancer cells. Researchers are looking for effective drugs or drug combinations to treat oral cancer. They are also exploring ways to combine chemotherapy with other forms of cancer treatment to help destroy the tumor and prevent the disease from spreading.

Overview

Cancer is a group of diseases. It occurs when cells become abnormal and divide without control or order. When oral cancer spreads, it usually travels through the lymphatic system. Oral cancer usually occurs in people over the age of 45 but can develop at any age. These are some symptoms of oral cancer: a sore on the lip or in the mouth that does not heal; a lump on the lip or in the mouth or throat; unusual bleeding, pain, or numbness in the mouth; difficulty or pain with chewing or swallowing and others. Oral cancer can be treated by surgery, radiation therapy, implant radiation therapy, chemotherapy.

Lesson 12 Halitosis

VOCABULARY

halitosis [ˈhæliˈtəʊsɪs] галітоз

odor [ˈəʊd(ə)] запах

exhale [eksˈheɪl], [ɪks-] видихати

breath [breθ] дихання

breathe [briːð] дихати

coating [ˈkəʊtɪŋ] покриття, наліт

sulphur [ˈsʌlfə] сірка

break down [ˈbreɪk ˈdaʊn] розщеплювати

contribute [kənˈtrɪbjʊ:t], [ˈkɒntrɪbjʊ:t] сприяти

rot [rɒt] гнити, псуватися

foul [faʊl] той, що неприємно пахне, брудний

xerostomia [ˈzerəˈstəʊmiə] ксеростомія (сухість у роті)

protein [ˈprəʊtɪn] білок, протеїн

exacerbate [ɪgˈzæsəbeɪt], [eg-] загострювати, погіршувати

WORD-BUILDING COMPOUND WORDS

Ex. 1. Familiarize yourself with the following material:

head *голова* + ache *біль* = headache *головний біль*

Ex. 2. Read and translate the following words:

Textbook; homework; stomachache; toothache; gallbladder; cheekbone; eyebrow.

GRAMMAR: VERBAL NOUN

V + -ing

Ex. 3. Read and translate the following sentences paying attention to the verbal nouns:

1. **The reading** of this article is necessary. 2. **The using** of this method has been known for over 152 years. 3. What are **the readings** of this device? 4. **The bleeding** was severe. 5. **The remodeling** is responsible for the formation of new osteons in compact bone. 6. The prominent **openings** into the skull are orbits and the nasal cavity.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 4. Read VOCABULARY and memorize new words.

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

Ex.6. Insert the missing letters:

Br_ath, dent_re, ba_teria, he_lth, l_ngs, brus_ing, flo_sing, te_eth, gu_s, ton_ue, tas_e, mo_th, di_ease, s_mptom, sal_va, gl_nd, p_ysician, res_iratory, sinus_tis, di_order.

Ex.7. Read and translate the following words and word combinations:

Health condition, condition, cause, certain foods, contribute, garlic, onions, bloodstream, poor oral healthcare, routine examinations, taste, improper cleaning, dentures, food particles, primary symptoms, immediate care, saliva production, remove debris.

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

Halitosis is an oral health condition characterized by consistently bad breath. The bad smell is usually caused by chemical molecules containing sulphur. These are produced when bacteria that live in the mouth break down protein in the diet. There are just as many causes of bad breath as there are sources of bacteria in the mouth. Halitosis may be caused by certain foods, poor oral healthcare, improper cleaning of dentures, periodontal disease, xerostomia (dry mouth), tobacco products, certain medical disorders etc.

Diet. When a person does not brush or floss their teeth thoroughly, food particles may remain in the mouth. These particles may rot and cause foul odors. In addition, food particles over time can promote the growth of bacteria, which can also cause foul odors. The bacteria can also lead to tooth decay and gum disease. Foods with strong odors also affect the air a person exhales. Foods commonly known to contribute to bad breath include onions and garlic, exotic spices (such as curry), some cheeses, fish, and acidic beverages such as coffee. Foods are absorbed into the bloodstream and then transferred to the lungs, causing noticeable odors when exhaled.

Dry mouth. Bad breath can also be caused by decreased flow of saliva, which is a vital part of the digestive process and removes odor-causing particles in the mouth. Also called xerostomia, dry mouth may be caused by medications, breathing through the mouth, or salivary gland problems.

Tobacco products. In addition to causing bad breath, smoking or chewing tobacco-based products can stain teeth, irritate gum tissue, and exacerbate tooth decay.

Medical disorders. Certain medical disorders may cause bad breath, for example: gum or periodontal infection, throat infection (pharyngitis or tonsillitis), local infection in the respiratory tract, chronic sinusitis, chronic bronchitis, diabetes, liver or kidney disease, etc.

Dentures or dental appliances. Dentures or dental appliances, such as braces, can contribute to bad breath. Most often it is due to food particles that are not properly cleansed from the appliances. Loose-fitting dentures can contribute to sores and localized infections in the mouth, which can cause bad breath.

Morning breath. Overnight, bacteria accumulate in the mouth, causing bad breath that is commonly referred to as 'morning breath.' Some people breathe through their mouth at night, which can cause dry mouth and worsen morning breath.

Many individuals with bad breath may be unaware they have it, or their symptoms may only be temporary. The odor often depends upon the source or underlying cause of the bad breath. Some common symptoms of bad breath include: bad breath smell, bad taste or taste changes, dry mouth, and a coating on the tongue.

Specific treatment for halitosis will be determined by your physician or dentist based on health of your mouth; cause or origin of the condition; extent of the condition; your tolerance for specific medications, procedures, or therapies; your opinion or preference.

Ex.9. Find in the text the equivalents for the following words and word-combinations:

Джерело бактерій, часточки їжі, тимчасовий, слина, слинні залози, розлад кишково-шлункового тракту, процес травлення, неприємний присмак, сухість у роті, походження, уподобання,

виразки у роті, погіршувати, інфекція горла, найпоширеніші симптоми, всмоктуватися у кровотік, ретельно чистити зуби зубною щіткою, залежати від, наліт на язиці.

Ex.10. Answer the following questions:

1. What is the scientific name for bad breath? Give definition for halitosis. 2. What is the bad smell usually caused by? 3. What are the possible causes of halitosis? 4. Do foods with strong odors affect the breath? If yes, explain how. 5. What food items contributing to bad breath do you know? 6. How can decreased flow of saliva cause bad breath? 7. What kinds of medical disorders may cause bad breath? 8. What can breathing through the mouth at night lead to? 9. What are the most common symptoms of bad breath? 10. Who can prescribe specific treatment for halitosis? 11. What is the treatment for halitosis based on?

Ex.11. Insert the missing words:

1. The odor often depends upon the _____ or underlying cause of the bad breath. 2. Bad breath can also be caused by decreased flow of _____. 3. When a person does not brush or floss their teeth thoroughly, food _____ may remain in the mouth. 4. Certain medical _____ may cause bad breath. 5. Foods with strong _____ also affect the air a person exhales. 6. Halitosis is an oral health _____ characterized by consistently bad breath.

Ex.12. Insert the missing prepositions (of, for, by, on, against):

The most widely-known reason to clean the tongue is ... the control ... bad breath. Methods used ... bad breath, such as mints, mouth sprays, mouthwash or gum, may only temporarily mask the odors created ... the bacteria ... the tongue, but cannot cure bad breath because they do not remove the source ... the bad breath. In order to prevent the production ... the sulfur-containing compounds mentioned above, the bacteria ... the tongue must be removed, as must the decaying food debris present on the rear areas of the tongue. Most people who clean their tongue use a tongue cleaner (tongue scraper), or a toothbrush.

Ex.13. Supply the necessary words given below: Most of us have bad breath in the morning, but that issue can be prevented by proper oral hygiene.

Tooth decay and _____ disease are the main causes of _____ breath. Make sure you have regular dental _____ and see a dental _____. Brush your teeth _____ a day and after meals with a toothpaste that inhibits _____, and try using a _____. Look for mouthwashes that _____ oil and water components, which may be more _____ because bacteria and sulphide compounds are more easily dissolved in oil than water. Smoking is one of the most common _____ of bad breath, especially because it can lead to gum _____. Stop _____ if possible.

- a) hygienist
- b) gum
- c) check-ups
- d) bad
- e) bacteria
- f) twice

- g) combine
- h) mouthwash
- i) effective
- j) smoking
- k) disease
- l) causes

Ex.14. Read the following text and entitle it.

If you can follow some simple steps you can prevent or reduce the bad breath in your mouth. So here they are:

Oral hygiene

We must keep in mind that every time we eat we are exposed to the bacteria in our mouth. After we eat we have to brush our teeth or at least gargle with warm water. The brushing though is essential and at least twice a day: in the morning and in the evening.

How do we brush our teeth?

You do not have to brush your teeth after every meal: it can damage the enamel. You just have to brush normally, paying attention to the direction of brushing. You should brush your upper teeth in a downward direction and the lower ones in the upward direction, followed by the brushing of the crown of the teeth (in anterior and posterior direction). This must be applied to both inner and outer surfaces, as well as to upper and lower set of teeth. You should choose a dental brush which has smooth but hard enough bristles in order to clean effectively the food remains between the teeth.

Cleaning of our tongue

The tongue can be cleaned with a tongue cleaner. In the morning we can see a white or yellowish layer on the tongue and it can be removed with tongue cleaner but ensure that you do it gently, not to hurt the taste buds.

Tooth picks

We can use the tooth pick after every meal, especially after eating meat or fish. It is a small strip of plastic or wood with pointed ends and we can successfully use it to remove food remains between the teeth, but carefully, not to hurt the gums.

Gargling

Gargling is very effective after every meal, with warm water. You can find in all stores a variety of mouth wash, with different flavors or you can make your own mouth wash from water and common salt. Both help you get rid of the bad breath.

Food can influence our breath

What we eat is representative for our bad breath. Some food, like meat, milk, eggs contain proteins that in reaction with the bacteria from the tongue can produce bad breath. Other food items have themselves an unpleasant smell. If we do not clean properly our teeth in between the gaps, the food remains will soon get an unpleasant odor. Regular meals and proper cleaning can prevent bad breath.

Proper hydration with water

The quantity of water that we drink also influences bad breath. If the quantity of saliva is enough to keep the mouth moist, the bacteria will be reduced. If we do not drink enough water, the saliva will not be enough, causing the dryness of the mouth proper to the development of bacteria who gives us the bad breath.

Natural or artificial mouth fresheners?

We can choose from a large variety of mouth fresheners, both artificial and natural. It is better that you use some natural mouth fresheners because they are good for your general health and bad breath (citrus fruits, apples, parsley). If you do not have any natural mouth refreshments there are always the chewing gums and artificial mouth washes, which you can find in every store, but use them carefully because an intensive use of chewing gum can lead to other health complications.

Ex.15. Speak on halitosis prevention.

Ex.16. Compose the dialogue on halitosis treatment.

Ex.17. Make up the sentences using the following words and word-combinations:

1. things/ caused /Bad breath /can/ by/ many /be. 2. for/ common /One /gingivitis /of/ is /the most /causes/ breath /chronic /issues. 3. bacteria /halitosis /The same/ that /cause /also/ gingivitis/ cause. 4. mouthwash/ people/ Many/ use/ as part of/ regimen/ morning/ their. 5. freshen /Mouthwash /helps to/ by/ the breath/ the smell/ masking/ the mouth /and /rinsing. 6. A/ bacteria /good /and /causes /mouthwash /kills/ that/ gingivitis /halitosis. 7. the right cure/ your/Periodontists / can/ for /issue /prescribe.

Ex.18. Translate into English:

1. Неприємний запах з рота – це досить поширене захворювання ротової порожнини. 2. Основною й безпосередньою причиною галітозу є дисбаланс мікрофлори ротової порожнини. 3. Ви можете уникнути галітозу. Починайте кожен день з основної гігієнічної процедури – чищення зубів зубною щіткою. 4. Чистіть зуби не менше двох хвилин. 5. Намагайтеся регулярно користуватися зубною ниткою та щіткою для чищення язика. 6. Щітки для видалення нальоту з язика можна придбати у аптеці. Це досить ефективний засіб. 7. Зубна нитка допомагає видалити з міжзубних проміжків залишки їжі, якими живляться бактерії. 8. Ротова порожнина повинна бути вологою. Слина допомагає очистити ротову порожнину оскільки містить природній антибактеріальний склад. 9. Якщо ви хочете зберегти свіжість подиху, утримайтеся від червоного вина, кави, м'яса та часнику. Всі ці продукти викликають галітоз.

Overview

Halitosis is an oral health condition characterized by consistently bad breath. The bad smell is usually caused by chemical molecules containing sulphur. Halitosis may be caused by certain foods, poor oral healthcare, improper cleaning of dentures, periodontal disease, xerostomia (dry mouth), tobacco products, certain medical disorders etc. Some common symptoms of bad breath include: bad breath smell, bad taste or taste changes, dry mouth, and a coating on the tongue. Specific treatment for halitosis will be determined by your physician or dentist based on health of your mouth; cause or origin of the condition; extent of the condition; your tolerance for specific medications, procedures, or therapies; your opinion or preference.

Lessons 14, 15**Xerostomia****VOCABULARY****xerostomia** [ˈzɪ(q)rəˈstəʊmiə] ксеростомія**markedly** [ˈmɑːklɪ] помітно, явно**dry** [ˈdraɪ] сухий**adhere** [əˈdɪə] прилипати**flow** [fləʊ] тік, потік, рух**culprit** [ˈkʌlprɪt] винуватець, винний**nutrition** [njuːˈtrɪʃ(q)n] харчування**substitute** [ˈsʌbstɪtjuːt] замітник**hoarseness** [ˈhɔːsnɪs] хрипота**retention** [rɪˈten(t)ʃ(ə)n] ретенція, фіксація, утримування**hidden** [ˈhɪdn] прихований**palliative** [ˈpælɪətiʊv] паліативний, пом'якшуючий (тимчасово полегшує ситуацію, але не усуває причину проблеми)**WORD-BUILDING
COMPOUND WORDS****Ex. 1. Read and translate the following words and word-combinations:**

Ache; acute ache; bad ache; bone ache ; dull ache; face-ache; persistent ache; toothache; acheless; aching;

Act; action; emergency action; reflex action; activate; activation; active; radioactive implant; activity; hyperactivity; inactivate; inactivation;

Adhere; adherence; adherent; adhesion; primary adhesion; adhesive; biological adhesive; adhesiveness.

GRAMMAR:

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

SEQUENCE OF TENSES

He said (Past Simple) Він сказав, що	he examined patients in the morning. (Past Simple) оглядає пацієнтів вранці.
	he had examined patients. (Past Perfect) оглянув пацієнтів.
	he would examine patients. (Future-in-the-Past) огляне пацієнтів.

Ex. 3. Read and translate the following sentences:

1. We learned the brain was the part of the central nervous system. 2. She knew the surgeon had performed on the operation a day before. 3. They said the flow of stimuli came into the brain from the eyes, ears, and other sense organs. 4. The scientists determined the hypothalamus controlled blood pressure. 5. It was estimated the patient would restored his health by the end of June.

Ex. 4. Translate the following sentences into English:

1. Лікар виявив, що у хворого високий кров'яний тиск. 2. Професор сказав, що кровonosні судини поділяються на артерії, вени і капіляри. 3. Лектор сказав, що м'язові волокна з'єднуються за допомогою сполучної тканини. 4. Ми дізналися, що мозок складається з 100 мільярдів нейронів.

READING AND DEVELOPING SPEAKING SKILLS

Ex. 5. Read VOCABULARY and memorize the following words.

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

Ex.7. Read and translate the following word combinations:

Saliva flow, oral complications, oral mucosa, inflammation, parotid gland, palate, tongue, dentures, dental caries, plaque, hidden cause, nasal passages, swallowing, sore throat, health problems, complaint, salivary gland, side effect.

Ex.8. Read and translate the following text:

Xerostomia

Xerostomia is defined as dry mouth resulting from reduced or absent saliva flow. Xerostomia is not a disease, but it may be a symptom of various medical conditions, a side effect of a radiation to the head and neck, or a side effect of a wide variety of medications. Xerostomia is a common complaint found often among older adults, affecting approximately 20 percent of the elderly.

Xerostomia is often a contributing factor for both minor and serious health problems. It can affect nutrition and dental, as well as psychological, health. Some common problems associated with xerostomia include a constant sore throat, burning sensation, difficulty speaking and swallowing, hoarseness and/or dry nasal passages. Xerostomia is an original hidden cause of gum disease and tooth loss in three out of every 10 adults. If left untreated, xerostomia decreases the oral pH and significantly increases the development of plaque and dental caries. Oral candidiasis is one of the most common oral infections seen in association with xerostomia.

Individuals with xerostomia often complain of problems with eating, speaking, swallowing and wearing dentures. Dry, crumbly foods, such as cereals and crackers, may be particularly difficult to chew and swallow. Denture wearers may have problems with denture retention, denture sores and the tongue sticking to the palate. Patients with xerostomia often complain of taste disorders, a painful tongue and an increased need to drink water, especially at night. Xerostomia can lead to markedly increased dental caries, parotid gland enlargement, inflammation and fissuring of the lips, inflammation or ulcers of the tongue and buccal mucosa, oral candidiasis, salivary gland infection, halitosis and cracking and fissuring of the oral mucosa.

Diagnosis of xerostomia may be based on evidence obtained from the patient's history, an examination of the oral cavity and/or sialometry, a simple office procedure that measures the flow rate of saliva. Xerostomia should be considered if the patient complains of dry mouth, particularly at night, or of difficulty eating dry foods such as crackers. When the mouth is examined, a tongue depressor may stick to the buccal mucosa. In women, the "lipstick sign," where lipstick adheres to the front teeth, may be a useful indicator of xerostomia.

Perhaps the most prevalent cause of xerostomia is medication. Xerogenic drugs can be found in 42 drug categories and 56 subcategories. More than 400 commonly used drugs can cause xerostomia. The main culprits are antihistamines, antidepressants, anticholinergics, anorexiant, antihypertensives, antipsychotics, anti-Parkinson agents, diuretics and sedatives. Other drug classes that commonly cause xerostomia include antiemetics, decongestants, analgesics, antidiarrheals, bronchodilators and skeletal muscle relaxants.

The general approach to treating patients with hyposalivation and xerostomia is directed at palliative treatment for the relief of symptoms and prevention of oral complications.

Ex. 9. Translate into English:

Побічна дія, жувати, ковтати, слинні залози, піднебіння, біль у горлі, інфекції ротової порожнини, люди, що носять протези, проста процедура, скаржитися, скарга, слизова оболонка ротової порожнини, слизова оболонка щік, полегшення симптомів.

Ex.10. Answer the following questions:

1. What is xerostomia? 2. Is xerostomia a disease or a symptom? 3. What do individuals with xerostomia often complain of? 4. What may diagnosis of xerostomia be based on? 5. What is the most prevalent cause of xerostomia?

Ex.11. Match the following English medical terms with the Ukrainian ones:

1. antihistamines	а) протиблювотні засоби
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2. antidepressants	b) гіпотензивні засоби (такі, що знижують артеріальний тиск)
3. anticholinergics	c) антигістамінні засоби (такі, що протидіють ефекту гістаміну)
4. anorexiant	d) антихолінергічні засоби (такі, що блокують проведення імпульсів по парасимпатичних нервах)
5. antihypertensives	e) антидепресанти
6. antipsychotics	f) антипсихотичні (такі, що ефективні у лікуванні психозів); нейролептики
7. diuretics	g) анальгетичні засоби
8. sedatives	h) бронхолітичні засоби (такі, що спричиняють розширення повітряних шляхів у легенях)
9. antiemetics	i) релаксанти (такі, що зменшують напруження)
10. decongestants	j) діуретики (сечогінні засоби)
11. analgesics	k) седативні (заспокійливі) засоби
12. antidiarrheals	l) протизастійні, протиабрюкові засоби
13. bronchodilators	m) антидіарейні засоби
14. relaxants	n) анорексичні засоби

Ex. 12. Complete the sentences using words in italics and translate them:

If the patient's xerostomia is caused by the _____ of a drug, the dentist can recommend an alternative medication. But this course may not be _____ if the alternate drug has a mode of action similar to that of the original drug. Modification of the dosage regimen is another strategy that may increase _____ flow. The practice of carrying and sipping bottled _____ throughout the day, which has become popular, also may offer _____ for affected patients. When at home, the patient can hold ice chips in his or her _____ to provide moisture and possibly alleviate symptoms.

(*relief, side effect, mouth, beneficial, salivary, water*)

Ex.13. Insert the missing prepositions (with, of, for, in):

A number ___ over-the-counter products that can function as saliva substitutes have been developed specifically ___ patients with xerostomia. Available ___ a variety of formulations—including rinses, aerosols, chewing gum and dentifrices - these products also may promote salivary gland secretions. Commercial mouth rinses that contain alcohol may desiccate the oral mucosa, and patients ___ xerostomia should avoid using them.

Ex.14. Write down key-words from the text “Xerostomia”.

Ex.15. Compose detailed plan to text “Xerostomia”.

Ex.16. Make up the summary to the text “Xerostomia”.

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

The best way to treat your dry mouth depends on what's causing it. There are some things you can do that will relieve dry mouth temporarily, but the best long-term remedy for dry mouth is to address its cause.

The medical term for dry mouth is xerostomia. To relieve your dry mouth:

- Chew sugar-free gum or suck on sugar-free hard candies.
- Limit your caffeine intake. Caffeine can make your mouth drier.

- Don't use mouthwashes that contain alcohol because they can be drying.
- Stop all tobacco use if you smoke or chew tobacco.
- Sip water regularly.
- Try over-the-counter saliva substitutes.
- Avoid using over-the-counter antihistamines and decongestants because they can make your symptoms worse.
- Breathe through your nose, not your mouth.
- Add moisture to the air at night with a room humidifier.

Saliva is important to maintaining the health of your teeth and mouth. If you frequently have a dry mouth, steps to protect your oral health may also help your condition. Avoid sugary or acidic foods and candies because they increase the risk of tooth decay. Brush with a fluoride toothpaste. Ask your dentist if you might benefit from prescription fluoride toothpaste. Use a fluoride rinse or brush-on fluoride gel before bedtime.

If these steps don't improve your dry mouth, talk to your doctor or dentist. It could be that medications or another condition is the cause. Medications are one of the most common causes of dry mouth. Long-term relief from your dry mouth may mean stopping or changing your medication or its dosage, or addressing underlying health issues.

Ex.18. Read and translate the following abstract without dictionary:

Since dry mouth is caused by many things, it should not be surprising that there are different ways to treat it. If your physician or dentist can determine the cause of your oral dryness, he/she may be able to provide you with a specific cure.

If the dryness is due to drugs, it may be possible for your doctor to advise you to stop taking those drugs, reduce their intake or switch to another “less drying” medication. Sometimes, especially, in life threatening diseases, it may not be possible to change a patient’s drug intake pattern. If the dryness is due to a specific disease, e.g. diabetes, proper treatment of the disease will decrease the intensity of your oral symptoms. Occasionally, we do not know the causes of the diseases which produce dry mouth. In such cases, we try to relieve the symptoms of the disease rather than treat the disease itself.

Ex.19. Read the following case history and compose the dialogue:

1) A 54-year-old woman complaining of a two-month history of fatigue and general trouble sleeping at night, stating that she wakes up often with a dry mouth and throat. She also states her eyes have been dry, tired and red lately, but she attributes this to her poor sleep patterns. She states she is currently consuming up to seven pints a day of liquids (coffee, tea, water, juice, milk, soda, etc.), and she is very distressed by her severe dry mouth. She wakes several times during the night and averages only four hours sleep. She drinks minimal alcohol and smokes approximately 15 cigarettes per day. She has no other complaints, and her past medical history is significant only for a history of allergic rhinitis for which she takes OTC antihistamines and decongestants.

The following are some examples of questions you might ask.

Do you need to moisten your mouth frequently or sip liquids often?

Does your mouth feel dry at mealtime?

Do you have less saliva than you used to?

Do you have trouble swallowing?

Is it difficult to eat dry foods such as crackers or toast?

Do you suffer from any chronic illness, such as diabetes or hypertension?

When was the last time you had a complete physical examination by your doctor?
What prescription and OTC medications are you currently taking?
What dietary supplements are you currently taking?
How often do you brush your teeth?
Do you wear dentures? If so, how often do you clean your dentures?
When was the last time you saw your dentist for a regular checkup?
Do you have toothaches or other dental pain?
Have you noticed any sores in your mouth or on your lips?
How much water do you drink throughout the day?

2) After discussing her problem with the dentist earlier, she made an appointment with her physician and has subsequently been diagnosed with Sjögren's syndrome (Синдром Шегрєна — аутоімунне системне пошкодження сполучної тканини, що проявляється залученням у патологічний процес залоз зовнішньої секреції, переважно слинних і слізних, і хронічним прогресуючим перебігом). She now returns to discuss management options for her xerostomia.

Task: Compose specific treatment options and counseling tips for her:

- For her allergic rhinitis, suggest nonsedating antihistamines and avoidance of products containing decongestants.
- Go over the self-care measures covered earlier in this discussion (with emphasis on minimizing caffeine consumption and smoking).
- Give advice about good oral hygiene.
- Encourage adequate fluid intake, avoiding caffeine and sugar-containing products and alcohol.
- Encourage her to quit smoking.
- Consider the use of an artificial saliva and/or OTC saliva stimulant.

Ex.20. Ask the questions about the following statements. Begin with the word in brackets:

1. Xerostomia occurs when the salivary glands do not make enough saliva. (When?)
2. Chewing, swallowing, tasting, and talking may be more difficult with a dry mouth. (What activities?)
3. Dry mouth often causes dental problems. (What?)
4. Saliva helps maintain a healthy balance of bacteria in the mouth. (Where?)
5. Saliva also washes away acids and food particles left in the mouth after eating. (What?)
6. A lack of saliva can cause cavities (tooth decay) and gum disease. (What?)
7. Chemotherapy or radiation treatments cause dry mouth by damaging the salivary glands. (How?)
8. It can take six months or longer for the salivary glands to start producing saliva again after the radiation treatment ends. (How long?)

Ex.21. Translate into English:

1. Слина - особлива форма рідини, яка зволожує рот, свого роду природній очищувач ротової порожнини. 2. Вона діє як мастило для тканин і органів порожнини рота, зволожує їжу і полегшує ковтання. 3. Тому при зниженні секреції слини знижуються всі її захисні механізми. 4. Ксеростомія - зниження кількості слини. 5. Ксеростомія може спостерігатися при захворюванні дихальних шляхів. 6. Сухість в роті буває тимчасовою або постійною. 7. Тимчасова сухість рота відчувається вранці від зниженого вироблення слини вночі. 8. Причиною ксеростомії може бути вік (секреція слини з віком знижується). 9. У людей, які протягом тривалого часу страждають на ксеростомію, частіше виникають карієс і пародонтальні захворювання, які в свою чергу

призводять до неприємного запаху з рота. 10. При постійній сухості в роті потрібно частіше пити воду, щоб підтримати в організмі і в ротовій порожнині необхідний рівень рідини.

Overview

Xerostomia is defined as dry mouth resulting from reduced or absent saliva flow. Xerostomia is not a disease, but it may be a symptom of various medical conditions, a side effect of a radiation to the head and neck, or a side effect of a wide variety of medications. The signs and symptoms of dry mouth include the following: a sticky, dry feeling in the mouth, thick saliva, pain or a burning sensation in the mouth or on the tongue, cracks in the lips or at the corners of the mouth, a dry, tough tongue, difficulty chewing, tasting, swallowing or talking. The general approach to treating patients with xerostomia is directed at palliative treatment for the relief of symptoms and prevention of oral complications.

Lesson 14

Dental anamnesis

VOCABULARY

assessment [ə'sesmənt] оцінка, оцінювання	percussion [pə'kʌʃ(ə)n] вистукування, перкусія
complaint [kəm'pleɪnt] скарга	
provisional [prə'vɪz(ə)n(ə)l] попередній, тимчасовий	auscultation [ˈɔːsk(ə)l'teɪʃ(ə)n] аускультация
gestures ['Gestʃə] жест	diascopy [daɪ'xskɒpi] діаскопія (метод діагностики шкірних хвороб)
previous ['priːviəs] попередній	aspiration [ˈæsp(ə)reɪʃ(ə)n] аспірація, відсмоктування рідини з порожнини
meaningful ['miːnɪŋfʊl] значущий, важливий	verbally ['vɜːb(ə)li] вербально, на словах
bruxing ['bruːksɪŋ] скреготіння зубами під час сну	elicit [ɪ'lɪsɪt] встановлювати, робити висновок
clenching [klenʃɪŋ] стискання (напр. зубів)	etiology [ˈɪtɪ'ɒlədʒi] етіологія, причина виникнення хвороби
clarify ['klærɪfaɪ] прояснювати	
recording [rɪ'kɔːdɪŋ] запис, реєстрація	findings ['faɪndɪŋz] отримані дані, результати
data (sing. datum) ['deɪtə] дані, відомості	

WORD-BUILDING

COMPOUND WORDS

Ex. 1. Read and translate the following words and word-combinations:

Heal; healable; healing; health; healthless; healthful; healthy; unhealthy;

grow; growing; growth; ingrowth; regrowth; growth-rate; newgrowth; no-growth; grown;

set; outset; setting; resetting; unset; inset; reset; to inset; to reset; resetting .

GRAMMAR:

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

ADVERBS

slowly, quickly, badly, easily (з неперехідним дієсловом)	They walked quickly .
slowly, quickly, badly, easily (з перехідним дієсловом)	He wrote case-history quickly . He quickly wrote a case-history.

always, often, never, usually, sometimes	She <i>always</i> receive necessary information. He <i>is always</i> busy. She must always be in time.
today, yesterday, tomorrow	They will come <i>tomorrow</i> . <i>Tomorrow</i> they will come.

Ex. 3. Read and analyze the place of the adverbs in the following sentences:

1. The blood was dropping from the wound very slowly. 2. Chronic forms begin more slowly. 3. Acute leukemia progresses quickly. 4. The axon quickly divides into numerous branches. 5. Injured leg hurts very badly. 6. In two or three weeks the same recovery is always complete. 7. I usually go to see my friends in the evening. 8. These patients usually have acute problems. 9. This space is always filled with aqueous humor. 10. The face is usually a mirror of person's condition.

READING AND DEVELOPING SPEAKING SKILLS

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

Ex. 5. Insert the missing letters:

Di_gnosis, f_ndings, _omplaint, asses_ment, aspi_ation, a_scultation, per_ussion, etiolo_y, examina_ion, investi_ation, inter_iew, hygi_ne, tra_ma, temporomand_bular, colle_tion.

Ex. 6. Read and translate the following words and word-combinations:

Case history, proper diagnosis, Accurate diagnosis, provisional diagnosis, final diagnosis, physician, conversation, establishment, initial contact, facial expressions, body posture, voice intonation, meaningful information, comprehensive, previous history, frequency, complications, chief complaint, gingival bleeding, maxillofacial trauma, the eyes, the ears, supporting tissues, probing, vitality tests.

Ex. 7. Read and translate the following text into your native language:

Dental case history

Case history (anamnesis) is an important and integral part of treatment. The treatment of a disease or a condition starts with its proper diagnosis and this can be done successfully only by taking down a proper case history. Accurate diagnosis of a disease depends on the art of taking case history.

Case history is a planned professional conversation that enables the patients to communicate their symptoms, feelings and fear complex to the physician. In many occasions a properly prepared case history alone is sufficient to diagnose the disease without examining the patient.

Steps in case history preparation include the following: general information, history recording, examination of the patient, establishment of provisional diagnosis, necessary investigations, final diagnosis, treatment plan and prognosis.

The interview is the technique used to get a history from the patient. Assessment begins from the moment you make initial contact with the patient, and continues throughout the interview. During the interview you will get information about the patient's health and feelings – verbally and in writing – while also observing gestures, facial expressions, body posture and changes in voice intonation. In this way there is interaction between you and the patient, which allows you to collect, clarify and expand on meaningful information from the patient's responses. This type of interview is called the data-collecting interview.

The type of information you get during history taking will depend on the priorities of care and the needs of your patient. A comprehensive history has eight components: 1) demographic details; 2)

main complaint or reason for visit; 3) present illness; 4) previous history; 5) history of family illness; 6) systems and body parts; 7) nutritional history; 8) activities of daily living. The following elements should be included in the dental history:

- Past dental visits, including frequency, reasons, previous treatment, and complications
- Oral hygiene practices
- Oral symptoms other than those associated with the chief complaint, including tooth pain or sensitivity, gingival bleeding or pain, tooth mobility, halitosis, and abscess formation
- Past dental or maxillofacial trauma
- Habits related to oral disease, such as bruxing, clenching, and nail biting
- Dietary history

Clinical examination of the patient includes general examination, extraoral examination (skull, the hair, the eyes, the ears, the nose, the symmetry of the face, the lymph nodes, the temporomandibular joint, the neck), intraoral examination (lips, teeth, tooth supporting tissues, oral mucosa, saliva, bones and occlusion). Different techniques of clinical examination are used by the dentist including: visual inspection, palpation, probing, percussion, auscultation, diascopy, aspiration, vitality tests of the teeth and other specific examinations

All bits of information obtained in the history and examination process are called findings. Findings may be normal or abnormal, healthy or pathologic. All findings can generally be grouped as either symptoms (subjective, elicited by history and interview, as described by the patient) or signs (objective, often measurable, discovered by examination).

The written record is the most effective method for transferring permanent data. The written record is a working document of all findings, and all the healthcare givers looking after the patient share this information. Although writing reports is time-consuming, it is efficient because it eliminates the possibility of the data being forgotten and the consequent repetition of data collection.

Diagnosis is an assessment of the findings which specifies what is happening to a patient and why.

Treatment plan is a written plan of treatment which addresses both disease and etiology; it is the end product of data gathering and diagnosis, and it may take one of two forms: emergency or immediate treatment plan and comprehensive or long range treatment plan.

Ex.8. Find in the text the equivalents for the following words and word-combinations:

План лікування, оцінювання результатів, робочий документ, ділитися інформацією, ефективний метод, причини візиту, виключати можливість, щелепно-лицьова травма, утворення абсцесу, взаємодія, вираз обличчя, кусання нігтів, достатній, мистецтво збору анамнезу, невід'ємна частина лікування.

Ex.9. Answer the following questions:

1. What is a dental case history? 2. What steps does case history preparation include? 3. What kind of information can you get during the data-collecting interview? 4. What are the components of a comprehensive history? 5. What elements should be included in the dental history? 6. What does clinical examination of the patient include? 7. What techniques of clinical examination do you know? 8. How can all findings be generally grouped? 9. What is treatment plan?

Ex.10. Insert the missing words given below:

Collecting _____ is not the only purpose of interviewing. Interviews are also conducted to build up a professional relationship with the _____; promote communication and ensure that the patient

understands the purpose of the _____; give the health care practitioner an understanding of the patient's _____; support the patient during the management and follow-up of the problem.

The data-collecting interview has three _____:

Phase 1. The introduction. Try to put the patient at ease and win the patient's _____.

Phase 2. The active data-collecting phase. During this phase, use various interviewing _____ to encourage the patient to talk. This will help you _____ complete and accurate data within the specified time period.

Phase 3. The conclusion. Give direction to the patient by _____ what he/she can expect.

patient, data, problem, phases, interview, techniques, confidence, explaining, collect

Ex.11. Distinguish between symptoms and signs:

Redness, pain, sensitivity to hot or cold, measurable fever, altered taste, molar crossbite, esthetic complaints, bad breath, swelling, inability to chew or to speak clearly, tenderness to palpation, crepitus.

Symptoms	Signs

Ex.12. Read the following text and write down all unknown words:

Techniques of clinical examination

Visual examination

Visual dental examination includes general inspection of the patient, extra-oral and intra-oral inspection. Inspection is either directly by eyes or by using adjunctive instruments such as dental mirror, special sources of light to transilluminate the area. To have correct results of inspection the dentist should know the normal anatomy, tissue, color, size, etc.:

Healthy lips should be smooth, pink and moist. Look for dryness, lumps, cracked corners, inflammation or abnormal color.

A healthy tongue should be pink and moist. Look for patchy, white coating or any redness or swelling.

Healthy gums and tissues should be pink, moist, smooth and free from bleeding. Look for any ulcers, sores, swelling, redness or bleeding. Remove dentures to inspect the surface of the mouth for any hidden irritations.

Healthy teeth should be clean and free from food debris, plaque and decay. Look for worn down teeth, decay (black or brown spots) or cracks.

Dentures should be clean, well-fitting and intact. Look for any cracks, breaks, worn areas, and overall cleanliness. Inspect the tissues under the dentures for any signs of irritation.

Palpation

Palpation is a diagnostic procedure in which the examiner feels or presses gentle but firm pressure upon tissues and structures of the body for the purpose of determining various characteristics present in the areas examined. The clinical examination of the dental patient should include palpation of the various tissues associated with the masticatory system (neck, oral and facial areas) to detect areas which may be contributing to abnormal masticatory function and to confirm and evaluate sites which have been described by the patient as being uncomfortable, tender, painful, etc. Palpation gives information about texture, consistency, size, temperature, pulsation, hardness, infiltration and mobility.

Probing

Probing is an important step in dental work since it is done by any dentist to any patient using a dental probe (explorer) which is considered as one of the diagnostic instruments. The dental probes are

of different shapes but all have pointing tip to detect dental caries, any sensitive dentin; to measure the depth of the periodontal sulcus and reveal any pocket formation; to examine the orifice of the salivary glands and also to detect a communication with the maxillary sinus; to detect the starting of anaesthesia by checking the soft tissues of skin and gingiva; to cut the periodontal ligament before extraction etc.

Percussion

Percussion is a tapping with the mirror handle on the tooth in a vertical direction to identify the tooth that has inflammation in the ligament and, consequently, hurts the most to tapping. If two teeth together hurt to tapping, immobilize one with your finger while tapping the other and then reverse the process. Often you will find that one hurts significantly more than the other and will be the more suspicious of the two.

Auscultation

It is an act of listening for sounds within the body. This is by using the ears either directly or indirectly by using the stethoscope. The stethoscope is used widely by the physician and the dentist uses it to check blood pressure or to hear the sounds of the temporomandibular joint.

Ex.13. Speak on the techniques of clinical examination

Ex.14. Insert the missing prepositions (of, from, in, with, before, by):

Aspiration is an act to withdraw a fluid ____ its contents ____ a body cavity ____ aspirating syringe. The aspirated area may be located ____ soft tissue or centrally in the bone. Lesions could be injected ____ saline then aspirated, or other lesions may contain fluid ____ the beginning. The color ____ the aspirated fluid is of importance. Local anesthesia is done ____ giving intramuscular aspiration.

Ex.15. Read the following text, ask approximately 7-8 questions and answer them:

Vitality tests of the teeth

The tooth should be examined for vitality by several tests:

The cold test

This is simply done with cylindrically shaped ice sticks. Keep them in the freezer and withdraw the frozen cylinder when needed. A good site of cold application is generally the buccal surface as close to the cemento-enamel junction as possible. If a tooth has irreversible pulpitis it will either give a prolonged response, possibly after some delay, or no response. Transient pain (less than ten seconds) after the application and removal of ice is normal. No response may mean the tooth is endodontically involved, especially if all other teeth respond to cold. If sharp transient pain occurs that is greater than the pain felt in surrounding teeth, check to see if the bite is high. Root canal is probably not needed and the bite adjustment will eliminate the hyper response to cold.

The heat test

Using a ball of hot gutta percha on the tip of a plastic instrument, place the gutta percha onto the tooth the same way you would the ice. Wait approximately 15 seconds between teeth to assess the possibility of a delayed, but, prolonged response. Compare the results from other tested teeth. If one tooth gives a prolonged response, whether immediate or delayed, it is a most suspicious candidate for endodontics. If the pain is immediately relieved by cold, the tooth probably needs root canal.

The electric pulp test (EPT)

This test should be used when the hot and cold tests fail to give clear information on the state of vitality of the tooth. Again, the information supplied by the electric pulp test must be weighed against the response from other teeth. The fact that a tooth does not respond to the EPT has little meaning if all

the other teeth also do not respond, unless of course this is the only tooth with a well-defined area at the apex or is quite tender to percussion.

Ex.16. Fill in the questionnaire (anamnesis). Make up a dialogue based on your answers.

Name: _____

Date of birth: _____

Occupation: _____

Telephone: _____

E-mail: _____

For an effective treatment and to avoid possible complications, please answer the following questions:

1. Have you had any changes in your health in the past year? ☐ Yes ☐ No

If yes, what? _____

2. Have you been hospitalized in the last three years? ☐ Yes ☐ No

If yes, why? _____

3. Your blood pressure is: ☐ normal ☐ unstable ☐ high ☐ very high

4. Do you smoke? ☐ Yes ☐ No

If yes, how many a day? _____

5. Do you suffer (or have you suffered) from (any):

- heart and/or circulatory disease? ☐ Yes ☐ No

- hemophilia? ☐ Yes ☐ No

- diabetes? ☐ Yes ☐ No

- liver-, gall complaints or jaundice? ☐ Yes ☐ No

- contagious disease (TBC, syphilis, AIDS) ☐ Yes ☐ No

- respiratory disease or asthma ☐ Yes ☐ No

- nervous disease? ☐ Yes ☐ No

- dizziness, fainting, spasms, indisposition? ☐ Yes ☐ No

- allergies, hypersensitivity? ☐ Yes ☐ No

If yes, to what? _____

6. Any further complaints or illnesses which might be important for us to know?

7. Any operations you have had:

8. Medicines you regularly take:

9. Have you in the past few weeks taken any other medication besides these? ☐ Yes ☐ No

If yes, what? _____

Acute troubles:

10. Do you have pain in mouth or teeth? ☐ Yes ☐ No

If yes, where? when? appearing? since when?: _____

Dental anamnesis / case history:

11. Which kind of dental treatments have been carried out in the last 3 years?

Jaw:

12. Troubles/pain in jaw? ☐ Yes ☐ No

13. Is there any cracking noise, gnashing or rubbing? ☐ Yes ☐ No

If yes, which side? _____

14. Teeth in right position when biting? ☐ Yes ☐ No

15. Limitation of movement when opening the mouth or moving to one side? ☐ Yes ☐ No?

16. Chronic headache? ☐ Yes ☐ No?

If yes, how often? where (region)? _____

17. Pain in cervical vertebra, neck and shoulders? ☐ Yes ☐ No?

3

18. Chronic ear infections, pain, tinnitus etc? ☐ Yes ☐ No

19. Problems with eyes, strong visual disorder, high eye pressure etc? ☐ Yes ☐ No

20. Orthodontic treatment in the past? ☐ Yes ☐ No

If yes, please give details:

21. Have you ever worn braces? ☐ Yes ☐ No

If yes: ☐ fixed ☐ removable

22. Have you had depuration? ☐ Yes ☐ No

The last time you had it was: _____

23. How often do you brush your teeth a day? _____

24. Do you regularly use dental floss? ☐ Yes ☐ No

Date: _____ Signature: _____

Ex.17. Translate into English:

1. Щоб поставити правильний діагноз, необхідно зібрати якнайбільше інформації про стан здоров'я пацієнта. 2. При огляді пацієнта стоматолог звертає увагу на колір обличчя, його симетричність, стан шкіри, на мовлення та жувальні рухи. 3. Для обстеження ротової порожнини необхідні добре освітлення, стоматологічне дзеркальце та зонди. 4. Інколи візуального огляду не достатньо, щоб поставити остаточний діагноз.

Overview

Case history is a planned professional conversation that enables the patients to communicate their symptoms, feelings and fear complex to the physician. The following elements should be included in the dental history: past dental visits, oral hygiene practices, oral symptoms, past dental or maxillofacial trauma, habits related to oral disease, dietary history. Clinical examination of the patient includes general examination, extra-oral examination, intra-oral examination. Different techniques of clinical examination are used by the dentist including visual inspection, palpation, probing, percussion, etc. All bits of information obtained in the history and examination process are called findings. The written record is a working document of all findings. Diagnosis is an assessment of the findings which

specifies what is happening to a patient and why. Treatment plan is the end product of data gathering and diagnosis.

Lesson 15

Dental radiography

VOCABULARY

radiograph (x-ray) ['reɪdɪəʊgrɑ:f] рентген	to evolve [ɪ'vɒlv] виявляти
hidden ['hɪd(ə)n] прихований	sialolith [sɪ'qʌlɪθ] – слинний конкремент
malignant [mə'lɪgnənt] злоякісний	evaluation [ɪ'væljueɪʃ(ə)n] оцінювання
benign [bɪ'naɪn] доброякісний	to hover ['hɒvə] парити, нависати
to penetrate ['penɪtreɪt] проникати	to capture ['kæptʃə] захоплювати
ligament ['lɪɡmənt] зв'язка	demarcation ['di:mɑ:'keɪʃ(ə)n] демаркація, поділ
comprehensive ['kɒmprɪ'hensɪv] комплексний	
conventional [kən'ven(t)ʃ(ə)n(ə)l] звичайний, стандартний	

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:

-ly Adverbs are words that modify:

a verb (He drove slowly. — How did he drive?)

an adjective (He drove a very fast car. — How fast was his car?)

another adverb (She moved quite slowly down the aisle. — How slowly did she move?)

As we will see, adverbs often tell when, where, why, or under what conditions something happens or happened. Adverbs frequently end in -ly; however, many words and phrases not ending in -ly serve an adverbial function and an -ly ending is not a guarantee that a word is an adverb. The words lovely, lonely, motherly, friendly, neighborly, for instance, are adjectives:

That lovely woman lives in a friendly neighborhood.

If a group of words containing a subject and verb acts as an adverb (modifying the verb of a sentence), it is called an Adverb Clause:

When this class is over, we're going to the movies.

When a group of words not containing a subject and verb acts as an adverb, it is called an adverbial phrase. Prepositional phrases frequently have adverbial functions (telling place and time, modifying the verb):

Ex. 2. Read and translate the following words:

A. termination, deletion, motion, action, junction, connection, derivation.

B. cytopathology, cytochemistry, cytoplasm, cytositis, cytotoxic, cytotropic.

GRAMMAR

Ex. 3. Read the following grammar material:

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	What	have	I, you, we		What has the

Tense	Why Where How many		they	V₃	scientist determined this year?
Past Perfect Tense	How much	has	he, she, it		
		had	I, he, she, it, you, we, they	V₃	How many parts had the cell divided by 5 o'clock?
Future Perfect Tense		shall	I, we		
		will	he, she, it, you, they	have + V₃	What text will Helen have translated by 3 o'clock?

Ex. 4. Translate the following interrogative sentences into your native language:

1. Has the computer analyzed the patient's condition? 2. Have these authors published their medical articles? 3. What inventions in medicine has V.P. Filatov made? 4. What hospitals have the Romans established? 5. What countries has the child mortality declined during the last decade? 6. Why have these methods of treatment used?

READING AND DEVELOPING SPEAKING

Ex. 5. Insert the missing letters:

Radiogra_ic, im_ge, forme_, _-ray, rad_ation, w_ich, pen_trate, str_ature, dif_erent, le_els, an_tomical, dens_tiy, _eeth, li_hter.

Ex. 6. Translate the following words and word-combinations into your native language:

Alveolar bone, in relation to, the cementoenamel junctions, demarcation lines on the teeth, separate tooth, crown, root, routine, radiographs, to examine, interdental caries, recurrent caries, restorations, bone loss.

Ex. 7. Read the following words and word-combinations:

Periapical view; anterior and posterior teeth; helpful in determining the cause of pain in a specific tooth; dentist; to visualize; surrounding bone; to determine the need; endodontic therapy; the successful progression; endodontic therapy; it can be used; in case; detection hyperdontia (supernumerary teeth); impacted teeth.

Ex.8. Read the following text:

Types of Dental X-rays

Dental radiographs are commonly called x-rays. Dentists use radiographs for many reasons: to find hidden dental structures, malignant or benign masses, bone loss, and cavities.

X-rays are a form of invisible, high-frequency electromagnetic radiation. As X-rays pass through the body, energy particles in them (called photons) are absorbed at different rates. The parts of your body that are made up of dense material, such as your teeth, show up as clear white areas on an X-ray image because less radiation penetrates them to reach the film. The parts of your body that are made of softer material, such as the periodontal ligament, show up as darker areas because X-rays readily penetrate these less dense structures. Dental restorations (fillings, crowns) may appear lighter or darker, depending on the density of the material.



There are two main types of dental X-rays: *intraoral* (meaning the X-ray film is inside the mouth) and *extraoral* (meaning the X-ray film is outside the mouth).

Intraoral X-rays are the most common type of X-ray taken. These X-rays provide a lot of detail and allow your dentist to find caries, check the health of the tooth root and bone surrounding the tooth, check the status of developing teeth, and monitor the general health of your teeth and jawbone.

Extraoral X-rays show teeth, but their main focus is the jaw and skull. Extraoral X-rays are used to look for impacted teeth, monitor growth and development of the jaws in relation to the teeth, and to identify potential problems between teeth and jaw and the temporomandibular joint (TMJ) or other bones of the face.

There are several types of **intraoral X-rays**, each of which shows different aspects of teeth. *Bite-wing X-rays* show details of the upper and lower teeth in one area of the mouth. Each bite-wing shows a tooth from its crown to about the level of the supporting bone. Bite-wing X-rays are used to detect decay between teeth and changes in bone density caused by gum disease. *Periapical X-rays* show the whole tooth, from the crown to beyond the end of the root. Periapical X-rays are used to detect any abnormalities of the root structure and surrounding bone structure.

Occlusal X-rays are larger and show full tooth development and placement. Each X-ray reveals the entire arch of teeth in either the upper or lower jaw.

There are several types of **extraoral X-rays**. *Panoramic X-rays* show the entire mouth area – all the teeth in both the upper and lower jaws – on a single X-ray. *Tomograms* show a particular layer of the mouth. This type of X-ray is useful for examining structures that are difficult to clearly see. *Cephalometric projections* show the entire side of the head. This type of X-ray is useful for examining the teeth in relation to the jaw. *Sialography* involves visualization of the salivary glands. *Computed tomography* shows the body's interior structures as a three-dimensional image. This type of X-ray is used to identify problems in the bones of the face, such as tumors or fractures.

There's a newer X-ray technique called *digital imaging*. Instead of developing X-ray film in a dark room, the X-rays are sent directly to a computer and can be viewed on a screen, stored, or printed out.

Ex. 9. Find in the text the equivalents for the following word-combinations:

Проявляти рентгенівську плівку, слинні залози, виявляти патології структури кореня, щільність кістки, площа ротової порожнини, скронево-нижньощелепний суглоб, контролювати ріст і розвиток щелеп, структура кореня, злякисний, доброякісний, легко проникати, чітко бачити.

Ex. 10. Answer the following questions:

1. What reasons do dentists use radiographs? 2. What does the appearance of structures on the image depend on? 3. What types of dental X-rays can you name? 4. What is the most common type of dental X-rays? 5. What is the main focus of extraoral X-rays? 6. What part of the tooth does periapical view show? 6. What type of *X-rays* show full tooth development and placement? 7. What types of extraoral X-rays can you name?

Ex. 11. Insert the missing prepositions (between, in, for, under, before):

1. X-rays can show decay that may not normally be seen directly ____ the mouth, for example: _____ a filling, or _____ teeth. 2. They can show whether you have an infection ____ the root of your tooth and how severe the infection is. 3. ____ children an x-ray can show any teeth that haven't come through yet, and let the dentist see whether there is enough space ____ the teeth to come through. 4. In adults, it can show any impacted wisdom teeth that may need to be removed, _____ they cause any problems.

Ex. 12. Insert the necessary words from the box:

radiation, images, size, digital, specialist, sent, dentist

1. There are several nice benefits of using _____ radiography. 2. The technique uses less _____ than the typical X-ray and there is no wait time for the X-rays to develop. 3. The _____ are available on a screen a few seconds after being taken. 4. The image taken can be enhanced and enlarged many times its actual _____ on the computer screen, making it easier for

your _____ to show you where and what the problem is. 5. If necessary, images can be electronically sent to another dentist or _____ – for instance, for a second opinion on a dental problem to determine if a specialist is needed. 6. The images can also be _____ to a new dentist (for example, if you move).

Ex. 13. Read the following text, divide it into logical parts and entitle them:

Early tooth decay does not tend to show many physical signs. Sometimes the tooth looks healthy, but your dentist will be able to see from an x-ray (radiograph) whether you have any decay under the enamel, any possible infections in the roots, or any bone loss around the tooth. X-rays can help the dentist to see in between your teeth or under the edge of your fillings. Finding and treating dental problems at an early stage can save both time and money. In children, x-rays can be used to show where the second teeth are and when they will come through. This also applies to adults when the wisdom teeth start to come through.

If you are a new patient, the dentist may recommend X-rays to determine the present status of your oral health and have a baseline to help identify changes that may occur later. A new set of X-rays may be needed to help your dentist detect any new cavities, determine the status of your gum health or evaluate the growth and development of your teeth. If a previous dentist has any radiographs of you, your new dentist may ask you for copies of them. Ask both dentists to help you with forwarding your X-rays.

Dental X-ray exams are safe; however, they do require very low levels of radiation exposure, which makes the risk of potentially harmful effects very small. Dental X-ray tools and techniques are designed to limit the body's exposure to radiation. A leaded apron minimizes exposure to the abdomen and should be used when any dental radiograph is taken. Also, a leaded thyroid collar can protect the thyroid from radiation, and should also be used whenever possible. The use of a leaded thyroid collar is recommended for women of childbearing age, pregnant women and children.

If you are pregnant, tell your dentist. During your pregnancy, you may need to have X-rays taken as part of your treatment plan for a dental disease. Use of the leaded apron and thyroid collar will protect you and your fetus from radiation exposure. Dental X-rays do not need to be delayed if you are trying to become pregnant or are breastfeeding.

Ex. 14. Match the parts of the sentences and translate them:

- | | |
|--|--|
| 1. The amount of radiation received from a dental x-ray... | a) ...can be very harmful. |
| 2. Your dentist will always take care to use x-rays... | b) ...by moving away from the x-ray beam. |
| 3. Exposure to high levels of radiation... | c) ...only when they need to. |
| 4. Staff limit the amount of radiation they receive... | d) ...your present oral health, your age, your risk for disease, and any signs and symptoms of oral disease. |
| 5. With modern techniques and equipment... | e) ...their teeth and jaws are still developing |
| 6. How often X-rays should be taken depends on... | f) ...risks are kept to a minimum. |
| 7. Children may require X-rays more often than adults because... | g) ...is extremely small. |

and are processed much quicker than conventional radiographic films, often instantly viewable on a computer. However digital sensors are extremely costly and have historically had poor resolution, though this is much improved in modern sensors.

It is possible for both tooth decay and periodontal disease to be missed during a clinical exam, and radiographic evaluation of the dental and periodontal tissues is a critical segment of the comprehensive oral examination.

There are intraoral radiographic views (periapical view; bitewing view; occlusal view; full mouth series), extraoral radiographic views; panoramic films; computed tomography.

The periapical view is taken of both anterior and posterior teeth. The objective of this type of view is to capture the tip of the root on the film. This is often helpful in determining the cause of pain in a specific tooth, because it allows a dentist to visualize the tooth as well as the surrounding bone in their entirety. This view is often used to determine the need for endodontic therapy as well as to visualize the successful progression of endodontic therapy once it is initiated. It can be used in case of detection hyperdontia (supernumerary teeth) and impacted teeth.

The bitewing view is taken to visualize the crowns of the posterior teeth and the height of the alveolar bone in relation to the cemento-enamel junctions, which are the demarcation lines on the teeth which separate tooth crown from tooth root. Routine bitewing radiographs are commonly used to examine for interdental caries and recurrent caries under existing restorations. When there is extensive bone loss, the films may be situated with their longer dimension in the vertical axis so as to better visualize their levels in relation to the teeth. Because bitewing views are taken from a more or less perpendicular angle to the buccal surface of the teeth, they more accurately exhibit the bone levels than do periapical views. Bitewings of the anterior teeth are not routinely taken. The name bitewing refers to a little tab of paper or plastic situated in the center of the X-ray film, which when bitten on, allows the film to hover so that it captures an even amount of maxillary and mandibular information.

Occlusal view

The occlusal view is indicated when there is a desire to reveal the skeletal or pathologic anatomy of either the floor of the mouth or the palate. The occlusal film, which is about three to four times the size of the film used to take a periapical or bitewing, is inserted into the mouth so as to entirely separate the maxillary and mandibular teeth, and the film is exposed either from under the chin or angled down from the top of the nose. Sometimes, it is placed in the inside of the cheek to confirm the presence of a sialolith in Stenson's duct, which carries saliva from the parotid gland. The occlusal view is not included in the standard full mouth series.

NOTES:

Bitewing view – довгофокусна рентгенографія (зйомка паралельними променями)

Ex.15. Translate the text "Dental radiography (part 1)" into your native language.

Ex. 16. Translate the following words and word-combinations into English:

Рентген; виявляти; стандартний; комплексний; прихований; злоякісний; доброякісний; оцінювання; проникати; зв'язки; зуби; м'яка тканина; інфекція; прикус; щічний; кістка; оточуючий; передній; плівка; піднебіння.

Ex. 11. Answer the following questions:

1. What is X-Ray? 2. How are dental radiographs commonly called? 3. Why do dentists use radiographs? 4. What is a radiographic image formed by? 4. What types of radiographic views have

you learned from the previous text? 5. Why is periapical view taken? 6. Why is the occlusal view indicated? 7. How can you explain the term “bitewing”? 8. Why is the bitewing view taken?

Ex. 18. Write out key sentences of the text "Dental radiography (part 1)".

Ex. 19. Compose the plan to the text "Dental radiography (part 1)".

Ex. 20. Speak on:

Intraoral radiographic view;

Periapical view;

Bitewing view;

Occlusal view;

Extraoral radiographic view.

Ex. 21. Translate the following sentences into English:

1. Періапікальні знімки роблять на передніх і задніх зубах. 2. Мета цього типу знімку - дістати корень на плівці. 3. Такий знімок часто використовується для визначення необхідності ендодонтичного лікування. 4. Він також може бути використаний у разі виявлення гіпердонції. 5. Оклюзійні знімки роблять для виявлення патологій анатомії порожнини рота або піднебіння. 6. Оклюзійну плівку накладають таким чином, щоб повністю відокремити зуби верхньої і нижньої щелепи. 7. Назву «рентгеночутлива плівка» відносять до маленької вкладки з паперу або пластику, розташованої у ротовій порожнині, за допомогою якої можна повністю бачити верхню та нижню щелепу.

Ex. 22. Read and memorize new words:

adjacent – прилеглий

mandibular - нижньощелепний

molar – моляр

premolar - примоляр

maxillary - верхньощелепний

canine – ікло

lateral incisor – бічний різець

malocclusion – малоклюзія (неправильний прикус)

Ex. 23. Read and translate the text below.

Dental radiography (part 2)

Full mouth series

A full mouth series is a complete set of intraoral X-rays taken of a patients' teeth and adjacent hard tissue. The full mouth series is composed of 18 films:

four bitewings; two molar bitewings (left and right); two premolar bitewings (left and right); eight posterior periapicals; two maxillary molar periapicals (left and right); two maxillary premolar periapicals (left and right); two mandibular molar periapicals (left and right); two mandibular premolar periapicals (left and right); six anterior periapicals; two maxillary canine-lateral incisor periapicals (left and right); two mandibular canine-lateral incisor periapicals (left and right); two central incisor periapicals (maxillary and mandibular)



Extraoral radiographic views

Placing the radiographic film or sensor outside the mouth, on the opposite side of the head from the X-ray source, produces an extraoral radiographic view.

A lateral cephalogram is used to evaluate dentofacial proportions and clarify the anatomic basis for a malocclusion, and an antero-posterior radiograph provides a face-forward view.

Panoramic films

A panoramic film, able to show a greater field of view, including the heads and necks of the mandibular condyles, the coronoid processes of the mandible, as well as the nasal cavity and the maxillary sinuses.

Panoramic films are extraoral films, in which the film is exposed while outside the patient's mouth, and they were developed by the United States Army as a quick way to get an overall view of a soldier's oral health. Exposing eighteen films per soldier was very time consuming, and it was felt that a single panoramic film could speed up the process of examining and assessing the dental health of the soldiers; soldiers with toothaches are not very effective. It was later discovered that while panoramic films can prove very useful in detecting and localizing mandibular fractures and other pathologic entities of the mandible, they were not very good at assessing periodontal bone loss or tooth decay.

Computed Tomography

There is increasing use of CT (computed tomography) scans in dentistry, particularly to plan dental implants; there may be significant levels of radiation and potential risk.

Ex. 24. Compose 5 questions based on the text in written form.

Ex. 25. Speak about:

Full mouth series;

Panoramic films.

Overview

Dental radiographs are commonly called x-rays. Dentists use radiographs for many reasons: to find hidden dental structures, malignant or benign masses, bone loss, and cavities. There are intraoral radiographic views; periapical view; bitewing view; occlusal view; full mouth series; extraoral radiographic views; panoramic films; computed tomography. The occlusal view is indicated when there is a desire to reveal the skeletal or pathologic anatomy of either the floor of the mouth or the palate. A panoramic film, able to show a greater field of view, including the heads and necks of the mandibular condyles, the coronoid processes of the mandible, as well as the nasal cavity and the maxillary sinuses.

Lesson 16

Additional texts

Text A

Dental Abscesses

An abscess is a localized collection of pus in a cavity formed by the disintegration of tissue. Abscesses are usually caused by specific microorganisms that invade the tissues, often by way of small wounds or breaks in the skin. An abscess is a natural defense mechanism in which the body attempts to localize an infection and "wall off" the microorganisms so that they cannot spread throughout the body.

There are at least three types of dental abscesses that resemble each other. A gum or gingival abscess is the result of injury to, or infection of, the surface of the gum tissue. If an infection moves deep into gum pockets, drainage of pus is blocked and a periodontal abscess results. A periapical abscess refers to a tooth in which the pulp is infected, usually secondary to tooth decay.

An abscess may occur when bacteria invades the dental pulp (the nerves and blood vessels that fill the central cavity of the tooth), causing the pulp to die. This most commonly happens as a result of dental caries, which destroy the tooth's enamel and dentin, allowing bacteria to reach the pulp.

The abscess is called acute or chronic, depending on how rapidly it forms and how effectively the body defends itself. An acute abscess is characterized by pain, swelling, and fever. A chronic abscess may be painless, with the patient completely unaware of its presence even as it continues to grow inside the jawbone.

Symptoms of Dental Abscesses. Pain is gnawing and continuous. The involved tooth is painful when percussed (tapped), and often the teeth cannot close without added discomfort. Hot foods may increase the pain. Local swelling and gingival fistulas may develop opposite the apex of the tooth, especially with deciduous (temporary) teeth. Drainage into the mouth causes a bitter taste.

Treatment of Dental Abscesses. It is important to determine which type of abscess is present so that the appropriate treatment may be rendered. In all three types of abscesses, the pus must be drained. Antibiotics may be prescribed if systemic symptoms such as fever and swelling in the lymph glands are present. Deep cleaning will be undertaken for gum pocket (periodontal) abscesses.

Text B

Glossitis

Glossitis (*Tongue inflammation; Tongue infection; Smooth tongue; Glossodynia; Burning tongue syndrome*) is inflammation or infection of the tongue. It causes the tongue to swell and change color. Finger-like projections on the surface of the tongue (papillae) may be lost, causing the tongue to appear smooth.

Symptoms:

- Tongue swelling.
- Smooth appearance to the tongue due to Pernicious anemia (vitamin B₁₂ deficiency).
- Tongue color changes (usually dark "beefy" red).
- Sore and tender tongue.
- Difficulty with chewing, swallowing, or speaking.

A health care provider should be contacted if symptoms of glossitis persist for longer than 10 days, if tongue swelling is severe, or if breathing, speaking, chewing, or swallowing become difficult.

Causes, incidence, and risk factors

- Bacterial or viral infections (including oral herpes simplex).
- Poor hydration and low saliva in the mouth may allow bacteria to grow more readily.
- Mechanical irritation or injury from burns, rough edges of teeth or dental appliances, or other trauma
- Tongue Piercings
- Exposure to irritants such as tobacco, alcohol, hot foods, or spices.
- Allergic reaction to toothpaste, mouthwash, breath fresheners, dyes in confectionery, plastic in dentures or retainers, or certain blood-pressure medications.
- Administration of ganglion blockers.
- Disorders such as iron deficiency anemia, pernicious anemia and other B-vitamin deficiencies, oral lichen planus, erythema multiforme, aphthous ulcer, pemphigus vulgaris, syphilis, and others.
- Occasionally, glossitis can be inherited.
- Albuterol (bronchodilator medicine)

A painful tongue may be an indication of several underlying serious medical conditions and nearly always merits assessment by a doctor or dentist.

The goal of treatment is to reduce inflammation. Treatment usually does not require hospitalization unless tongue swelling is severe. Good oral hygiene is necessary, including thorough tooth brushing at least twice a day, and flossing at least daily. Corticosteroids such as prednisone may

be given to reduce the inflammation of glossitis. For mild cases, topical applications (such as a prednisone mouth rinse that is not swallowed) may be recommended to avoid the side effects of swallowed or injected corticosteroids. Antibiotics, antifungal medications, or other antimicrobials may be prescribed if the cause of glossitis is an infection. Anemia and nutritional deficiencies must be treated, often by dietary changes or other supplements. Avoid irritants (such as hot or spicy foods, alcohol, and tobacco) to minimize the discomfort.

Good oral hygiene (thorough tooth brushing and flossing and regular professional cleaning and examination) may be helpful to prevent these disorders. Drinking plenty of water and the production of enough saliva, aid in the reduction of bacterial growth. Minimize irritants or injury in the mouth when possible. Avoid excessive use of any food or substance that irritates the mouth or tongue.

Text C

Dysgeusia

Dysgeusia is the distortion of the sense of taste. An alteration in taste or smell may be a secondary process in various disease states, or it may be the primary symptom. The distortion in the sense of taste is the only symptom, and diagnosis is usually complicated since the sense of taste is tied together with other sensory systems. Common causes of dysgeusia include chemotherapy and zinc deficiency. Different drugs could also be responsible for altering taste and resulting in dysgeusia. Due to the variety of causes of dysgeusia, there are many possible treatments that are effective in alleviating or terminating the symptoms of dysgeusia. These include artificial saliva, pilocarpine, zinc supplementation, alterations in drug therapy, and alpha lipoic acid.

The alterations in the sense of taste, usually a metallic taste, and sometimes smell are the only symptoms. The duration of the symptoms of dysgeusia depends on the cause. If the alteration in the sense of taste is due to gum disease, dental plaque, a temporary medication, or a short-term condition such as a cold, the dysgeusia should disappear once the cause is removed. In some cases, if lesions are present in the taste pathway and nerves have been damaged, the dysgeusia may be permanent.

Diagnosis of dysgeusia begins with the patient being questioned about salivation, swallowing, chewing, oral pain, previous ear infections (possibly indicated by hearing or balance problems), oral hygiene, and stomach problems. The initial history assessment also considers the possibility of accompanying diseases such as diabetes mellitus or cancer. A clinical examination is conducted and includes an inspection of the tongue and the oral cavity.

Text D

Stomatitis

Stomatitis is the inflammation of the mucous membrane lining the mouth, which is caused by infection and is very painful. The disease is quite common both in adults and children. The developed ulcers contain many germs and these ulcers form on the gums and the mouth, particularly between the teeth. Simple ulcers in the mouth, however, come and go spontaneously.

There is severe pain in the mouth of the person suffering from stomatitis and he is unable to take his meals; this thus affects his food habits. He also feels pain and difficulty in talking. The patient may have excessive salivation, coated tongue, bright red mouth, irritability, vomiting after taking meals, reduced appetite and bad breath. The patient may also suffer from mild fever and constipation.

There are many causes of Stomatitis. The most important cause, which leads to this condition, is poor oral hygiene and nutritional deficiencies. Even the defective functioning of the stomach and indigestion are its main causes of stomatitis.

Treatment of Stomatitis through Nature Cure: Diet: The bowels should be cleansed daily with a warm-water enema during this period. However, if the patient is a child, a glycerine suppository may be applied. The patient's diet should only include orange juice or carrot juice and water, every two hours during the day for about 3 to 5 days.

Home Remedies for Stomatitis: Certain home remedies have also been found beneficial in the treatment of stomatitis. The most important of these is the use of lemon, use of alum and also the usage of mouthwash for different purposes. The remedies are as follows: Taking a tablespoon of lemon juice daily before meals will correct the functioning of the stomach and help cure the condition. The patient should also gargle several times daily with lemon juice mixed in water. This gargle can be prepared by

mixing 20 ml of lemon juice in 100 ml. of hot water. A mouthwash containing a teaspoon each of salt and baking soda in a glass of warm water should be used every two to three hours to keep the mouth as clean as possible. The patient should gargle with alum diluted in hot water. Concentrated solution of alum may also be applied with the help of a swab on the ulcerated spots. Proper oral hygiene is of utmost importance in the treatment of stomatitis. The patient should carefully brush his teeth and gums so as to remove any foul material. He should also take multi-vitamin tables, especially those high in vitamin B complex.

Other helpful methods include taking a hot footbath twice daily. Before taking a hot footbath, a glass of cold water should be taken and the body should be covered with a blanket so as to ensure that no heat or vapour escapes from the footbath. Then, the patient should keep his legs in a tub or bucket filled with hot water at a temperature of 40 to 45°C, where the duration of the bath is anywhere between 5 to 20 minutes. Later, the patient should take a cold shower bath immediately after the bath.

Text E

Bruxism

The cause for bruxism is unknown. Factors that may contribute to the condition include stress, facial or oral trauma, nervous system malfunction, poor diet, and allergies. Alcohol and drug use also increase the occurrence of bruxism.

Children with bruxism usually stop grinding their teeth before adulthood. However, bruxism can affect adults for an indefinite period of time. Adults with bruxism have increased occurrence of grinding during times of stress (e.g., health-related, family-related, or job-related).

Bruxism causes temporomandibular joint syndrome (TMJ), in which the cartilage around the joints of the upper and lower jaws becomes irritated. This irritation can cause pain in the jaw and ears. Headaches associated with joint and muscle strain are common symptoms associated with bruxism.

The occlusal (meeting) surface of the upper and lower teeth can be ground down so much that an imbalance in closure between the left and right sides of the mouth is created, which can result in periodontal disease and structural stress to the tissues and roots of the teeth.

Like most sleep disorders, bruxism affects people other than those with the condition. The sound of teeth grinding can be quite loud and disruptive to bed partners or roommates. As a result, those who must cope with their partner's habitual grinding develop secondary symptoms, like poor sleep. In fact, it is often a partner or family member who detects bruxism.

A dentist usually detects or suspects bruxism when, during a routine checkup, he or she discovers the characteristic wear on the teeth. Wear associated with grinding is most evident on the molars, which are in the back of the mouth. The diagnosis is generally based on the patient's dental history and a dentist's careful reexamination.

There are two primary objectives in the treatment of bruxism: stress reduction and tooth care. Relaxation therapies may reduce stress associated with habitual grinding. Meditation and body-calming activities are thought to reduce the psychological stress that seems to aggravate bruxism. Biofeedback training may reduce the occurrence of nocturnal grinding. Biofeedback programs train people to control their involuntary nervous system with learned responses to fluctuating body conditions. During a training session, a monitoring system emits sound to alert the patient to these fluctuations. Participants then learn to recreate states of relaxation, breathing patterns, and pulse rates that help them relax and achieve a calm emotional state.

Text F

Sedative and hypnotic drugs

A sedative or tranquilizer is a substance that induces sedation by reducing irritability or excitement. Doctors often administer sedatives to patients in order to dull the patient's anxiety related to painful or anxiety-provoking procedures. Although sedatives do not relieve pain in themselves, they can be a useful adjunct to analgesics in preparing patients for surgery, and are commonly given to patients before they are anaesthetized, or before other highly uncomfortable and invasive procedures like cardiac catheterization, colonoscopy or MRI. They increase tractability and compliance of children or troublesome or demanding patients.

All sedatives can cause physiological and psychological dependence when taken regularly over a period of time, even at therapeutic doses. Dependent users may get withdrawal symptoms ranging from restlessness and insomnia to convulsions and death. When users become psychologically dependent, they feel as if they need the drug to function, although physical dependence does not necessarily occur, particularly with a short course of use. In both types of dependences, finding and using the sedative becomes the focus in life. Both physical and psychological dependence can be treated with therapy.

The sedatives include tranquilizers, hypnotics, benzodiazepines, and anti-anxiety medications (anxiolytics).

Hypnotic (also called *soporific*) drugs are a class of psychoactives whose primary function is to induce sleep and to be used in the treatment of insomnia and in surgical anesthesia. When used in anesthesia to produce and maintain unconsciousness, "sleep" is metaphorical and there are no regular sleep stages or cyclical natural states; patients rarely recover from anesthesia feeling refreshed and with renewed energy. Because drugs in this class generally produce dose-dependent effects, ranging from anxiolysis to production of unconsciousness, they are often referred to collectively as sedative-hypnotic drugs. Hypnotic drugs are regularly prescribed for insomnia and other sleep disorders, with over 95% of insomnia patients being prescribed hypnotics in some countries. Many hypnotic drugs are habit-forming and, due to a large number of factors known to disturb the human sleep pattern, a physician may instead recommend alternative sleeping patterns, sleep hygiene, and exercise before prescribing medication for sleep. Hypnotic medication when prescribed should be used for the shortest period of time possible.

Text G

Dental restoration

A dental restoration or dental filling is a dental restorative material used to restore the function, integrity and morphology of missing tooth structure. The structural loss typically results from caries or external trauma. It is also lost intentionally during tooth preparation to improve the aesthetics or the physical integrity of the intended restorative material. Dental restoration also refers to the replacement of missing tooth structure that is supported by dental implants.

Dental restorations can be divided into two broad types: direct restorations and indirect restorations. All dental restorations can be further classified by their location and size. A root canal filling is a restorative technique used to fill the space where the dental pulp normally resides.

The process of preparation usually involves cutting the tooth with special dental burrs, to make space for the planned restorative materials, and to remove any dental decay or portions of the tooth that are structurally unsound. If permanent restoration can not be carried out immediately after tooth preparation, temporary restoration may be performed.

The prepared tooth, ready for placement of restorative materials, is generally called a tooth preparation. Materials used may be gold, amalgam, dental composites, resin-reinforced glass ionomers, porcelain or any number of other materials.

Direct restorations

This technique involves placing a soft or malleable filling into the prepared tooth and building up the tooth before the material sets hard. The advantage of direct restorations is that they usually set quickly and can be placed in a single procedure. Since the material is required to set while in contact with the tooth, limited energy can be passed to the tooth from the setting process without damaging it. Where strength is required, especially as the fillings become larger, indirect restorations may be the best choice.

Indirect restorations

This technique of fabricating the restoration outside of the mouth using the dental impressions of the prepared tooth. Common indirect restorations include inlays and onlays, crowns, bridges, and veneers. Usually a dental technician fabricates the indirect restoration from records the dentist has provided of the prepared tooth. The finished restoration is usually bonded permanently with a dental cement. It is often done in two separate visits to the dentist. Common indirect restorations are done using gold or ceramics.

Text H

Allergy to Amalgam

Amalgam dental fillings are the most frequently used type of fillings in most dental patients, since they have been around longer than the new versions of fillings available today. Amalgam fillings, also known as silver fillings are made up of mercury and metal. Although mercury is known to be highly toxic, The American Dental Association has assured people that it is completely safe for use in the dental office and for use in fillings. Silver fillings are widely used in the practice of filling cavities, but some people, about one to two percent, will experience an allergic reaction to amalgam.

Amalgam fillings are still in practice today and are one of the more chosen versions of fillings, even over their more natural looking counterpart. Amalgams, although silver and unnatural looking when placed in the tooth are chosen over the natural, tooth colored fillings for a few reasons. Amalgams are less expensive than other choices of fillings. They are strong and able to withstand every day use. Silver fillings will last much longer than other fillings offered

Along with the advantages of amalgam fillings come a few disadvantages:

- Doesn't match natural tooth color
- Pieces of healthy tooth sometimes needs to be removed in order to fit the silver filling
- Amalgam's are known to crack
- They can discolor teeth by adding a grayish tint

Some have an allergic reaction to amalgam; or more accurately an allergic reaction to the mercury in the amalgam

Allergic Reactions

It is estimated that an allergic reaction takes place once for every million fillings done. Even though the reported percentage of allergic reactions to amalgam is low, there are some that have and will experience a reaction. A persons reaction type can range from mild to severe. Although both types of reactions are extremely rare, a severe reaction is much more serious.

In a mild reaction, a person may experience the development of a sore inside of the mouth. This sore will be in an area that is in contact with the newly received amalgam filling. This will most likely be an area such as the cheek, tongue, or gums. The sore can range in size and severity. This happens because the person is allergic to the mercury in the filling they have received. A more serious reaction to the filling can cause parts of the mouth to swell on the inside, such as the tongue, cheeks, or even throat. In more serious cases of an allergic reaction or if you feel that the filling is bothersome, you can talk with your dentist about having the amalgam filling removed and replaced with another type of filling.

If you are in need of a filling, make an appointment for a consult with your dentist before having your tooth filled. Make a list with all of your questions and concerns about the filling you are choosing, and ask questions about the other fillings available as well. This will insure you are being fit with the best filling for your needs.

Text I

Dentures

A denture is a removable replacement for missing teeth and nearby gum tissue. Usually made of acrylic, dentures can replace all of a patient's teeth (complete dentures) or only some missing teeth (partial dentures). Denture design and technology has improved, and it is now possible to have aesthetic, functional and well-fitting dentures.

There are many reasons why you might be missing teeth; it is a common complaint at the dental office. When teeth are missing, the above teeth might begin erupting (coming out of their socket) into the empty space. A missing tooth can also result in nearby teeth drifting, or tipping, into the open space. Problems in occlusion (bite) can arise, making it difficult to close the mouth or chew. Speech sounds can also be altered if prominent teeth are missing.

Even with such consequences, not all teeth require replacement. In the case of older patients, most can lead functional lives while missing their second and third molars. Always question your dentist's reasons for wanting to replace a missing tooth that is not affecting your lifestyle.

Denture types

Two types of dentures are available – complete and partial. Complete dentures are used when all teeth are missing in an arch (upper or lower) and partial dentures are for when some natural teeth remain. If your few remaining natural teeth are mobile, heavily decayed or worn down, your dentist may suggest extracting them and opting for complete dentures – always consider the consequence of tooth extractions though. **Complete dentures** are either of the “conventional” or “immediate” type, depending on when they are made. Immediate complete dentures are made in advance so that they can be placed right after your teeth have been extracted. This saves you the embarrassment of being seen without teeth as your gums heal from the extractions. During the healing process though, your bones and gums shrink, so your immediate dentures will require regular adjustments to ensure proper fit – therefore, immediate dentures are a temporary solution. Conventional dentures are made 2 to 3 months after your teeth have been removed and healing is complete. They are better fitting and only need occasional adjustments. The second type of denture is a **partial denture**. A removable partial denture consists of replacement teeth attached to a pink or gum-colored plastic base, which is connected by metal framework that holds the denture in place in the mouth. Partial dentures are used when one or more natural teeth remain in the upper or lower jaw. Clasps built within the partial denture framework circle and hold onto natural teeth for increased retention. They are usually placed around back teeth to keep them hidden. Complete dentures are designed to adapt perfectly to the mouth contour. Adaptation to the bone and gums, as well as the patient’s unconscious neuromuscular control, helps retain complete dentures in the mouth. Because of the tongue, lower complete dentures are more difficult to keep in the mouth than their upper counterpart. Partial dentures are removable but have internal attachments, such as clasps, that attach to adjacent teeth, helping to keep them in the mouth. Partial dentures are therefore considerably more retentive than complete dentures.

Text J

Teeth Sensitivity

Teeth sensitivity is sensation felt when the nerves inside the dentin of the teeth are exposed to the environment. The sensation can range from irritation all the way to intense, shooting pain. This sensitivity can be caused by several factors, including wear, decaying teeth or exposed tooth roots.

Dentine contains many thousands of microscopic tubular structures that radiate outwards from the pulp; these dentinal tubules are typically 0.5-2 microns in diameter. Changes in the flow of the plasma-like biological fluid present in the dentinal tubules can trigger mechanoreceptors present on nerves located at the pulpal aspect thereby eliciting a pain response. This hydrodynamic flow can be increased by cold, air pressure, drying, sugar, sour (dehydrating chemicals), or forces acting onto the tooth. Hot or cold food or drinks, and physical pressure are typical triggers in those individuals with teeth sensitivity.

One cause of sensitive teeth can be traced to nocturnal gastroesophageal reflux disease (acid reflux). Stomach acid can reach the teeth and cause enamel loss and prevent re-mineralization.

Prevention

Before the proper treatment for a patient is defined, it is important to first prevent, modify, eliminate or control etiologic factors such as plaque, improper toothbrushing, and a diet high in fermentable carbohydrates and/or acidic foods.¹

Some examples of acidic foods are fruits, fruit juices and wine whose acids can remove smear layers and open dentinal tubules. Toothbrushing with abrasive toothpaste may abrade the dentin surface which may open up dentinal tubules if combined with erosive agents. One recommendation for patients is to avoid toothbrushing for at least two to three hours after consuming the above mentioned acidic foods or drinks.

There are different options to treat dentine hypersensitivity that can be divided in at-home treatments, those the patient can apply, and in-office treatments, those applied by the dentist.

At-home treatments include desensitizing toothpastes or dentifrices, potassium salts, mouthwashes and chewing gums.

Desensitizing toothpastes containing potassium nitrate have been used since the 1980s while toothpastes with potassium chloride or potassium citrate have been available since at least 2000. It is believed that potassium ions diffuse along the dentinal tubules to inactivate intradental nerves. However, as of 2000, this has not been confirmed in intact human teeth and the desensitizing

mechanism of potassium-containing toothpastes remains uncertain. Since 2000, several trials have shown that potassium-containing toothpastes can be effective in reducing dentine hypersensitivity, although rinsing the mouth after brushing may reduce their efficacy.

Studies have found that mouthwashes containing potassium salts and fluorides can reduce dentine hypersensitivity, although rarely to any significant degree.^[6] As of 2006, no controlled study of the effects of chewing gum containing potassium chloride has been made, although it has been reported as significantly reducing dentine hypersensitivity.

In-office treatments might be much more complex and they may include the application of dental sealants, having fillings put over the exposed root that is causing the sensitivity, or a recommendation to wear a specially made night guard or retainer if the problems are a result of teeth grinding.

APPENDIX 1

IRREGULAR VERBS

V	Translation	V ₂	V ₃
be [bi:]	бути	was, were [wOz, wq:]	been [bi:n]
bear [bFq]	нести; родити	bore [bO:]	born(e) [bO:n]
beat [bi:t]	бити	beat [bi:t]	beaten ['bi:tn]
become [bi'kAm]	ставати	became [bi'kelm]	become [bi'kAm]
begin [bi'gIn]	починати	began [bi'gxn]	begun [bi'gAn]
bring [brIN]	приносити	brought [brO:t]	brought [brO:t]
build [bId]	будувати	built [bIt]	built [bIt]
catch [kxC]	ловити	caught [kO:t]	caught [kO:t]
choose [Cu:z]	вибирати	chose [Couz]	chosen ['Couzn]
come [kAm]	приходити	came [kelm]	come [kAm]
cut [kAt]	різати	cut [kAt]	cut [kAt]
deal [di:l]	мати справу	dealt [delt]	dealt [delt]
do [du:]	робити	did [dId]	done [dAn]
draw [drO:]	тягнути	drew [dru:]	drawn [drO:n]
drink [drINk]	пити	drank [drxNk]	drunk [drank]
eat [i:t]	їсти	ate [et, elt]	eaten ['i:tn]
fall [fO:l]	падати	fell [fel]	fallen ['fO:ln]
feed [fi:d]	кормити	fed [fed]	fed [fed]
feel [fi:l]	відчувати	felt [felt]	felt [felt]
fight [falt]	битися	fought [fO:t]	fought [fO:t]
find [faInd]	знаходити	found [faund]	found [faund]
get [get]	одержувати	got [gOt]	got, gotten [gOtn]
give [glv]	давати	gave [gelv]	given [glvn]
go [gou]	ходити	went [went]	gone [gOn]
grow [grou]	рости	grew [gru:]	grown [groun]
have [hxcv]	мати	had [hxd]	had [hxd]
hear [hlq]	чути	heard [hq:d]	heard [hq:d]
hold [hould]	тримати	held [held]	held [held]
keep [kl:p]	тримати; зберігати	kept [kept]	kept [kept]
know [nou]	знати	knew [nju:]	known [noun]
lead [li:d]	вести	led [led]	led [led]
learn [lq:n]	вчити	learnt [lq:nt], learned	learnt [lq:nt], learned

leave [li:v]	залишати	left [left]	left [left]
lie [laɪ]	лежати	lay [leɪ]	lain [leɪn]
lose [lu:z]	губити	lost [lɒst]	lost [lɒst]
make [meɪk]	робити	made [meɪd]	made [meɪd]
mean [mi:n]	означати, мати на увазі	meant [ment]	meant [ment]
meet [mi:t]	зустрічати	met [met]	met [met]
pay [peɪ]	платити	paid [peɪd]	paid [peɪd]
put [pʊt]	класти	put [pʊt]	put [pʊt]
read [ri:d]	читати	red [red]	red [red]
rise [raɪz]	піднімати	rose [rouz]	risen [ˈri:zn]
run [rʌn]	бігати	ran [rʌn]	run [rʌn]
say [seɪ]	сказати	said [sed]	said [sed]
see [si:]	бачити	saw [sɔ:]	seen [si:n]
send [send]	посилати	sent [sent]	sent [sent]
show [Sou]	показувати	showed [Soud]	showed, shown [Soun]
sit [sɪt]	сидіти	sat [sɛt]	sat [sɛt]
sleep [sli:p]	спати	slept [slept]	slept [slept]
smell [smel]	пахнути	smelt [smelt]	smelt [smelt]
speak [spi:k]	говорити	spoke [spouk]	spoken [ˈspoukn]
spend [spend]	витрачати	spent [spent]	spent [spent]
spread [spred]	простягатися	spread [spred]	spread [spred]
take [teɪk]	брати	took [tu:k]	taken [ˈteɪkn]
teach [ti:C]	вчити	taught [tɔ:t]	taught [tɔ:t]
tell [tel]	розказувати	told [tould]	told [tould]
think [ˈTi:Nk]	думати	thought [ˈTO:t]	thought [ˈTO:t]
understand [ˈʌndq'stʌnd]	розуміти	understood [ˈʌndq'stʌnd]	understood [ˈʌndq'stʌnd]
write [raɪt]	писати	wrote [rouɪ]	written [ˈrɪtn]

APPENDIX 2

SUFFIXES AND TERM-ELEMENTS

NOUN: -age (denotes condition or phenomena) -algia (pain) -ance, -ence (denote condition or phenomena) -er, -or (one who) -ia, -iasis (condition, process) -ian (specialist) -ion (-ation, -tion, -ssion) (denote condition or phenomena) -itis (inflammation) -(i)ty (denotes condition or phenomena) -ist (specialist) -logy (study of) -ment (denotes condition or phenomena) -ness (denotes condition or phenomena) -osis (abnormal condition)	ADJECTIVE: -able (-ible) -al (pertaining to) -ant (-ent) -ar -ary (-ory, -ery) -ful (full of; characterized by; tending to; able to) -ic (pertaining to) -ive (pertaining to) -less (without) -ous (pertaining to) -y ADVERB: -ly
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-th (denotes condition or phenomena) -tomy, -otomy (cut into; incision; section) -ure (denotes condition or phenomena)	VERB: -ate -ize (-ise) -fy
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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
myos	musculus, i <i>m</i>	muscle	м'яз
neur/o	nervus, i <i>m</i>	nerve	нерв
nephr/o	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 <i>n</i>	clot	згусток
tom-	seco, are	to cut	різати
tox/o	venenum, i <i>n</i>	poison	отрута
-trophy	nutritio, onis <i>f</i>	nourishment	живлення
ur/o	urina, ae <i>f</i>	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** ['hedɛlk], **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** – ранорозширювач, 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 опір. 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:

un-	uncomfortable	незручний
	unlock	відчиняти
in-	indirect	непрямий
il-	illogical	нелогічний
ir-	irregular	неправильний
im-	impossible	неможливий
dis-	dislike	не любити
	dishonest	нечесний
mis-	misunderstand	неправильно зрозуміти

Префікси з різним значенням:

re-	rewrite	переписати
over-	overwork	перетрудитися
under-	underpay	недоплачувати
post-	postwar	повоєнний
pre-	pre-war	довоєнний
counter-	counteraction	протидія
ex-	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 вангліїськїї мовї мають два відмінкa: загальний (Common Case) і присвійний (Possesive Case). Загальний відмінок в англїїськїї мовї 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 йде 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, її 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	my his her	mine his hers

	it	its	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 вміє 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?* – Mark and John. – 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 однокладові 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 i -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
The teacher Викладач The student Студент	asks запитує asks запитує	the student студента the teacher викладача	at the lesson. на занятті. at the lesson. 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 (зворотний порядок)	What	does	my friend	read		at home in the evening?
	When	does	my friend	read	books	at home?
	Where	does	my friend	read	books	in the evening?

СПОСОБИ ВИЗНАЧЕННЯ ПРИСУДКА В АНГЛІЙСЬКОМУ РЕЧЕННІ

Присудок в англійському реченні можна визначити за такими ознаками:

а) за позицією у реченні (слідuje 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.

One knows that he works here.

Відомо, що він працює тут.

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 ₂	V ₃	V _{ing} (V ₄)
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 недоконаного 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 смислового 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 прямий. *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 7th 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 study clinical subjects.	Junior medical students do not study clinical subjects.	Do junior medical students study clinical subjects? What subjects do junior medical students study ?
Robert Koch identified the causative agent of tuberculosis.	Medieval doctors did not identify the causative agent of tuberculosis.	Did Robert Koch identify the causative agent of tuberculosis? When did Robert Koch identify the causative agent of tuberculosis?
They will graduate from the university in 2015.	They will not graduate from the university in 2015.	Will they graduate from the university in 2015? When will they graduate from 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 співбесіді (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 заповнюєш 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. Yesterday at noon he was making his report on preleukemic conditions I shall be reading the whole day tomorrow.	They are not waiting for you now. Yesterday at noon he was not making his report on preleukemic conditions. I shall not be reading the whole day tomorrow.	Are they waiting for you now? Was he making his report on preleukemic conditions at noon yesterday? 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 їй 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 бував 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 1st 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 1st of April, by 6 o'clock: *Mary Smith **will have prepared** her report on this problem by 1st 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 have just checked her with X-rays and echocardiograph.	We have not checked her with X-rays and echocardiograph.	Have you checked her with X-rays and echocardiograph. What have you checked her with Who has checked her?
P a s t	I had already drawn up the plan of our research by Tuesday.	I had not drawn up the plan of our research by Tuesday.	Had you drawn up the plan of our research by Tuesday? When had you drawn up the plan of our research by? Who had drawn up the plan of our research by Tuesday?
F u t u r e	Mary Smith will have prepared her report on this problem by 1 st of March.	Mary Smith will have not prepared her report on this problem by 1 st of March.	Will have Mary Smith prepared her report on this problem by 1 st of March? When will have Mary Smith prepared her report on this problem? Who will have prepared 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
Present	am	am	has

	is + V ₃ are	is + being + V ₃ are	+ been + V ₃ have
Past	was + V ₃ were	was + being + V ₃ were	had + been + V ₃
Future	shall + be + V ₃ will		shall + have + been + V ₃ will
Future-in-the-Past	should + be + V ₃ would		should + have + been + V ₃ 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
Simple (Active Voice)	V V _s	V2	shall + V will
Simple (Passive Voice)	am + V ₃ is are	was + V ₃ were	shall + be + V ₃ will
Continuous (Active Voice)	am + Ving is are	was + Ving were	shall + be + Ving will
Continuous (Passive Voice)	am + being + V ₃ is are	was + being + V ₃ were	—
Perfect (Active Voice)	have + V ₃ has	had + V ₃	shall + have + V ₃ Will
Perfect (Passive Voice)	have + been + V ₃ has	had + been + V ₃	shall + have been + V ₃ will

ЗВЕДЕНА ТАБЛИЦЯ ПИТАЛЬНОЇ ФОРМИ INTERROGATIVE FORM

Таблиця 19.

Tense	(1) Questioning word	(2) Auxiliary verb	(3) Subject	(4) Predicate	Example
Present Simple Tense, Active Voice	What	do does	I, you, we they he, she, it	V (study, write)	Do you study? Where does he study ?
Past Simple Tense, Active Voice	Where	did	I, he, she, it, you, we, they	V (study, write)	When did you go to the Academy?

Future Simple Tense, Active Voice	When	shall will	I, we he, she, it, you, they	V (study, write)	Where will they go tomorrow?
Present Simple Tense, Passive Voice	Why	am is are	I he, she, it you, we, they	V₃ (studied, written)	Where is this hospital built ?
Past Simple Tense, Passive Voice	How	was were	I, he, she, it you, we they	V₃ (studied, written)	What medicine was your doctor prescribed ? Were the patients examined ?
Future Simple Tense, Passive Voice	How many	shall will	I, we he, she, it, you, they	be + V₃ (be studied, be written)	When will the polyclinic be closed ?
Present Continuous Tense, Active Voice	How much	am is are	I he, she, it you, we, they	V_{ing} (studying, writing)	What is he writing now? What are you doing ?
Past Continuous Tense, Active Voice		was were	I, he, she, it you, we they	V_{ing} (studying, writing)	Where was a doctor performing on the operation?
Future Continuous Tense, Active Voice		shall will	I, we he, she, it, you, they	be + V_{ing} (be studying, be writing)	What will you be doing at 3 p.m.?
Present Continuous Tense, Passive Voice		am is are	I he, she, it you, we, they	being + V₃ (being studied, being written)	What hospital is your friend being operated on?
Past Continuous Tense, Passive Voice		was were	I, he, she, it you, we they	being + V₃ (being studied, being written)	When was the work being fulfilled ?
Present Perfect Tense, Active Voice		have has	I, you, we they he, she, it	V₃ (studied, written)	What has he received this week?
Past Perfect Tense, Active Voice		had	I, he, she, it, you, we, they	V₃ (studied, written)	How many articles had the student read by 5 o'clock?
Future Perfect Tense, Active Voice		shall will	I, we he, she, it, you, they	have + V₃ (have studied, have written)	What text will Helen have translated by 3 o'clock?
Present Perfect Tense, Passive Voice		have has	I, you, we they he, she, it	been + V₃ (been studied, been written)	Has the text been translated today?
Past Perfect Tense, Passive Voice		had	I, he, she, it, you, we, they	been + V₃ (been studied, been written)	Where had the patient been examined ?
Future Perfect Tense, Passive Voice		shall will	I, we he, she, it, you, they	have + been + V₃ (have been studied, have been written)	When will the hospital have been modernized ?

ДИСЛОВА TO BE TA 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 <i>there</i> , перед іменником без прийменника	<i>My friend is at the laboratory.</i> <i>I was there yesterday.</i> <i>There are many wards in this clinic.</i>	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 <i>of</i>), прикметником або числівником; 2) після підмета-іменника типу <i>aim, plan, function, purpose, task, etc.</i> , перед герундієм.	<i>He is a student. The results of the treatment were satisfactory. There are 15 students in the group.</i> <i>Our task is preventing many diseases.</i>	Перекладається: бути, становити; у теперішньому часі часто випускається. Перекладається: полягати; у теперішньому часі часто випускається.
3. Допоміжне дієслово	1) перед <i>ing-form</i> (<i>Participle I</i>) для утворення часів групи <i>Continuous</i> ; 2) перед <i>Participle II</i> для утворення пасивного стану.	<i>The students are listening to the lecture.</i> <i>They were invited by their teacher.</i>	У цих випадках дієслово <i>to be</i> окремо не перекладається.
4. Частина модальної конструкції	1) перед інфінітивом (дія за заздалегідь наміченим планом, значення обов'язку)	<i>He is to go there.</i> <i>We are to study diseases of inner organs.</i>	Виражає те, що повинне бути.

ОЗНАКИ ФУНКЦІОНАЛЬНОЇ ВІДМІННОСТІ ДІЄСЛОВА *TO HAVE*

Таблиця 21.

Функції	Місце в реченні	Приклади	Особливості перекладу
1. Смислове дієслово	Перед іменником (часто з означеннями)	<i>He has a lot of medical books.</i>	Перекладається: він має..., у нього є.
2. Допоміжне дієслово для утворення часів групи <i>Perfect</i>	Перед дієсловом у формі <i>Participle II</i>	<i>I have read this book.</i> <i>He has been working here for 10 years.</i>	У цих випадках дієслово <i>to have</i> окремо не перекладається
3. Модальне значення необхідності, зумовлене обставинами	Перед дієсловом у формі інфінітиву	<i>You will have to repeat it.</i>	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 йти* (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.*

Тож 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 йти сніг.* *It might*

rain tomorrow. – *Завтра може ніти 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 arise the drug should be 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, щоб пацієнт був прооперований.	Виражає необхідність, пораду, докір тощо. Перекладається: варто, слід, слід було б (потрібно було б).
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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 відповідники – 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 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**: