

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ОДЕСЬКИЙ НАЦІОНАЛЬНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

ЗАТВЕРДЖУЮ
Проректор з науково-педагогічної роботи
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МЕТОДИЧНІ РЕКОМЕНДАЦІЇ
ДО САМОСТІЙНОЇ РОБОТИ ЗДОБУВАЧІВ ВИЩОЇ ОСВІТИ
З НАВЧАЛЬНОЇ ДИСЦИПЛІНИ
ІНОЗЕМНА МОВА ЗА ПРОФЕСІЙНОЮ СПРЯМОВАНІСТЮ

Рівень вищої освіти: другий (магістерський)

Галузь знань: 22 «Охорона здоров'я»

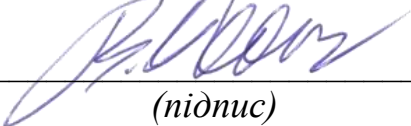
Спеціальність: 221 «Стоматологія»

Освітньо-професійна програма: Стоматологія

Затверджено:

Засіданням кафедри філософії, біоетики та іноземних мов Одеського національного медичного університету

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Завідувач кафедри  (Володимир ХАНЖИ)
(підпис)

Розробники:

Русалкіна Л. Г., доктор педагогічних наук, професор;
Абрамович В. Є., кандидат педагогічних наук, доцент;
Кир'язова О. В., кандидат педагогічних наук, доцент;
Левицька А. І., кандидат педагогічних наук, старший викладач;
Лазор Н. В., старший викладач;
Мокрієнко Е. М., старший викладач;
Циба А. А., викладач;
Бермас О. М., викладач.

ТЕМА 1 «СТОМАТОЛОГІЧНІ СПЕЦІАЛЬНОСТІ»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Стоматологія та її галузі”; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: Dentistry, Endodontics, Paediatric dentistry, Periodontics, Orthodontics, Oral and maxillofacial surgery, Prosthodontics, Oral and maxillofacial radiology.

План

- Вивчити нову лексику і граматику за темою практичного заняття 1;
- Скласти план тексту Dentistry (с. 4-5, впр. 3);
- Знати назви медичних спеціальностей та їх тлумачення англійською мовою;
- Підготувати доповідь на тему «Моя майбутня професія».

1. Питання для самоконтролю:

1.1. *Answer the following questions:*

1. What branch of medicine is called dentistry?
- 2) What does orthodontics deal with?
- 3) What does periodontal treatment involve?
- 4) What is the aim of prosthodontics?
- 5) What is maxillofacial surgery connected with?
- 6) What do endodontists treat?
- 7) What devices does oral and maxillofacial radiology involve?

1.2. *Describe the terms:*

Dentistry, Endodontics, Periodontics, Orthodontics, Oral and maxillofacial surgery, Oral and maxillofacial radiology, Prosthodontics

2. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. *Applying information from the text and ex.5 (p.6) fill in the table:*

BRANCH OF DENTISTRY	SPECIALIST	DESCRIPTION
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2. Study suffixes pertaining to specialists and specialties (ex.8, p.7) and write down your own examples with them.

3. Read the following text, entitle it and make up the questions.

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

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

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

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

- assisting the dentist during a variety of treatment procedures;
- taking and developing dental radiographs (x-rays);
- asking about the patient's medical history and taking blood pressure and pulse;
- preparing and sterilizing instruments and equipment;
- helping patients feel comfortable before, during and after dental treatment;
- providing patients with instructions for oral care following surgery or other dental treatment;
- procedures, such as the placement of a restoration (filling);
- teaching patients appropriate oral hygiene strategies to maintain oral health (e.g., toothbrushing, flossing and nutritional counseling);

- taking impressions of patients' teeth for study casts (models of teeth);
- performing office management tasks that often require the use of a personal computer;
- communicating with patients (e.g., scheduling appointments, answering the telephone);
- helping to provide direct patient care in all dental specialties, including orthodontics, pediatric dentistry, periodontics and oral surgery.

3.1. Insert the missing words given below:

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

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

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

3.2. Translate the following sentences into English:

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

Тестові завдання для самоконтролю:

- Dentistry with diagnosing, preventing, and treating oral diseases.
A) is dealed B) deal C) will deal D) deals E) dealed
- People should have regular dental check-ups no less than
A) once a year B) twice a year C) three times a year D) once a month
E) every day
- is the area of dentistry that focuses on manufacture and use of dentures.
A) surgery B) orthodontics C) prosthodontics D) dental therapy E) physiology
- Until the middle of the 19th century, most dental operations were performed by
A) hairdressers B) priests C) doctors of general medicine D) dentists
E) barbers.
- Tooth decay and gum diseases by the kinds of food we eat.
A) worsens B) are worsened C) worsen D) worsened E) will worsen
- Root canal treatment is employed when the infection has already reached the
A) root B) crown C) pulp D) neck of the tooth E) cementum

7. is performed when conservative treatment is ineffective.
A) scaling B) filling C) extraction of a tooth D) restoration E) prosthesis
8. Dental surgery is concerned the extraction of teeth.
A) by B) with C) of D) within E) to

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
2. Career Paths: Dentistry - Student's Book by Virginia Evans, Jenny Dooley, James Caldwell DDS. Express Publishing, 2016. – 115 p.
3. Medical Terminology. An Illustrated Guide / Barbara Janson Cohen, Shirley A. Jones. Ninth Edition. Jones and Bartlett Learning, 2021, 670 p.
4. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
5. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Електронні інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 2

«Органели. Тканини та оболонки»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.
Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: cell, tissue, membrane, nucleus, cytoplasm, organelle, cytoskeleton, endoplasmic reticulum, Golgi apparatus, lysosome, peroxisomes, mitochondria, ribosome, mitosis, epithelium, connective, nervous, and muscular tissues.

План

- Вивчити нову лексику і граматику за темою практичного заняття 2;
- Прочитати, перекласти та підготувати відповіді до тексту *Tissues* (с. 15-16, впр. 8);
- Вивчити визначення структурних елементів клітини та їх функції і етапи мітозу;
- Розповідати про основні види тканин та їх функції.

1. Питання для самоконтролю:

1.1. *Answer the following questions:*

- 1) How does the structure of a cell vary between unicellular and multicellular organisms?
- 2) What are the primary components of a human cell?
- 3) What functions do human cells perform within the body?
- 4) What are organelles, and what roles do they play within a cell?
- 5) Can you list the major parts of a human cell and describe their functions?
- 6) How are prokaryotic cells different from eukaryotic cells, and what are some examples of each?
- 7) What is the cell cycle, and what are its major phases?
- 8) Explain the process of mitosis and its significance in cell division.
- 9) What is the purpose of tissues in the human body?
- 10) How is histology related to the study of tissues?
- 11) What are the four broad categories of tissues in the human body, and what are their primary functions?
- 12) How does epithelial tissue protect the body from external factors?
- 13) Describe the different types of epithelial tissues and their functions.
- 14) What are the roles of connective tissue in the body, and what are its two

main types?

- 15) How does nervous tissue contribute to the functioning of the nervous system?
- 16) What are the three types of muscle tissues, and where are they found in the body?
- 17) Explain the roles of tissue membranes in the body.

1.2. Describe the terms:

Cell, tissue, membrane, nucleus, cytoplasm, organelle, cytoskeleton, endoplasmic reticulum, Golgi apparatus, lysosome, peroxisomes, mitochondria, ribosome, mitosis, epithelium.

2. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. Solve the crossword:

1.				t							
2.				i							
		3.		s							
			4.	s							
	5.			u							
		6.		e							

1. One of the types of tissue, which can be simple, stratified, pseudostratified, and transitional.
2. Noncellular substance surrounding the cells of connective tissue.
3. Bone-forming cell.
4. One of the types of muscular tissue.
5. Cells in the nervous system other than neurons.
6. The fundamental unit of every living organism.

2.2. Memorize the following terms and find examples for each type of epithelium with different shapes of its cells:

Classification of Epithelium

Types of epithelium	Shape of cells
Simple (single layer of cells)	Squamous Cuboidal Columnar
Stratified (more than one layer of cells)	Squamous Cuboidal Columnar
Pseudostratified (modification of simple epithelium)	Columnar
Transitional (modification of stratified epithelium)	Roughly cuboidal or many surfaced

2.3. Study the additional information about tissues and make up the questions to the underlined words or word combinations:

1. The major types of epithelia are simple and stratified squamous epithelia, simple and stratified cuboidal epithelia, simple, pseudostratified and stratified columnar epithelia, and transitional epithelium.
2. Simple epithelium generally is involved in diffusion, filtration, secretion, or absorption.
3. Squamous cells function in diffusion and filtration.
4. Cuboidal or columnar cells secrete or absorb.
5. Connective tissue cells are blast cells (form the matrix), cyte cells (maintain it), and clast cells (break it down for remodeling).
6. The cells' names end with suffixes according to the cells' functions as blasts, cytes, or clasts.
7. Fibroblasts are cells that form fibrous connective tissue, and chondrocytes, cells that maintain cartilage (*chondro-* means cartilage).
8. Osteoblasts form bone (oste- means bone), osteocytes maintain it, and osteoclasts break it down.

2.4. Read the text and insert words from the brackets into the gaps.

*tissue, skin, connective, muscle, walls, cells, impulses,
organ, epithelial, protection, smooth, internal*

Many different tissues grouped together create an 1. _____, which has a specific job. An example of an organ would be the stomach. Epithelial 2. _____ covers the body surface and forms the lining for most internal cavities. The major function of 3. _____ tissue includes protection, secretion, absorption, and filtration. The 4. _____ is an organ made up of epithelial tissue which protects the body from dirt, dust, bacteria and other microbes that may be harmful. Connective tissues perform a variety of functions including support and 5. _____. Fat tissue, dense fibrous tissue, cartilage, bone, blood, and lymph are all considered 6. _____ tissue. There are three types of muscle tissue: skeletal, 7. _____ and cardiac. Skeletal 8. _____ is a voluntary type of muscle tissue that is used in the contraction of skeletal parts. Smooth muscle is found in the walls of 9. _____ organs and blood vessels. It is an involuntary type. The cardiac muscle is found only in the 10. _____ of the heart and is involuntary in nature. Nerve tissue is composed of specialized 11. _____ and conducts 12. _____ to and from all parts of the body. Nerve cells or neurons are long and string-like.

2.5. Study the text and fill in the table below.

Tissue Membranes

A tissue membrane is a thin layer or sheet of cells that either covers the outside of the body (e.g., skin), lines an internal body cavity (e.g., peritoneal cavity), lines a vessel (e.g., blood vessel), or lines a movable joint cavity (e.g., synovial joint). Two basic types of tissue membranes are recognized based on the primary tissue type composing each: connective tissue membranes and epithelial membranes.

A connective tissue membrane is built entirely of connective tissue. This type of membrane may be found encapsulating an organ, such as the kidney, or lining the cavity of a freely movable joint (e.g., shoulder). When lining a joint, this membrane is referred to as a synovial membrane. Cells in the inner layer of the synovial membrane release synovial fluid, a natural lubricant that enables the bones of a joint to move freely against one another with reduced friction.

An epithelial membrane is composed of an epithelial layer attached to a layer of connective tissue. A mucous membrane, sometimes called a mucosa, lines a body cavity or hollow passageway that is open to the external environment. This type of membrane can be found lining portions of the digestive, respiratory, excretory, and reproductive tracts. Mucus, produced by uniglandular cells and glandular tissue, coats the epithelial layer. The underlying connective tissue, called the lamina propria (literally “own layer”), helps support the epithelial layer.

A serous membrane lines the cavities of the body that do not open to the external environment. Serous fluid secreted by the cells of the epithelium lubricates the membrane and reduces abrasion and friction between organs. Serous membranes are identified according to location. Three serous membranes are found lining the thoracic cavity; two membranes that cover the lungs (pleura) and one membrane that covers the heart (pericardium). A fourth serous membrane, the peritoneum, lines the peritoneal cavity, covering the abdominal organs and forming double sheets of mesenteries that suspend many of the digestive organs.

A cutaneous membrane is a multi-layered membrane composed of epithelial and connective tissues. The apical surface of this membrane exposed to the external environment and is covered with dead, keratinized cells that help protect the body from desiccation and pathogens. The skin is an example of a cutaneous membrane.

<i>Type</i>	<i>Structure</i>	<i>Functions</i>	<i>Examples</i>

Тестові завдання для самоконтролю:

1. Prolonged exposure of a human body to toxic substances has resulted in destruction of the organelles that perform protein synthesis in the hepatocytes. Name these organelles.

- A Ribosomes
- B Lysosomes
- C Peroxisomes
- D Mitochondria

2. Reading of the hereditary information encoded within a gene begins with pre-mRNA synthesis on a fragment of DNA matrix chain. Where does this process occur in the eukaryotic cells?

- A Golgi complex
- B Centrosomes
- C Cytoplasm
- D Nucleus
- E Ribosome

3. Cytochemical investigation revealed high content of hydrolytic enzymes in the cytoplasm. This phenomenon indicates the activity of the following organelles:

- A Endoplasmic reticulum
- B Lysosomes
- C Mitochondria
- D Polysomes
- E Cell center

4. In an experiment, a myotome was destroyed in a rabbit fetus. This manipulation will result in malformation of the following structure:

- A Skeletal muscles
- B Serous membranes
- C Dermal connective tissue
- D Axial skeleton
- E Smooth muscles

5. An electronic micrograph presents a cell that has no nucleole and nuclear membrane. Chromosomes has free position, centrioles migrate to the poles. What phase of cell cycle is it typical for?

- A Telophase
- B Anaphase
- C Metaphase
- D Prophase
- E Interphase

6. The symptoms of regeneration process (callus) on the place of fracture were revealed in the histologic specimen of tubular bone. What tissue forms this structure?

- A Fibrous bone tissue
- B Loose connective tissue
- C Reticular tissue
- D Epithelial tissue
- E Lamellar bone tissue

7. Examination of a histological specimen of tubular bone revealed signs of regeneration process (callus).

What tissue is this structured formed of?

- A Lamellar osseous
- B Loose connective
- C Reticular
- D Epithelial
- E Rough fibrous osseous

8. An electronic microphotography represents a cell without nucleoli and nuclear membrane. Chromosomes are loosely scattered, centrioles migrate to the poles. What phase of cell cycle is it?

- A Prophase
- B Anaphase
- C Metaphase
- D Telophase
- E Interphase

9. Electron microscopic study of a cell revealed roundish bubbles confined by a membrane and containing a lot of various hydrolytic enzymes. It is known that these organelles provide intracellular digestion. What are they?

- A Ribosomes
- B Centrosomes
- C Endoplasmic reticulum
- D Lysosomes
- E Mitochondria

10. A histological specimen presents the tissue that contains cells having no processes and a few tens of nuclei. Each of cell surfaces has a corrugated zone that provides secretion of hydrolytic elements. What tissue is it?

- A Osseous tissue
- B Cartilaginous tissue
- C Epithelial tissue
- D Nerve tissue
- E Muscular tissue

Список рекомендованої літератури:

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1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

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2. English for Dentistry Students. Step 1. Anatomy: Student's Book / N. V. Kuchumova, L. V. Manyuk, O. H. Vasylenko; edited by P. A. Sodomora. – Danylo Halytsky Lviv National Medical University, 2019. – 102 p.
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5. Anatomy and Physiology I: An Interactive Histology Atlas / K. Wiles, Ch. Wilson, J. M. Ramiro-Diaz, G. Kallifatidis, and S. Mukhopadhyay. Augusta University, 2024. URL: <https://pressbooks.pub/aandp1histologyatlasandworkbook/>
6. Medical Terminology. An Illustrated Guide / Barbara Janson Cohen, Shirley A. Jones. Ninth Edition. Jones and Bartlett Learning, 2021, 670 p.
7. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
8. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Britannica: <https://www.britannica.com/science/cell-biology>
4. Building a Medical Terminology Foundation: <https://ecampusontario.pressbooks.pub/medicalterminology>
5. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
6. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
7. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 3

«Органи та системи»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.
Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: human body, head, trunk, chest, abdomen, upper extremity, lower extremity, homeostasis, Respiratory, Reproductive, Integumentary, Muscular, Endocrine, Urinary, Digestive, Lymphatic, Cardiovascular, Skeletal, Immune, Nervous systems.

План

- Вивчити нову лексику і граматику за темою практичних занять 3 та 4.
- Підготувати розповідь про тіло людини за наступними пунктами:
 - a) major parts of the human body;
 - b) major parts of the upper extremity;
 - c) major parts of the lower extremity;
 - d) vital organs of the human body.
- Підготувати розгорнутий опис поняття *Systems of the body* (впр.16, с. 43-44).
- Вивчити назви систем людського організму і органи, що до них належать.
- Розповідати про основні функції систем.

3. Питання для самоконтролю:

1.1. *Answer the following questions:*

1. What is the human body?
2. What does the human body consist of?
3. What are the principal parts of the human body?
4. What parts does the head consist of?
5. What does the face include?
6. Where is the brain located?
7. What is the organ of taste and sight?
8. What is the function of the eyes?
9. What organ do we breathe through?
10. What are the principal organs in the chest?
11. What organs are there in the abdomen?

12. What does the upper extremity consist of?
13. What does the lower extremity consist of?
14. What supports the soft parts and protects the organs from injury?
15. What sciences study the human body?
16. What are the major body systems of the human?
17. What is the main contribution of each system?
18. What are the major organs of the lymphatic system?
19. What are the functions of the integumentary system?
20. What physiological process helps to maintain the internal systems of the body at equilibrium?
21. What does the well-being of any person depend upon?

1.2. Describe the terms:

Human body, head, trunk, chest, abdomen, upper extremity, lower extremity, heart, lungs, gullet, stomach, liver, kidneys, intestines, spleen, homeostasis, Respiratory, Reproductive, Integumentary, Muscular, Endocrine, Urinary, Digestive, Lymphatic, Cardiovascular, Skeletal, Immune, Nervous systems.

4. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. Do ex. 7 and 10 (pp. 38&40) and fill in the table below. Learn each system's description.

<i>System Name</i>	<i>Organs</i>	<i>Functions</i>

2.2. Correct mistakes in the following sentences:

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

2.3. Listening and watching the video about the [Human body](#) from National Geographic. Answer the questions:

1. How many major systems are in the human body? Name them.
2. What is a human body?
3. How many bones are in the adult people?
4. How many kinds of muscles are in the muscular system?
5. What do we know about integumentary system?

6. What can you say about the cardiovascular system?
7. What are the main organs in the urinary system?
8. Which organ helps us in the process of breathing?

Тестові завдання для самоконтролю:

<https://www.britannica.com/quiz/the-human-body>

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с.
(комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
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7. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
8. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Britannica: <https://www.britannica.com/science/human-body>
4. Building a Medical Terminology Foundation: <https://ecampusontario.pressbooks.pub/medicalterminology>
5. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
6. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
7. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 4

«Опорно-руховий апарат людини. Кістки та суглоби. М'язи скелета»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: skeleton, bone, joint, tendon, ligament, cartilage, muscle,

План

- Вивчити нову лексику і граматику за темою практичного заняття 5;
- Прочитати, перекласти та підготувати відповіді до тексту *Skeletal muscles*;
- Знати назви, положення, структуру та функції кісток;
- Розповідати про типи м'язів скелета і їх функції.

1. Питання для самоконтролю:

1.1. *Answer the following questions:*

1. What does the musculoskeletal system consist of?
2. What is the function of the musculo-skeletal system?
3. What is the skeleton constructed of?
4. Why are bones important? What are their main functions?
5. What is the function of the skull?
6. What parts can the skeleton be divided into?
7. What does the axial skeleton comprise?
8. What parts does the appendicular skeleton consist of?
9. How many bones are there in the skull of an adult?
10. What is a ligament?
11. What is the function of a tendon?
12. What is the function of a cartilage?

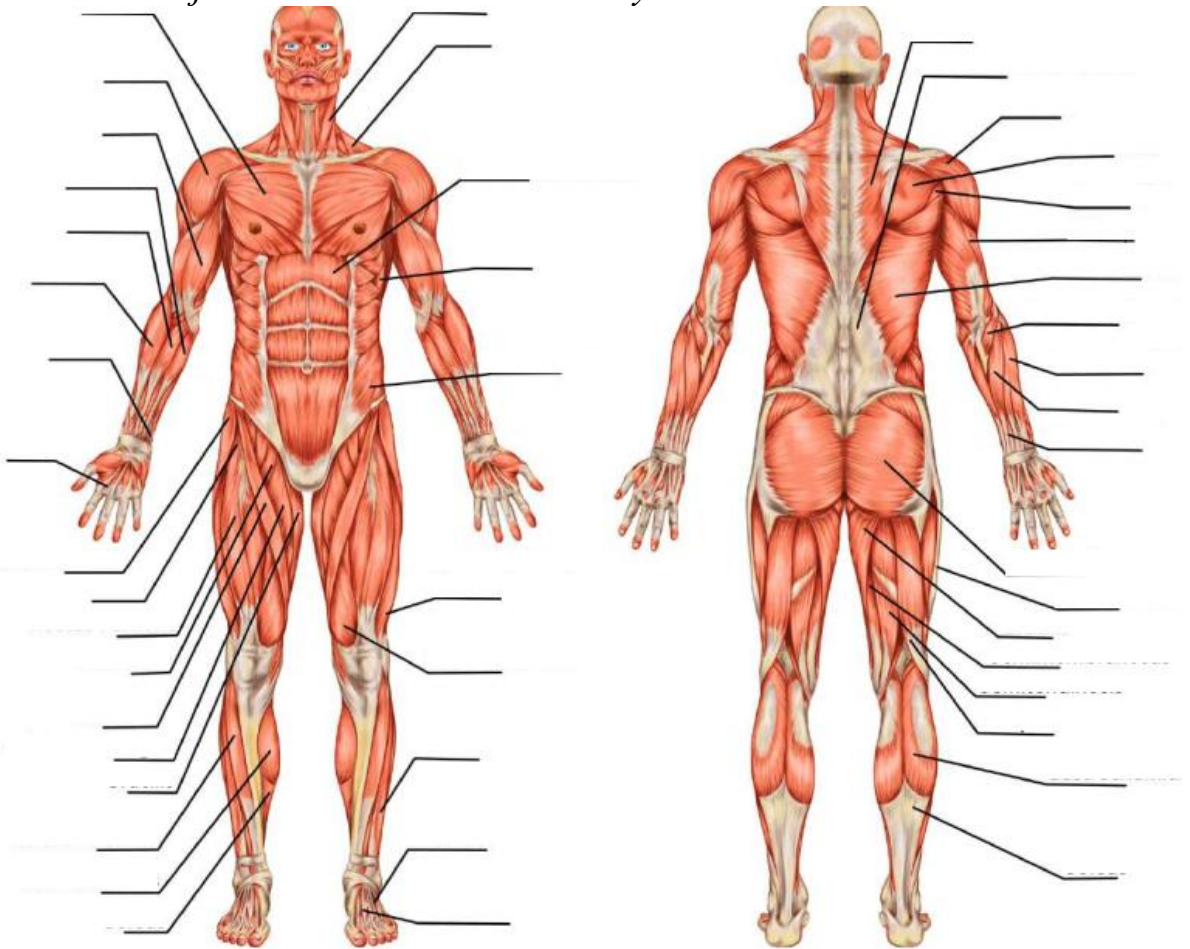
1.2. *Describe the terms:*

skeleton, bone, joint, tendon, ligament, cartilage, muscle

2. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. Label the major muscles in the human body:



2.2. Read the text:

Skeletal Muscles: Types and Their Action

Skeletal muscles are voluntary muscles that attach to bones and allow movement of the body. They are controlled by the somatic nervous system. Each skeletal muscle consists of bundles of muscle fibres made of actin and myosin filaments, which work together to produce contraction.

Structurally, skeletal muscles are striated because the arrangement of filaments creates a striped appearance under the microscope. Functionally, skeletal muscle fibres may be classified into two main types: slow-twitch and fast-twitch fibres.

Slow-twitch muscle fibres (Type I) contract slowly but can sustain activity for a long period. They contain large amounts of myoglobin and mitochondria and rely mainly on aerobic metabolism. These fibres are associated with endurance activities such as maintaining posture or long-distance running.

Fast-twitch muscle fibres (Type II) contract quickly and with more power, but they fatigue faster. They rely mainly on anaerobic metabolism and contain less myoglobin. These fibres are used in short, intense activities such as sprinting or

lifting heavy objects. Fast-twitch fibres can be further divided into Type IIa (intermediate) and Type IIb (rapid-fatiguing).

The action of skeletal muscles depends on their role in movement. A muscle that causes the main movement is called the agonist or prime mover. The muscle that opposes this movement is called the antagonist. Other muscles, known as synergists, support the agonist by reducing unnecessary movement. Additionally, fixators stabilise the origin of the agonist so it can act efficiently.

Examples include the biceps brachii acting as an agonist during elbow flexion, while the triceps brachii acts as an antagonist. During the same movement, muscles of the shoulder act as fixators.

2.3. Answer the questions:

What type of nervous system controls skeletal muscles?

Why do skeletal muscles appear striated under a microscope?

What is the main difference between slow-twitch and fast-twitch muscle fibres?

In which activities are slow-twitch fibres mostly used?

What is the role of antagonistic muscles?

2.4: Fill in the gaps.

Use the words: agonist, mitochondria, anaerobic, slow-twitch, voluntary

1. Skeletal muscles are _____ muscles.
2. _____ muscle fibres contain more _____ and are adapted for endurance.
3. Fast-twitch fibres mainly use _____ metabolism.
4. The prime mover in a movement is called the _____.

2.5. Match the muscle role to the correct description.

- A. Agonist
- B. Antagonist
- C. Synergist
- D. Fixator

<i>Description</i>	<i>Letter</i>
Supports and assists movement	
Produces the main movement	
Stabilises a joint during movement	
Works against the action of another muscle	

2.6. Writing.

Write a short paragraph (5–7 sentences) describing how the biceps and triceps work together during elbow flexion and extension.

Тестові завдання для самоконтролю:

1. The main function of the musculoskeletal system is:
 - A. Digestion
 - B. Movement, support, and protection
 - C. Blood filtration
 - D. Hormone production

2. The tissue that connects muscle to bone is called:
 - A. Ligament
 - B. Tendon
 - C. Cartilage
 - D. Fascia

3. The structural unit of skeletal muscle responsible for contraction is the:
 - A. Nephron
 - B. Sarcomere
 - C. Osteon
 - D. Neuron

4. Which type of muscle is voluntary and striated?
 - A. Smooth muscle
 - B. Cardiac muscle
 - C. Skeletal muscle
 - D. Mixed muscle

5. The axial skeleton includes:
 - A. Skull, vertebral column, and rib cage
 - B. Arms and legs
 - C. Pelvis and limbs
 - D. Shoulder and pelvic girdles

6. Bones are mainly composed of:
 - A. Keratin
 - B. Calcium and collagen
 - C. Lipids
 - D. Haemoglobin

7. Synovial fluid is found in:
 - A. The stomach
 - B. Movable joints
 - C. The brain
 - D. Skeletal muscles

8. Osteoblasts are cells that:

- A. Break down bone
- B. Produce bone tissue
- C. Produce cartilage
- D. Control voluntary muscle contraction

9. Which muscle type controls posture and locomotion?

- A. Smooth muscle
- B. Skeletal muscle
- C. Cardiac muscle
- D. Elastic muscle

10. Fast-twitch skeletal muscle fibres are adapted for:

- A. Endurance activities
- B. Slow and continuous contraction
- C. Rapid, powerful contraction
- D. Maintaining posture

11. The largest bone in the human body is the:

- A. Humerus
- B. Tibia
- C. Femur
- D. Scapula

12. A joint where bones move freely in many directions (e.g., shoulder) is called a:

- A. Hinge joint
- B. Fixed joint
- C. Ball-and-socket joint
- D. Pivot joint

13. The protein storing oxygen in muscle cells is:

- A. Myoglobin
- B. Collagen
- C. Keratin
- D. Elastin

14. The muscle that produces the main movement is called the:

- A. Antagonist
- B. Agonist
- C. Fixator
- D. Synergist

15. A condition characterised by reduced bone density, especially in older adults, is:

- A. Arthritis
- B. Osteoporosis

C. Myopathy
D. Scoliosis

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

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3. Britannica: <https://www.britannica.com/science/cell-biology>
4. Building a Medical Terminology Foundation: <https://ecampusontario.pressbooks.pub/medicalterminology>
5. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
6. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
7. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 5

«Серце та судини. Кровообіг»

Мета: закріплення базової лексики з анатомії та фізіології серцево-судинної системи людини, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою. Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати вміння та навички висловлювати основну думку з теми.

Основні поняття: heart, atrium, ventricle, septum, valve, vessel, artery, vein, endocardium, pericardium, myocardium, epicardium, pulmonary and systemic circulation, cardiac cycle, systole, diastole, sinoatrial node.

План

- Вивчити нову лексику і граматику до практичних занять 6 та 7.
- Підготувати розгорнутий опис понять “atrium”, “ventricle” за наступними пунктами:
 1. definition
 2. location
 3. structure
 4. general characteristics
 5. function
- Вивчити структуру і функції серця та назви судин.
- Розповідати про цикли роботи серця та систему кровообігу.

1. Питання для самоконтролю:

1.1. Answer the following questions:

1. What does the cardiovascular system consist of?
2. What is the function of the cardio-vascular system?
3. What does the word cardiovascular stand for?
4. Where is the heart located?
5. What does each half of the heart consist of?
6. What are the heart functions as a pump in the circulatory system?
7. What is the systemic circulation?
8. How many beats per minute does the heart make?
9. What is the total weight of the blood pumped by the heart daily?
10. What is systole?
11. What is diastole?
12. How many phases does each cardiac cycle consist of?
13. What is the role of ventricles?

14. How long does the heart muscle contract?
15. What does the rate of heartbeat depend on?

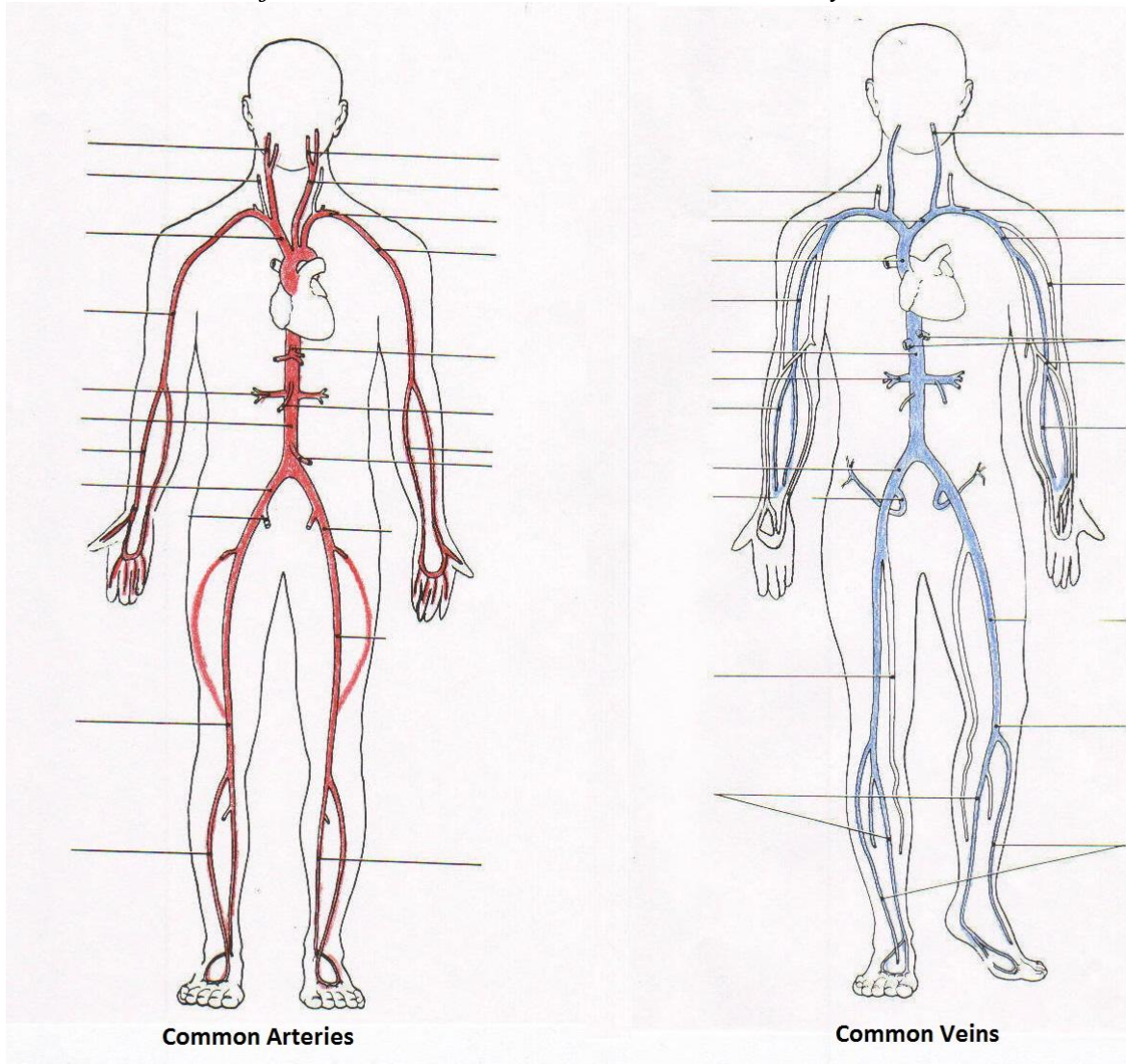
1.2. *Describe the terms:*

heart, atrium, ventricle, septum, valve, vessel, artery, vein, endocardium, pericardium, myocardium, epicardium, pulmonary and systemic circulation, cardiac cycle, systole, diastole, sinoatrial node.

1. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. *Label the major arteries and veins in the human body:*



2.2. *Fill in the gaps with the following words (arteries, veins, oxygenated, myocardium, atrium, ventricle, valve, capillaries, pulse, systole, diastole, aorta, circulation, plasma, blood pressure):*

1. The heart consists of four chambers: two _____ and two _____.
2. _____ carry blood away from the heart.
3. _____ return blood to the heart.
4. The contraction phase of the heart is called _____.

5. The relaxation phase of the heart is called _____.
6. The _____ is the strongest chamber of the heart and pumps blood to the body.
7. Tiny blood vessels where gas exchange occurs are called _____.
8. The largest artery in the human body is the _____.
9. The heart muscle is called the _____.
10. The rhythmic beating of the heart that can be felt in arteries is called _____.
11. Blood with high oxygen content is called _____ blood.
12. Structures preventing backflow of blood in the heart are called a _____.
13. The system that transports blood throughout the body is called the _____ system.
14. The liquid part of the blood is called _____.
15. The force of blood pushing against artery walls is known as _____.

2.3. Write 5–7 sentences describing the pathway of blood through the heart and body.

Тестові завдання для самоконтролю:

1. The heart is located in the:
 - A. Abdomen
 - B. Thoracic cavity
 - C. Brain
 - D. Pelvis
2. The largest blood vessel is:
 - A. Vein
 - B. Pulmonary artery
 - C. Aorta
 - D. Capillary
3. The left ventricle pumps blood to:
 - A. The lungs
 - B. The body
 - C. The brain only
 - D. The right atrium
4. Blood flows from veins into the:
 - A. Ventricles
 - B. Arteries
 - C. Atria
 - D. Capillaries
5. Gas exchange takes place in:
 - A. Arteries
 - B. Capillaries

- C. Veins
- D. Aorta

6. Valves in the heart prevent:

- A. Blood clotting
- B. Backflow of blood
- C. Heartbeat
- D. Gas exchange

7. The heart chamber that receives blood from the lungs is the:

- A. Right atrium
- B. Left atrium
- C. Right ventricle
- D. Left ventricle

8. The contraction phase of the heartbeat is known as:

- A. Diastole
- B. Systole
- C. Pulse
- D. Filtration

9. The major artery transporting blood to the lungs is:

- A. Aorta
- B. Carotid artery
- C. Pulmonary artery
- D. Femoral artery

10. Which type of vessel carries blood back to the heart?

- A. Arteries
- B. Veins
- C. Capillaries
- D. Aorta

11. Oxygenated blood returns to the heart via:

- A. Pulmonary artery
- B. Pulmonary vein
- C. Superior vena cava
- D. Aorta

12. The heart muscle is called:

- A. Endocardium
- B. Myocardium
- C. Neuron
- D. Pericardium

13. The pulse is the result of:
- A. Relaxation of veins
 - B. Contraction of arteries
 - C. Pressure in arteries
 - D. Air in capillaries
14. The circulatory system transports:
- A. Blood
 - B. Nutrients
 - C. Oxygen
 - D. All of the above
15. The right side of the heart pumps blood to:
- A. The body
 - B. The brain
 - C. The lungs
 - D. The kidneys

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3. Britannica: <https://www.britannica.com/science/human-body>
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6. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
7. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 6

«Склад крові. Групи крові та її переливання.»

Мета: закріплення базової лексики зі складу та функцій крові і її компонентів, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.
Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: blood, erythrocyte, leukocyte, platelet, plasma, ABO system, antigen, antibody, blood transfusion.

План

- Вивчити нову лексику і граматику до практичного заняття 8.
- Вивчити склад крові та функції її складових.
- Розповідати про особливості визначення груп крові та її переливання.

2. Питання для самоконтролю:

1.1. Answer the following questions:

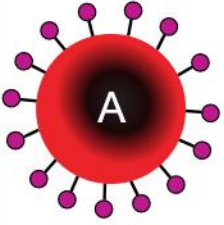
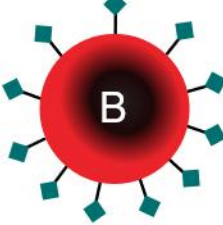
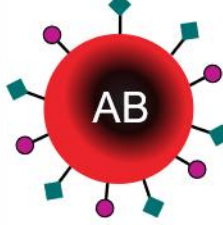
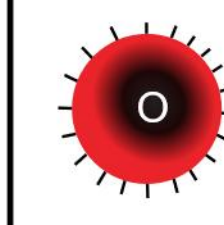
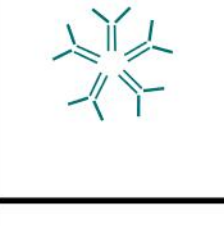
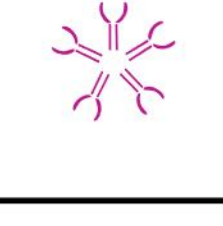
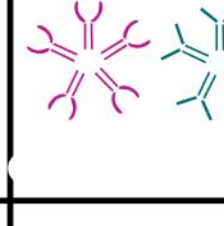
1. What is blood?
2. What is blood composed of?
3. What kinds of blood cells are there?
4. How much blood does the average person have?
5. What are RBCs?
6. What are the functions of red blood cells?
7. What is hemoglobin?
8. What is the function of white blood cells?
9. What is the function of platelets?
10. What is blood plasma?
11. When did the Austrian scientist Karl Landsteiner discover human blood groups?
12. What are the two main ways to classify blood groups?
13. What are the differences in human blood due to?
14. Where are located antigens and antibodies?
15. What are the main characteristics of blood group O?
16. What can mixing blood from two individuals lead to?
17. What people are called "universal donors" and "universal receivers"?
18. Why donors should be periodically tested for infectious diseases?

1.2. Describe the terms: blood, erythrocyte, leukocyte, platelet, plasma, antigen, antibody, blood clumping, universal donors and receivers.

2. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. Complete the table:

	Group A	Group B	Group AB	Group O
Red blood cell type				
Antibodies in plasma				
Antigens in red blood cell				

2.2. Match the terms with their definitions:

1. blood transfusion	a) substance that is capable of stimulating an immune response, specifically activating lymphocytes, which are the body's infection-fighting white blood cells.
2. blood groups	b) a protective protein produced by the immune system in response to the presence of a foreign substance, called an antigen.
3. Rh system.	c) is a common procedure in which donated blood or blood components are given to you through an intravenous line
4. ABO system	d) people with type O- red blood cells. Their red blood cells can be given to any other blood type
5. universal donor	e) is used to denote the presence of one, both, or neither of the A and B antigens on erythrocytes
6. universal receiver	f) is a classification of blood, based on the presence and absence of antibodies and inherited antigenic substances on the surface of red blood cells
7. antibody	g) system for classifying blood groups according to the presence or absence of the Rh antigen
8. antigen	h) people with blood group AB Rh+

2.3. Arrange the following sentences in the correct order to explain the term

“blood groups”:

___ Mixing blood from two individuals can lead to blood clumping or agglutination.

___ The differences in human blood are due to the presence or absence of certain protein molecules called antigens and antibodies.

___ In 1901 the Austrian scientist Karl Landsteiner discovered human blood groups

___ Karl Landsteiner discovered that blood clumping was an immunological reaction which occurs when the receiver of a blood transfusion has antibodies against the donor's blood cells.

___ The two main ways to classify blood groups are the ABO (A, B, AB, O) system and the Rh (Rhesus positive +, Rhesus negative -) system.

2.4. Arrange the following sentences in the correct order to explain the term “blood transfusions”:

___ Transfusions can spread disease from donor to recipient that is why donors should be periodically tested for infectious diseases.

___ The accumulated red cells can obstruct blood vessels and stop the circulation of blood to various parts of the body.

___ For a blood transfusion to be successful, ABO and Rh blood groups must be compatible between the donated blood and the recipient.

___ People with blood group O Rh - are called "universal donors" and people with blood group AB Rh+ are called "universal receivers."

___ Mixing blood from two individuals can lead to blood clumping or agglutination.

Тестові завдання для самоконтролю:

1. The main function of red blood cells is to:

- A. Fight infection
- B. Carry oxygen
- C. Produce hormones
- D. Form clots

2. The liquid part of blood is called:

- A. Plasma
- B. Haemoglobin
- C. Platelets
- D. Oxygen

3. White blood cells are part of the:

- A. Digestive system
- B. Nervous system
- C. Immune system
- D. Respiratory system

4. Haemoglobin is found in:
- A. Platelets
 - B. Plasma
 - C. White blood cells
 - D. Red blood cells
5. Platelets help:
- A. Transport oxygen
 - B. Fight bacteria
 - C. Stop bleeding
 - D. Replace plasma
6. The most abundant component of blood by volume is:
- A. Plasma
 - B. Nutrients
 - C. Haemoglobin
 - D. Hormones
7. Blood transports waste products such as:
- A. Vitamins
 - B. Oxygen
 - C. Carbon dioxide
 - D. Glucose
8. Blood protects the body primarily through:
- A. Plasma
 - B. White blood cells
 - C. Haemoglobin
 - D. Hormones
9. A person may need a transfusion when they:
- A. Sleep
 - B. Have a severe blood loss
 - C. Eat food
 - D. Exercise
10. Which of the following is not a component of blood?
- A. Bones
 - B. Plasma
 - C. Platelets
 - D. Red blood cells

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
2. English for Dentistry Students. Step 1. Anatomy: Student's Book / N. V. Kuchumova, L. V. Manyuk, O. H. Vasylenko; edited by P. A. Sodomora. – Danylo Halytsky Lviv National Medical University, 2019. –102 p.
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6. Medical Terminology. An Illustrated Guide / Barbara Janson Cohen, Shirley A.Jones. Ninth Edition. Jones and Bartlett Learning, 2021, 670 p.
7. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
8. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Britannica: <https://www.britannica.com/science/human-body>
4. Building a Medical Terminology Foundation: <https://ecampusontario.pressbooks.pub/medicalterminology>
5. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
6. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
7. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 7

«Дихальні шляхи та будова легень. Фізіологія дихання.»

Мета: закріплення базової лексики з анатомії та фізіології дихальної системи, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.
Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: blood, erythrocyte, leukocyte, platelet, plasma, ABO system, antigen, antibody, blood transfusion.

План

- Вивчити нову лексику і граматику до практичних занять 9 та 10.
- Вміти описувати структуру і функції дихальних шляхів та легень.
- Підготувати доповідь за темою на вибір: “Respiratory Disorders”, “Famous Scientists with Asthma”, “Air Pollution“ тощо.

3. Питання для самоконтролю:

1.1. Answer the following questions:

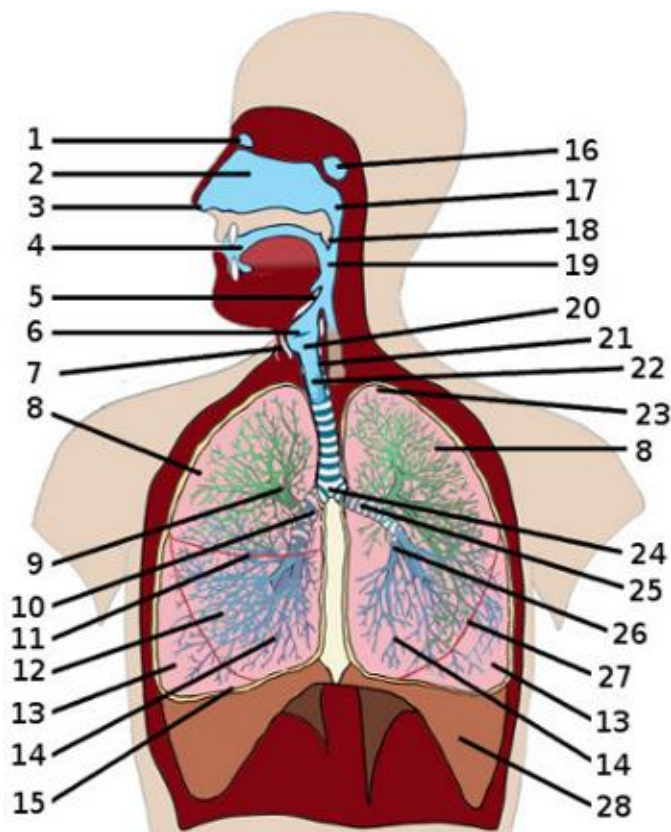
1. What are the main parts of the respiratory system?
2. What process takes place in the lungs?
3. Why is the left lung smaller than the right one?
4. What is the respiratory system responsible for?
5. What are the lungs? What is their vital capacity?
6. What is the respiratory system responsible for?
7. What is the function of the nose?
8. How do people expel foreign matters from the respiratory tract?
9. What do cilia do?
10. What is hemoglobin?

1.2. Describe the terms: lungs, airways, alveolus, bronchus, pharynx, larynx, diaphragm, pleura, trachea, respiration, carbon dioxide, oxygen, gas exchange.

3. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. Label the organs of the respiratory system:



2.2. Fill in the gaps with the words from the table. Make up 5–7 questions to the text.

mediastinal, septum, diaphragm, paired, lobes, trachea, heart, pulmonary, notch, bronchiole, pleurae, fissures, branch, volume

Gross Anatomy of the Lungs

The lungs are pyramid-shaped, _____ organs that are connected to the _____ by the right and left bronchi; on the inferior surface, the lungs are bordered by the diaphragm. The lungs are enclosed by the _____, which are attached to the mediastinum. The right lung is shorter and wider than the left lung, and the left lung occupies a smaller _____ than the right. The cardiac _____ allows space for the _____. The apex of the lung is the superior region, whereas the base is the opposite region near the _____. The costal surface of the lung borders the ribs. The _____ surface faces the mid line.

Each lung is composed of smaller units called _____. _____ separate these lobes from each other. The right lung consists of three lobes: the superior, middle, and inferior lobes. The left lung consists of two lobes: the superior and inferior lobes. A _____ lobule is a subdivision formed as the bronchi _____ into bronchioles. Each lobule receives its own large _____ that has multiple branches. An interlobular _____ is a wall, composed of connective tissue, which separates lobules from one another.

2. Match the terms with their definitions:

- A. Gas exchange
- B. Alveoli
- C. Diffusion
- D. Diaphragm
- E. Ventilation
- F. Chemoreceptors
- G. Respiratory centre
- H. Oxygen saturation

1. The movement of oxygen and carbon dioxide between the lungs and the bloodstream.
2. Tiny air sacs in the lungs where gas exchange occurs.
3. Movement of molecules from an area of higher concentration to an area of lower concentration.
4. A dome-shaped muscle responsible for respiratory movements.
5. The process of moving air into and out of the lungs.
6. Cells that detect changes in carbon dioxide, oxygen and pH levels.
7. A region in the brain that regulates breathing rate and depth.
8. The percentage of haemoglobin carrying oxygen.

3. *Complete the sentences using the box below.*

(alveoli, diffusion, diaphragm, carbon dioxide, chemoreceptors, ventilation, oxygen, brainstem)

1. The main muscle responsible for breathing is the _____.
2. Gas exchange occurs in the _____.
3. _____ allows gases to move from high to low concentration.
4. The respiratory centres are located in the _____.
5. During breathing, _____ enters the body and _____ leaves the body.
6. _____ control the rate of breathing by detecting changes in blood gases.
7. The movement of air into and out of the lungs is called _____.

Тестові завдання для самоконтролю: [*Respiratory system*](#)

1. The respiratory system allows oxygen to enter the blood. The oxygen is necessary for cellular production of _____.
 - A) ATP
 - B) carbon dioxide
 - C) glucose
 - D) protein
2. Pulmonary ventilation is also known as:
 - A) breathing
 - B) cellular respiration
 - C) external respiration
 - D) internal respiration
3. Exchange of gases between the air and blood is _____ and the exchange of gases between blood and tissue fluid is _____.

- A) external respiration; internal respiration
 - B) external respiration; ventilation
 - C) internal respiration; external respiration
 - D) ventilation; internal respiration
4. Identify the function of the mucous membrane lining respiratory airways.
- A) clean, warm and moisten air.
 - B) exchange gases and warm and moisten air.
 - C) exchange gases and clean and warm air.
 - D) exchange gases and moisten and warm air.
5. Identify the structures that aid in the cleansing of the air.
- A) blood vessels, cilia and mucous
 - B) blood vessels, cilia and coarse nasal hairs
 - C) blood vessels coarse nasal hairs and mucus
 - D) cilia, coarse nasal hairs and mucous
6. The function of the nasal conchae is to increase surface area:
- A) for gas exchange.
 - B) for smell.
 - C) for cleansing, moisturizing, and warming the air.
 - D) bring in more air.
7. Identify structures of the upper respiratory tract.
- A) Alveoli, nasal cavity, pharynx and trachea.
 - B) Bronchus, nasal cavity, pharynx and larynx.
 - C) Nasal cavity, pharynx, glottis and larynx.
 - D) Trachea, nasal cavity pharynx and larynx.
8. Identify the sections of the pharynx in order as air is inhaled.
- A) Laryngopharynx, nasopharynx and oropharynx
 - B) Nasopharynx, laryngopharynx and oropharynx
 - C) Nasopharynx, oropharynx and laryngopharynx
 - D) Oropharynx, nasopharynx and laryngopharynx
9. Identify the region(s) of the pharynx that serves as a passageway for air only.
- A) Laryngopharynx
 - B) Nasopharynx
 - C) Oropharynx
 - D) Laryngopharynx and nasopharynx
10. Identify the structure that keeps food and drink from entering the lower respiratory tract.
- A) nasal conchae
 - B) tonsils
 - C) tongue
 - D) epiglottis
11. The "Adam's Apple" is also known as the:
- A) epiglottis of the larynx
 - B) Laryngopharynx of pharynx
 - C) thyroid cartilage of the larynx

- D) trachea
12. The voice box is also called the _____.
A) bronchus
B) larynx
C) pharynx
D) trachea
13. The tonsils are part of the:
A) endocrine system.
B) digestive system.
C) lymphatic system.
D) respiratory system.
14. The windpipe is also known as the _____.
A) bronchus
B) epiglottis
C) pharynx
D) trachea
15. The C-shaped cartilaginous rings around the trachea are open posteriorly to:
A) allow for expansion of the esophagus during swallowing
B) allow the vocal cords to relax
C) prevent food from entering the nasal cavity during swallowing
D) prevent food from entering the trachea
16. When the tension on the vocal cords increase, the glottis becomes _____ and the pitch of the voice becomes _____.
A) more narrow; higher
B) more narrow; lower
C) wider; higher
D) wider; lower
17. What structures allow the trachea and bronchi to stay open all the time?
A) cilia
B) C-shaped cartilage rings
C) glottis
D) mucous membranes
18. The trachea is lined with
A) ciliated simple squamous epithelium.
B) stratified squamous epithelium.
C) pseudostratified ciliated columnar epithelium.
D) pseudostratified squamous epithelium.
19. The right lung has _____ secondary bronchi and the left lung has _____ secondary bronchi.
A) 2; 2
B) 2; 3
C) 3; 2
D) 3; 3
20. The serous membrane adhering to the surface of the lungs is the _____ and

the serous membrane that lines the thoracic cavity is the _____.

- A) diaphragm; parietal pleura
- B) parietal pleura; diaphragm
- C) parietal pleura; visceral pleura
- D) visceral pleura; parietal pleura

21. The trachea divides into the right and left _____ that enter into the right and left lungs.

- A) alveoli
- B) bronchioles
- C) primary bronchi
- D) secondary bronchi

22. During gas exchange within the lungs, oxygen diffuses from the _____ into the blood of the _____.

- A) alveoli; pulmonary capillaries
- B) alveoli; bronchiole capillaries
- C) lobule; pulmonary capillaries
- D) lobule; bronchiole capillaries

23. List the correct sequence of organs through which air passes into the body.

- A) nose, larynx, pharynx, trachea, bronchi, lungs
- B) nose, pharynx, larynx, bronchi, trachea, lungs
- C) nose, pharynx, larynx, trachea, bronchi, lungs
- D) nose, trachea, pharynx, larynx, bronchi, lungs

24. What substance is necessary to keep alveoli from collapsing because of the surface tension of the water?

- A) surfactant
- B) mucus
- C) blood
- D) air

25. Infant respiratory distress syndrome results from a(n)

- A) lack of surfactant.
- B) autoimmune disorder.
- C) congenital lung defect.
- D) inactive respiratory center.

26. The respiratory membrane consists of the:

- A) alveolar walls.
- B) capillary walls.
- C) alveolar and capillary walls.

27. Identify muscles of inspiration.

- A) Abdominal muscles and external intercostal.
- B) Diaphragm and external intercostal muscles
- C) Diaphragm and internal intercostal muscles
- D) Internal and external intercostal muscles

28. During rest, inspiration is considered a(n) _____ phase of ventilation and expiration is considered a(n) _____ phased of ventilation.

- A) active; active
 - B) active; passive
 - C) passive; passive
 - D) passive; active
29. During inspiration, the diaphragm contracts, causing the volume of the thoracic cavity to _____ and the intrapulmonary pressure to _____.
- A) decrease; decrease
 - B) decrease; increase
 - C) increase; decrease
 - D) increase; increase
30. During inspiration, air flows into the lungs because atmospheric pressure is:
- A) greater than intrapulmonary pressure
 - B) less than intrapulmonary pressure
 - C) equal to intrapulmonary pressure
 - D) greater than intrapleural pressure
31. Airflow into the lungs will stop when the pressure in the air (atmospheric pressure) is:
- A) greater than intrapulmonary pressure
 - B) less than intrapulmonary pressure
 - C) equal to intrapulmonary pressure
 - D) greater than intrapleural pressure
32. During expiration, the diaphragm relaxes, causing the volume of the thoracic cavity to _____ and the intrapulmonary pressure to _____.
- A) decrease; decrease
 - B) decrease; increase
 - C) increase; decrease
 - D) increase; increase
33. During expiration, air flows out of the lungs because atmospheric pressure is:
- A) greater than intrapulmonary pressure
 - B) less than intrapulmonary pressure
 - C) equal to intrapulmonary pressure
 - D) greater than intrapleural pressure
34. In order to sing or blow out birthday candles, contraction of the _____ muscles are needed.
- A) external intercostal
 - B) internal intercostal
 - C) pectoralis major
 - D) sternocleidomastoid
35. The vital capacity equals the
- A) total lung volume.
 - B) inspiratory reserve volume + expiratory reserve volume.
 - C) inspiratory reserve volume + expiratory reserve volume + tidal volume.
36. Normal, quiet respiration moves about 500 mLs of air. What is this volume

called?

- A) vital capacity
 - B) expiratory reserve volume
 - C) residual volume
 - D) tidal volume
37. A big, deep inspiration before going under water is the
- A) vital capacity.
 - B) residual volume.
 - C) inspiratory reserve volume.
 - D) tidal volume.
38. The primary respiratory center is located in the
- A) brachiocephalic trunk.
 - B) hypothalamus.
 - C) medulla oblongata.
 - D) cerebrum.
39. To breathe rhythmically at a normal rate and volume requires input from the
- A) cerebrum.
 - B) cerebellum.
 - C) thalamus.
 - D) pons.
40. The normal quiet pattern of breathing of a smooth, sustained inspiration followed by a smooth, sustained expiration is called:
- A) apnea
 - B) eupnea
 - C) hyperpnea
 - D) hypoventilation
41. The respiratory center is directly sensitive to:
- A) elevated carbon dioxide
 - B) elevated carbon dioxide and hydrogen ions
 - C) elevated hydrogen ion
 - D) low oxygen levels
42. The exchange of respiratory gases in the lungs is called
- A) pulmonary ventilation.
 - B) external respiration.
 - C) internal respiration.
 - D) expiration.
43. The driving factor(s) for gas exchange is (are)
- A) different partial pressures of the blood gases.
 - B) the number of white blood cells in the blood.
 - C) different concentrations of the blood gases.
 - D) Both A and C
44. External respiration occurs between the alveoli and the pulmonary capillaries because the concentration of oxygen levels is higher in the _____ and the concentration of carbon dioxide is higher in the _____.

- A) alveoli; pulmonary capillaries
 - B) pulmonary capillaries; alveoli
 - C) systemic capillaries; tissue fluid
 - D) tissue fluid; systemic capillaries
45. The exchange of gases between the blood and tissue fluids is called
- A) pulmonary ventilation.
 - B) external respiration.
 - C) internal respiration.
 - D) expiration.
46. Internal respiration occurs between the systemic capillaries and the tissue fluid because the concentration of oxygen levels is higher in the _____ and the concentration of carbon dioxide is higher in the _____.
- A) alveoli; pulmonary capillaries
 - B) pulmonary capillaries; alveoli
 - C) systemic capillaries; tissue fluid
 - D) tissue fluid; systemic capillaries
47. Most of the carbon dioxide in the blood is transported as
- A) carbon dioxide dissolved in the plasma.
 - B) bicarbonate ions.
 - C) carbaminohemoglobin.
 - D) carbonic acid.
48. Carbonic acid can be formed from
- A) water and carbon dioxide.
 - B) hydrogen ions and bicarbonate ions.
 - C) carbon dioxide and bicarbonate ions.
 - D) A and B, but not C.
49. Most of the oxygen in the blood is transported
- A) dissolved oxygen in the plasma.
 - B) attached to the heme group of the hemoglobin in the red blood cells.
 - C) attached to the globin part of the hemoglobin in the red blood cells.
 - D) as bicarbonate ions in the red blood cells.
50. What ion must enter a red blood cell so that bicarbonate ions can move into the plasma for transport?
- A) sodium
 - B) calcium
 - C) hydrogen
 - D) chloride
51. Which of the following is NOT a way that carbon dioxide is transported in the blood?
- A) a gas dissolved in the plasma
 - B) as bicarbonate ion in the plasma
 - C) attached to the heme group of hemoglobin
 - D) as carbaminohemoglobin
52. Which part of the pharynx contains the openings to the auditory tubes?

- A) laryngopharynx
 - B) nasopharynx
 - C) oropharynx
53. Infection can move from the upper respiratory tract to the ear and cause
- A) otitis media.
 - B) sinusitis.
 - C) tonsillitis.
 - D) rhinitis.
54. Hoarseness leading to not being able to talk audibly is an infection of which structure?
- A) tonsils
 - B) sinuses
 - C) larynx
 - D) eustachian tube
55. Pulmonary tuberculosis is caused by a(n) _____.
- A) bacterium
 - B) virus
 - C) interferon
 - D) protozoan.
56. Fibrous connective tissue builds up in the lungs causing them not to inflate properly, and actually deflating them is called _____?
- A) chronic bronchitis
 - B) emphysema
 - C) pulmonary fibrosis
 - D) asthma
57. Which of the following is NOT true of emphysema?
- A) It is a restrictive pulmonary disorder.
 - B) Alveolar walls are damaged.
 - C) Lungs lose elasticity and the ability to recoil.
 - D) Exhaling is difficult.
58. Describe the correct sequence of changes leading to lung cancer.
- A) cilia lost, thickening and callusing of cells, disordered cells, atypical nuclei, metastasis
 - B) Thickening and callusing of cells, cilia lost, atypical nuclei, disordered cells, metastasis
 - C) atypical nuclei, disordered cells, metastasis, thickening and callusing of cells, cilia lost
 - D) disordered cells, metastasis, cilia lost, thickening and callusing of cells, atypical nuclei
59. Which of the following is NOT an effect of aging on the respiratory system?
- A) Less efficient gas exchange
 - B) Greater incidence of respiratory diseases.
 - C) Increased inspiratory reserve volume.
 - D) Increased residual air.

60. Hyperventilation causes
- A) alkalosis.
 - B) acidosis.
 - C) no change.
61. A decrease in pH or _____ can occur when one _____.
- A) acidosis; hyperventilates
 - B) acidosis; hypoventilates
 - C) alkalosis; hyperventilates
 - D) alkalosis; hypoventilates

Список рекомендованої літератури:

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Інформаційні ресурси:

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2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
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5. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
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ТЕМА 8

«Структура нервової системи та її функціонування. Рефлекси.»

Мета: закріплення базової лексики з анатомії та фізіології нервової системи, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття:

План

- Вивчити нову лексику і граматику до практичних занять 11 та 12;
- Засвоїти терміни та терміноелементи, що стосуються структури і функціонування нервової системи;
- Вміти описувати структуру і функції нервової системи;
- Знати основні види рефлексів та розповідати про особливості їх виникнення.

4. Питання для самоконтролю:

1.1. Answer the following questions:

What parts is the nervous system composed of?

What does the brain consist of?

What organs does CNS consist of?

What are the functions of the nervous system?

How are nervous cells called?

What are the primary functions of the nervous system, and how can it be categorized based on these functions?

Define sensation in the context of the nervous system and provide examples of sensory stimuli.

Differentiate between somatic sensory and visceral sensory information.

What is the role of the afferent branch of the peripheral nervous system (PNS)?

Explain the concept of responses in the nervous system and how they are generated.

Describe the efferent branch of the PNS and its role in carrying signals.

How are somatic motor and visceral motor responses distinguished?

What is the difference between voluntary and involuntary responses, and which nervous system governs each?

Elaborate on the responsibilities of the somatic nervous system (SNS) within the body.

How does the autonomic nervous system (ANS) contribute to maintaining homeostasis?

1.2. Describe the terms:

neuron, nervous system, brain, spinal cord, CNS, PNS, SNS, ANS, reflex, conditioned reflexes, unconditioned reflexes.

4. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

2.1. Read the text and put 5-7 questions to it.

Reflexes

In biology, a reflex is an automatic and often inborn response to a stimulus that typically involves a nerve impulse passing inward from a receptor to the spinal cord and then passing outward from the spinal cord to an effector (such as a muscle or gland) without reaching the level of consciousness and often without passing to the brain.

All reflexes are divided into unconditioned and conditioned ones.

An *unconditioned* reflex is a normal, instinctive, unlearned reaction to a stimulus that occurs naturally and is not dependent on previous experience. Unconditioned reflexes are also called inborn reflexes.

There are a lot of unconditioned reflexes, such as patellar, plantar, pupillary, lacrimal reflexes and many others, but the simplest ones include *swallowing, salivation, sweating, sneezing, yawning, blinking, scratching, sucking (in infants), and others*.

Probably the best-known reflex is the pupillary light reflex. If a light is flashed near one eye, the pupils of both eyes contract. Greater intensity light causes the pupil to become smaller, whereas lower intensity light causes the pupil to become larger.

A *conditioned* reflex is an action or feeling that you learn to do in response to a specific situation or stimulus. The response is occasioned by a secondary stimulus repeatedly associated with the primary stimulus.

Speaking, reading, writing, walking, running, typewriting, playing different musical instruments, cycling, driving are examples of conditioned reflexes.

Conditioned reflexes are also called acquired reflexes or trained reflexes and behavior reflexes.

Unlike conditioned reflexes, the unconditioned reflexes are mostly stable. The conditioned reflexes are not only unstable but can be modified.

2. Say for which reflexes the following statements are true:

Model: they are also called acquired reflexes – conditioned reflexes

- 1) they are learned through training;
- 2) they are also called inborn reflexes;
- 3) they are not dependent on previous experience;
- 4) they are a function of the cerebral cortex;
- 5) the foundation for the rest of the nervous activity of the body;
- 6) they are also called behavior reflexes;
- 7) they can be modified;
- 8) they are unstable;

- 9) they are a function of the subcortical nuclei, brain stem, and spinal cord;
- 10) they are unlearned reactions

3. *Match the names of unconditioned responses to their definitions:*

- | | |
|---------------|---|
| 1. | a) the common motor response to itching; |
| swallowing | b) a reflex act of a sudden violent spasmodic expiration of breath |
| 2. salivation | through the nose and mouth following irritation of the nasal mucous |
| 3. blinking | membrane; |
| 4. | c) the process that usually involves the movement of food from the |
| scratching | mouth to the stomach via the esophagus; |
| 5. sucking | d) secretion or production of saliva; |
| 6. sneezing | e) an involuntary act, or reflex action, usually associated with |
| 7. yawning | drowsiness or boredom when the mouth is opened wide and a slow, |
| | deep breath is taken through it; |
| | f) movements of an infant's lips elicited by touching them or the |
| | adjacent skin; |
| | g) a reflex that closes and opens the eyes rapidly. |

Тестові завдання для самоконтролю: [*Nervous system*](#)

1. What are the three specific functions of the nervous system?
 - A) sensory input, integration, peripheral interpretation
 - B) sensory input, integration, peripheral involuntary input
 - C) integration, sensory input, motor output
 - D) motor output, peripheral interpretation, voluntary input
2. The central nervous system (CNS) includes the:
 - A) brain and cranial nerves.
 - B) brain and spinal cord.
 - C) cranial and spinal nerves.
 - D) spinal cord and spinal nerves.
3. The peripheral nervous system (PNS) includes the
 - A) brain and cranial nerves.
 - B) brain and spinal cord.
 - C) cranial and spinal nerves.
 - D) spinal cord and spinal nerves.
4. The afferent division of the nervous system functions in:
 - A) integrative activities
 - B) motor output
 - C) sensory input
 - D) integrative functions, motor control and sensory input
5. Identify the three basic parts of a neuron.
 - A) Axon, cell body and dendrite
 - B) Axon, dendrite and myelin
 - C) Cell body, dendrite and myelin
 - D) Cell body, dendrite and neuroglia

6. A neuron that transmits nerve impulses from the central nervous system to muscles, glands and other organs is a(n) _____ neuron.
- A) interneuron
 - B) motor neuron
 - C) sensory neuron
 - D) unipolar neuron
7. Neurons that transmit nerve impulses from receptors to the central nervous system are _____ neurons.
- A) interneuron
 - B) motor neuron
 - C) sensory neuron
 - D) unipolar neuron
8. The nucleus of a neuron is associated with the _____ of the neuron.
- A) axon
 - B) cell body
 - C) dendrite
 - D) myelin sheath
9. The gaps in between the myelin sheath are called:
- A) axon
 - B) cell body
 - C) dendrite
 - D) node of Ranvier
10. A bundle of axons in the central nervous system is a:
- A) cell body
 - B) nerve
 - C) neuroglia
 - D) tract
11. A bundle of axons in the peripheral nervous system is a:
- A) cell body
 - B) nerve
 - C) neuroglia
 - D) tract
12. Chemical messengers that allow neurons to communicate with other cells are called:
- A) axons
 - B) myelin
 - C) neurotransmitters
 - D) neuroglia
13. What are the cells that support and nourish neurons?
- A) dendrites
 - B) axons
 - C) neurotransmitters
 - D) neuroglia
14. The myelin sheath around axons in the CNS is formed by _____.

- A) Schwann cells
 - B) neurons
 - C) oligodendrocytes
 - D) none of the above
15. Identify a classification of neurons by structure.
- A) Interneuron
 - B) Motor neuron
 - C) Unipolar neuron
 - D) Sensory neuron
16. Identify a neuron(s) that have a multipolar structure.
- A) sensory
 - B) motor
 - C) interneuron
 - D) Both B and C are correct
17. Which of the following is NOT true of the resting potential of a neuron?
- A) The membrane is polarized.
 - B) The outside is positively charged.
 - C) The inside has an abundance of sodium ions.
 - D) The inside is negatively charged.
18. What mechanism helps keep the neuron membrane at its resting potential?
- A) passive diffusion of ions
 - B) active transport sodium-potassium pump
 - C) filtration of ions
 - D) pinocytosis of ions from one side to another
19. A stimulus will begin an action potential by
- A) opening sodium channels into the axon.
 - B) opening potassium channels into the axon.
 - C) closing sodium channels into the axon.
 - D) closing potassium channels into the axon.
20. The process of moving sodium ions into the axon to make the inside positive is called
- A) polarization.
 - B) depolarization.
 - C) repolarization.
 - D) hyperpolarization.
21. The return of the neuron cell membrane to resting potential is called
- A) synaptic transmission.
 - B) polarization.
 - C) depolarization.
 - D) repolarization.
22. Nerve signal transmission over myelinated axons is called
- A) saltatory conduction.
 - B) point to point conduction.
 - C) synaptic transmission.

- D) dendritic conduction.
23. Which of the following accounts for the movement of neurotransmitters across a synaptic cleft?
- A) active transport
 - B) endocytosis
 - C) osmosis
 - D) diffusion
24. What ion is necessary to cause the release of neurotransmitters from the synaptic vesicles?
- A) sodium
 - B) calcium
 - C) potassium
 - D) magnesium
25. The protective membranes that enclose the brain and spinal cord are called:
- A) cerebrospinal fluid
 - B) choroid plexus
 - C) meninges
 - D) tracts
26. Identify the layers of the meninges in order from deepest to most superficial.
- A) arachnoid mater, dura mater and pia mater
 - B) dura mater, arachnoid mater and pia mater
 - C) pia mater, arachnoid mater and pia mater
 - D) pia mater, dura mater and arachnoid mater
27. Cerebrospinal fluid is found in which of the following areas?
- A) brain ventricles
 - B) subarachnoid spaces of the brain and spinal cord
 - C) central canal of the cord
 - D) It is found in all of these areas.
28. Cerebrospinal fluid is located between the _____ and the _____.
- A) skull: dura mater
 - B) dura mater: arachnoid mater
 - C) arachnoid mater; pia mater
 - D) pia mater: brain
29. The spinal cord begins outside the _____ and ends at the _____.
- A) ventricles; sacrum
 - B) foramen magnum; 1st lumbar vertebra
 - C) foramen magnum; 4th lumbar vertebra
 - D) ventricles; 12th thoracic vertebra
30. Describe the structure of the spinal cord.
- A) gray matter outside white matter with a ventral motor root
 - B) gray matter outside white matter with a dorsal motor root
 - C) gray matter inside white matter with a dorsal sensory root
 - D) gray matter inside white matter with a ventral sensory root
31. The ventral root of the spinal cord contains _____ fibers and the dorsal root of

the spinal cord contains _____ fibers.

- A) sensory: motor
 - B) motor: sensory
 - C) sensory and motor: sensory
 - D) sensory: sensory and motor
32. The white matter of the spinal cord
- A) contains ascending and descending informational tracts.
 - B) contains cell bodies of motor neurons.
 - C) contains reflex centers.
 - D) Both A and C are correct.
33. The electrical activity of the brain is recorded in the form of a(n):
- A) electrocardiogram
 - B) electroencephalogram
 - C) myeleogram
 - D) neurogram
34. Identify the four major regions of the adult brain.
- A) brain stem, cerebrum, cerebellum and spinal cord
 - B) brain stem, cerebellum meninges and spinal cord
 - C) brain stem, diencephalon, cerebrum and cerebellum
 - D) diencephalon, cerebrum, cerebellum and spinal cord
35. The cerebral hemispheres are separated by the
- A) corpus callosum.
 - B) longitudinal fissure.
 - C) brain stem.
 - D) ventricles.
36. Identify the bridge of white matter that connects the right and left cerebral hemispheres.
- A) corpus callosum.
 - B) longitudinal fissure.
 - C) brain stem.
 - D) ventricles.
37. Which of the following is NOT a lobe of the cerebrum?
- A) frontal
 - B) parietal
 - C) occipital
 - D) cerebellar
38. A ridge or bump of the cerebral cortex is called a
- A) fissure.
 - B) gyrus.
 - C) sulcus.
 - D) insula.
39. The primary motor area of the cerebrum is located in the _____ lobe.
- A) frontal
 - B) occipital

- C) parietal
 - D) temporal
40. The primary motor area is where commands to _____ begin.
- A) cardiac muscle
 - B) skeletal muscles
 - C) smooth muscle
 - D) skin
41. The primary somatosensory area is located in the front of the _____ lobe.
- A) frontal
 - B) temporal
 - C) parietal
 - D) occipital
42. The primary visual area of the cerebrum is located in the _____ lobe.
- A) frontal
 - B) occipital
 - C) parietal
 - D) temporal
43. The primary taste area is in the _____.
- A) insula.
 - B) occipital lobe.
 - C) frontal lobe.
 - D) temporal lobe.
44. Places on the cerebral cortex where integration occurs are
- A) somatosensory areas.
 - B) association areas.
 - C) motor areas.
 - D) none of the above.
45. What cerebral area is important for muscular control of speech?
- A) Broca's area
 - B) Wernicke's area
 - C) prefrontal area
 - D) insula
46. Masses of gray matter deep in the cerebrum that help integrate motor commands are the
- A) limbic areas.
 - B) ventricles.
 - C) basal nuclei.
 - D) All of the above.
47. Parkinson disease is caused by the destruction of the basal nuclei cells which produce which chemical?
- A) acetylcholine
 - B) norepinephrine
 - C) epinephrine
 - D) dopamine

48. The limbic system is involved in
- A) emotions.
 - B) memory.
 - C) learning.
 - D) all of the above
49. The hypothalamus is part of the:
- A) thalamus
 - B) brain stem
 - C) diencephalon
 - D) medulla oblongata
50. Identify the function of the thalamus.
- A) sensory relay center.
 - B) regulate body temperature
 - C) links the nervous and endocrine systems.
 - D) all of the above
51. Which of the following is NOT a function of the hypothalamus?
- A) regulates thirst
 - B) regulates the body's daily rhythms
 - C) regulates water balance
 - D) regulates hunger
52. Which of the following brain regions is responsible for muscle coordination and tone?
- A) cerebrum
 - B) cerebellum
 - C) thalamus
 - D) medulla oblongata
53. Which of the following is NOT a component of the brainstem?
- A) diencephalon
 - B) pons
 - C) medulla oblongata
 - D) midbrain
54. Vital centers for regulating heartbeat, breathing, and blood pressure are located in the
- A) cerebrum
 - B) cerebellum
 - C) thalamus
 - D) medulla oblongata
55. Which of the following is NOT a function of the reticular formation?
- A) keeps one mentally alert
 - B) helps get one awake from sleep
 - C) processes sensory information
 - D) relates emotions to sensory input
56. The somatic nervous system does NOT serve

- A) internal organs.
 - B) skin.
 - C) skeletal muscles.
 - D) joints and tendons.
57. Which of the following cranial nerves is NOT a sensory nerve?
- A) vestibulocochlear
 - B) glossopharyngeal
 - C) optic
 - D) olfactory
58. Identify the cranial nerve that serves the muscles of the face for facial expression.
- A) Trigeminal
 - B) Abducens
 - C) Facial
 - D) Oculomotor
59. Identify the cranial nerve that has branches to serve internal organs.
- A) trochlear
 - B) trigeminal
 - C) vagus
 - D) hypoglossal
60. Which of the following cranial nerves does NOT help control eye movement?
- A) optic
 - B) oculomotor
 - C) abducens
 - D) trochlear
61. Which cranial nerve controls muscles for chewing and carries sensory input from the face?
- A) facial
 - B) trigeminal
 - C) trochlear
 - D) hypoglossal
62. Identify the cranial nerve that carries sensory information from the inner ear for balance and hearing.
- A) trochlear
 - B) trigeminal
 - C) vestibulocochlear
 - D) vagus
63. There are ____ cranial nerves and ____ spinal nerves.
- A) 12 pairs; 12 pairs
 - B) 12 pairs; 31 pairs
 - C) 31 pairs; 12 pairs
 - D) 31 pairs; 15 pairs
64. Which spinal nerve region and the number of nerve pairs is NOT correct?

- A) lumbar - 5 pairs
 - B) cervical - 7 pairs
 - C) thoracic - 12 pairs
 - D) sacral - 5 pairs
65. Which spinal nerve branch is NOT correctly matched with the area it serves?
- A) phrenic nerve - abdominal muscles
 - B) radial nerve - posterior arm muscles and skin
 - C) femoral nerve - anterior thigh and leg muscles and skin
 - D) sciatic nerve - posterior thigh and leg muscles and skin
66. An autonomic involuntary response to a change is a(an)
- A) homeostatic imbalance.
 - B) effector.
 - C) stimulus.
 - D) reflex.
67. Which sequence of a reflex arc is correct?
- A) receptor - sensory neuron - interneuron in the CNS - motor neuron - effector
 - B) effector - sensory neuron - motor neuron - interneuron in the CNS - receptor
 - C) receptor - effector - interneuron in the CNS - sensory neuron - motor neuron
 - D) sensory neuron - interneuron in the CNS - receptor - motor neuron - effector
68. Which of the following does NOT describe the autonomic nervous system?
- A) usually functions in an involuntary manner
 - B) innervates all internal organs
 - C) utilizes one motor neuron and one ganglion
 - D) has two antagonistic divisions
69. Which of the following is NOT related to the sympathetic division of the autonomic nervous system?
- A) fight of flight response
 - B) thoracic and lumbar fibers
 - C) longer postganglionic fiber than preganglionic fiber
 - D) regulates digestive activities
70. Which of the following is a response of the parasympathetic nervous system?
- A) increased heart rate
 - B) increased sweating
 - C) increased salivary gland secretion
 - D) dilates bronchi
71. Which of the following is NOT true of the parasympathetic nervous system?
- A) long preganglionic neuron and short postganglionic neuron
 - B) comes from cranial regions and sacral area of the cord
 - C) neurotransmitters acetylcholine and norepinephrine
 - D) rest and digest division

72. Which of the following is NOT an aging effect on the nervous system?

- A) neurotransmitter production decreases
- B) neurological disorders increase
- C) brains lose neurons
- D) mental activities increase.

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7. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 9

«Органи ШКТ. Травлення.»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Анатомія та фізіологія травної системи”; активізація набутих знань у самостійному мовленні.

Завдання:

Формування умінь і навичок інтерпретації змісту тексту англійською мовою.
Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: Digestive tract, Mouth, Esophagus, Stomach, Small intestine, Large intestine, Liver, Gallbladder, Pancreas, Digestion, Absorption, Enzyme, Peristalsis.

План

- Вивчити нову лексику і граматику за темою практичних занять 13 та 14;
- Скласти план тексту *Anatomy of the Digestive System* (с. 109, впр. 5);
- Знати назви органів травної системи;
- Вміти описувати анатомічне положення і структуру органів ШКТ;
- Підготувати доповідь про процес травлення.

3. Питання для самоконтролю:

1.1. Answer the following questions:

1. What is the alimentary tract?
2. What does the alimentary tract consist of?
3. What is the 1 st division of the alimentary tract formed by?
4. What is the stomach?
5. What is the small intestine?
6. What is the function of the large intestine?
7. What largest glands in the human body do you know?
8. What is the function of the gallbladder?
9. When does the digestive process begin?
10. How many processes occur during digestion?
11. What nutrients come from food during absorption?
12. What is the role of saliva in mastication?
13. How does the process of swallowing occur?

1.2. Describe the terms:

Digestive tract, Mouth, Esophagus, Stomach, Small intestine, Large intestine, Liver, Gallbladder, Pancreas, Digestion, Absorption, Enzyme, Peristalsis.

4. Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. Study suffixes pertaining to organs, processes, and disorders (ex. 8, p. 7) and write down your own examples with them.

Model: gastr/o – stomach → gastritis (inflammation of the stomach)

Examples of suffixes:

- itis (inflammation): hepatitis, gastritis, colitis
- logy (study of): gastroenterology, hepatology
- megaly (enlargement): splenomegaly, hepatomegaly
- ectomy (surgical removal): appendectomy, gastrectomy
- osis (condition, disease): cirrhosis, fibrosis
- pathy (disease of): enteropathy, gastropathy
- algia (pain): neuralgia, gastralgia

Task: Write your own examples using these suffixes related to the organs of the digestive system.

2. Read the following text, entitle it and make up the questions.

The digestive system is a complex and well-coordinated group of organs working together to convert food into energy and essential nutrients that sustain the entire body. It ensures that every cell receives the necessary building blocks for growth, repair, and daily functioning. The system consists of the alimentary canal (also known as the gastrointestinal tract) and several accessory organs that assist in digestion.

The alimentary canal is a continuous muscular tube that extends from the mouth to the anus, measuring about 9 meters in length in an adult. It includes the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, and anus. Each of these organs performs a specific function in the process of digestion and absorption.

Digestion begins in the mouth, where food is broken down mechanically by chewing and chemically by enzymes present in saliva, secreted by the salivary glands. The enzyme amylase begins the breakdown of starches into simpler sugars. The chewed food, now called a bolus, is swallowed and passes through the pharynx and esophagus by rhythmic muscular contractions known as peristalsis.

In the stomach, gastric glands secrete hydrochloric acid and digestive enzymes, such as pepsin, which begin the digestion of proteins. The stomach muscles churn the food, turning it into a semi-liquid mixture called chyme. This chyme is slowly released into the small intestine, where most chemical digestion and nutrient absorption occur.

The small intestine is divided into three parts: the duodenum, jejunum, and ileum. In the duodenum, digestive juices from the pancreas and bile from the liver and gallbladder are mixed with the chyme. These secretions help digest fats, proteins, and carbohydrates. The intestinal walls are lined with tiny finger-like projections called villi and microvilli, which greatly increase the surface area for nutrient absorption into the bloodstream.

The large intestine, or colon, absorbs water, salts, and some vitamins from the remaining indigestible material. It compacts the waste into feces, which are stored in the rectum until they are excreted through the anus.

The accessory organs—salivary glands, liver, gallbladder, and pancreas—play crucial supporting roles. The liver produces bile, which emulsifies fats; the

gallbladder stores and releases bile into the small intestine; and the pancreas secretes digestive enzymes and bicarbonate to neutralize stomach acid.

Together, these organs form a remarkable system that not only processes and absorbs nutrients but also protects the body from harmful substances and maintains internal balance.

Write an appropriate title for the text.

Make 5–7 questions to the text (e.g., What organs form the digestive system? / Where does digestion begin?).

3. *Insert the missing words given below:*

Words: stomach, digestion, intestine, enzymes, liver, nutrients, mouth, absorption, pancreas

The _____ is the first organ of the digestive system where food enters the body.

The _____ secretes digestive juices containing _____ to break down food.

The _____ produces bile, which helps in the _____ of fats.

The small _____ is responsible for the _____ of most _____.

The _____ connects the stomach with the large intestine and completes the process of _____.

4. *Translate the following sentences into English:*

Травна система забезпечує організм поживними речовинами.

Травлення починається у ротовій порожнині.

Печінка виробляє жовч, яка допомагає перетравлювати жири.

Підшлункова залоза виділяє ферменти для розщеплення білків, жирів і вуглеводів.

Тонкий кишечник відповідає за основне всмоктування поживних речовин.

У товстому кишечнику відбувається всмоктування води.

Органи травної системи працюють злагоджено, забезпечуючи нормальне функціонування організму.

Тестові завдання для самоконтролю:

1. Which of the following structures is not part of the alimentary canal?

A) Esophagus B) Liver C) Stomach D) Large intestine

2. The process of breaking down food into smaller molecules is called:

A) Absorption B) Digestion C) Excretion D) Metabolism

3. Digestion begins in the:

A) Mouth B) Stomach C) Esophagus D) Small intestine

4. The enzyme amylase, found in saliva, breaks down:

A) Proteins B) Fats C) Carbohydrates D) Vitamins

5. The rhythmic muscular contractions that move food along the digestive tract are called:

A) Peristalsis B) Segmentation C) Filtration D) Defecation

6. The main function of the stomach is:

A) Absorption of nutrients B) Chemical and mechanical breakdown of food
C) Water absorption D) Vitamin synthesis

7. The semi-liquid mixture of food and gastric juice in the stomach is called:
A) Bolus B) Chyme C) Bile D) Plasma
8. The first section of the small intestine is the:
A) Ileum B) Duodenum C) Jejunum D) Cecum
9. The tiny projections in the small intestine that increase surface area for absorption are called:
A) Papillae B) Villi C) Cilia D) Alveoli
10. The liver produces:
A) Enzymes B) Bile C) Mucus D) Gastric acid
11. The gallbladder functions to:
A) Produce bile B) Store bile C) Neutralize acids D) Absorb nutrients
12. Which of the following is not an accessory organ of digestion?
A) Pancreas B) Gallbladder C) Small intestine D) Liver
13. Most nutrient absorption occurs in the:
A) Stomach B) Small intestine C) Large intestine D) Esophagus
14. The large intestine is mainly responsible for:
A) Digestion of proteins B) Absorption of water and salts C) Production of bile D) Secretion of enzymes
15. The end product of digestion that leaves the body through the anus is called:
A) Chyme B) Feces C) Bile D) Plasma
16. The hormone gastrin is responsible for:
A) Stimulating bile production B) Stimulating gastric acid secretion C) Neutralizing stomach acid D) Regulating pancreatic enzymes
17. Which enzyme breaks down proteins in the stomach?
A) Lipase B) Pepsin C) Amylase D) Maltase
18. Bile helps in the digestion of:
A) Proteins B) Carbohydrates C) Fats D) Minerals
19. The pancreas secretes enzymes into the:
A) Stomach B) Large intestine C) Duodenum D) Gallbladder
20. The process of absorbing nutrients into the bloodstream occurs mainly in the:
A) Stomach B) Small intestine C) Esophagus D) Large intestine
21. The contraction and relaxation of intestinal muscles to move food is called:
A) Segmentation B) Peristalsis C) Mastication D) Defecation
22. Which hormone stimulates the release of bile from the gallbladder?
A) Gastrin B) Insulin C) Secretin D) Cholecystokinin
23. Which enzyme breaks down fats into fatty acids and glycerol?
A) Lipase B) Amylase C) Trypsin D) Pepsin
24. The acidic environment of the stomach is maintained by:
A) Bile B) Hydrochloric acid C) Mucus D) Pepsin
25. Most water absorption occurs in the:
A) Small intestine B) Large intestine C) Stomach D) Pancreas
26. Which structure prevents food from entering the trachea during swallowing?
A) Larynx B) Epiglottis C) Esophagus D) Uvula
27. The main role of intestinal villi is:

- A) Secreting enzymes B) Increasing absorption surface C) Producing hormones D) Digesting starch
28. What stimulates the pancreas to release bicarbonate and enzymes?
A) Gastrin B) Secretin C) Pepsin D) Insulin
29. The end product of carbohydrate digestion is:
A) Amino acids B) Fatty acids C) Glucose D) Peptides
30. Which organ produces insulin?
A) Liver B) Pancreas C) Gallbladder D) Small intestine

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
2. English for Dentistry Students. Step 1. Anatomy: Student's Book: / N. V. Kuchumova, L. V. Manyuk, O. H. Vasylenko; edited by P. A. Sodomora. – Danylo Halytsky Lviv National Medical University, 2019. – 102 p.
3. Career Paths: Dentistry - Student's Book by Virginia Evans, Jenny Dooley, James Caldwell DDS. Express Publishing, 2016. – 115 p.
4. Medical Terminology. An Illustrated Guide / Barbara Janson Cohen, Shirley A. Jones. Ninth Edition. Jones and Bartlett Learning, 2021, 670 p.
5. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
6. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Електронні інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

ТЕМА 10

«Будова і функціонування нирок. Урологічні хвороби.»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Фізіологія сечовидільної системи”; активізація набутих знань у самостійному мовленні.

Завдання: Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати уміння та навички висловлювати основну думку з теми.

Основні поняття: Urinary tract, Kidney, Ureter, Urinary bladder, Urethra, Nephron, Filtration, Reabsorption, Secretion, Urine, Renal artery, Renal vein.

План:

Вивчити нову лексику і граматику за темою практичного заняття 15;

Скласти план тексту Physiology of the Urinary System;

Знати назви органів сечовидільної системи;

Вміти надавати визначення кожному органу та процесу.

Питання для самоконтролю:

1.1. Answer the following questions:

1. What does the urinary system consist of?
2. What is urine?
3. Where are the kidneys situated?
4. What is the function of nephrons?
5. What is the function of the ureters?
6. Where is the urine stored before it is discharged from the body?
7. What is urethra?
8. What is the function of the urethra?
9. What conveys urine from the kidneys?
10. What is the function of the urinary bladder?

1.2. Describe the terms:

Urinary tract, Kidney, Ureter, Urinary bladder, Urethra, Nephron, Filtration, Reabsorption, Secretion, Urine, Renal artery, Renal vein.

Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. Study suffixes pertaining to organs, processes, and disorders

Model: nephro – kidney → nephritis (inflammation of the kidney)

Examples of suffixes:

- itis (inflammation): nephritis, cystitis, urethritis
- logy (study of): nephrology, urology
- ectomy (surgical removal): nephrectomy, cystectomy
- osis (condition, disease): nephrosis, urolithiasis

-pathy (disease of): nephropathy, cystopathy

-algia (pain): renalgia, urethralgia

Write your own examples using these suffixes related to the organs of the urinary system.

2. Read the text, give it a title, and make up 5–7 questions:

The urinary system is a complex and highly organized network of organs that works to remove metabolic wastes from the blood, regulate fluid and electrolyte balance, maintain acid-base homeostasis, and control blood pressure. The system consists of the kidneys, ureters, urinary bladder, and urethra, each performing specialized functions to maintain internal balance.

Kidneys are the primary organs of the urinary system. They filter blood through functional units called nephrons, removing waste products, excess salts, and water to form urine. The nephron performs three main processes: filtration, reabsorption, and secretion. Essential nutrients and water are reabsorbed back into the bloodstream, while wastes are excreted.

Ureters are muscular tubes that transport urine from the kidneys to the urinary bladder through peristaltic contractions. The bladder temporarily stores urine until voluntary urination occurs. The urethra is a tubular structure that conveys urine from the bladder to the exterior.

The urinary system is closely regulated by hormonal signals such as antidiuretic hormone (ADH), aldosterone, and atrial natriuretic peptide (ANP), which control water and salt balance. Nervous system input coordinates bladder filling and emptying, ensuring proper micturition. Additionally, the kidneys produce hormones like erythropoietin, which stimulates red blood cell production, and renin, which helps regulate blood pressure.

Together, the organs of the urinary system perform the essential tasks of waste excretion, fluid homeostasis, and endocrine regulation, illustrating the system's crucial role in maintaining overall body homeostasis.

3. Insert the missing words:

Words: kidney, ureter, urine, nephron, bladder, filtration, reabsorption, secretion, urethra

The _____ is the primary organ that filters blood and forms urine.

Each kidney contains thousands of functional units called _____.

The _____ transports urine from the kidney to the _____.

The nephron performs _____, _____, and _____ to maintain homeostasis.

Urine exits the body through the _____.

4. Translate into English:

Сечовидільна система видаляє з організму продукти обміну.

Нирки фільтрують кров і виробляють сечу.

Сеча проходить через сечоводи у сечовий міхур.

Сечовий міхур накопичує сечу до моменту сечовипускання.

Процеси фільтрації, реабсорбції та секреції відбуваються у нефроні.

Гормони, такі як АДГ і альдостерон, регулюють водно-сольовий баланс.

Сечовидільна система підтримує гомеостаз організму.

Тестові завдання для самоконтролю

Which of the following is not part of the urinary system?

A) Kidney B) Ureter C) Bladder D) Pancreas

The functional unit of the kidney is called:

A) Nephron B) Glomerulus C) Ureter D) Tubule

Filtration in the kidney occurs in the:

A) Urethra B) Glomerulus C) Renal pelvis D) Bladder

Which hormone increases water reabsorption in the kidney?

A) Aldosterone B) ADH C) ANP D) Insulin

The tube that carries urine from the kidney to the bladder is called:

A) Urethra B) Ureter C) Nephron D) Collecting duct

Urine is stored in the:

A) Kidney B) Ureter C) Bladder D) Nephron

Secretion in the nephron refers to:

A) Filtration of blood B) Reabsorption of water C) Removal of waste from blood
D) Urine storage

The urethra functions to:

A) Filter blood B) Transport urine to the exterior C) Store urine D) Reabsorb electrolytes

Renin, produced by the kidneys, regulates:

A) Red blood cell production B) Blood pressure C) Hormone secretion in the pancreas D) Water intake

Erythropoietin stimulates:

A) White blood cell production B) Red blood cell production C) Urine formation D) Bile secretion

Which process occurs mainly in the nephron?

A) Digestion B) Filtration, reabsorption, secretion C) Hormone production D) Muscle contraction

The primary excretory product of the urinary system is:

A) Bile B) Feces C) Urine D) Sweat

Aldosterone primarily affects:

A) Sodium reabsorption B) Glucose metabolism C) Protein synthesis D) Acid secretion

ANP (atrial natriuretic peptide) functions to:

A) Increase blood pressure B) Decrease water reabsorption C) Stimulate urine formation D) Both B and C

The micturition reflex is controlled by:

A) Enteric nervous system B) Somatic nervous system C) Autonomic nervous system D) Endocrine system

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
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6. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

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1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

Тема 11

«Репродукція та гормони. Основні етапи ембріонального розвитку людини.»

Мета: закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Фізіологія репродуктивної системи”; активізація набутих знань у самостійному мовленні.

Завдання: Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

- вивчити і систематизувати знання основних ЛО з теми;
- оволодіти навичками пошуку ключових слів;
- формувати вміння та навички висловлювати основну думку з теми.

Основні поняття: Reproductive system, Testes, Epididymis, Vas deferens, Seminal vesicle, Prostate gland, Penis, Ovary, Fallopian tube, Uterus, Cervix, Vagina, Gametes, Sperm, Ovum, Fertilization, Hormones (Testosterone, Estrogen, Progesterone).

План:

Вивчити нову лексику і граматику за темою практичного заняття 16;
Скласти план тексту Physiology of the Reproductive System;
Знати назви органів чоловічої та жіночої репродуктивної системи;
Вміти надавати визначення кожному органу та процесу.

5. Питання для самоконтролю:

1.1. Answer the following questions:

When does male puberty occur?

When does female puberty occur?

How long do sperm cells remain viable in the reproductive system?

What is zygote?

When can fertilization be successful?

1.2. Describe the terms:

Reproductive system, Testes, Epididymis, Vas deferens, Seminal vesicle, Prostate gland, Penis, Ovary, Fallopian tube, Uterus, Cervix, Vagina, Gametes, Sperm, Ovum, Fertilization, Hormones (Testosterone, Estrogen, Progesterone).

Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. Study suffixes pertaining to organs, processes, and disorders

Model: o/o – egg → oogenesis (formation of ovum)

Examples of suffixes:

-itis (inflammation): prostatitis, orchitis, cervicitis

-logy (study of): andrology, gynecology

-ectomy (surgical removal): vasectomy, hysterectomy
-osis (condition, disease): endometriosis, azoospermia
-pathy (disease of): nephropathy, spermatopathy
-algia (pain): dysmenorrhea, orchialgia

Task: Write your own examples using these suffixes related to the organs of the reproductive system.

2. *Read the text, give it a title, and make up 5–7 questions:*

The reproductive system is a highly specialized organ system responsible for producing gametes (sperm in males and ova in females), facilitating fertilization, supporting the development and birth of offspring, and regulating secondary sexual characteristics. Its functions are critical not only for individual reproduction but also for the survival of the species.

Male Reproductive System:

The male reproductive system includes the testes, epididymis, vas deferens, seminal vesicles, prostate gland, bulbourethral glands, and penis. The testes, located in the scrotum, are the primary male gonads and are responsible for spermatogenesis—the production of sperm—and testosterone synthesis. Sperm mature and are stored in the epididymis until ejaculation. During ejaculation, sperm travel through the vas deferens, mix with fluids from the seminal vesicles (providing fructose and other nutrients) and the prostate gland (providing alkaline secretions that help neutralize the acidic environment of the vagina), forming semen, which is expelled through the penis.

Testosterone, produced by the Leydig cells in the testes, is essential for the development of male internal and external genitalia, secondary sexual characteristics (such as facial hair, deeper voice, and muscle mass), spermatogenesis, and libido. Sertoli cells, located in the seminiferous tubules, support and nourish developing sperm, regulate their release, and secrete inhibin, which provides negative feedback to the pituitary gland to modulate FSH secretion.

Female Reproductive System:

The female reproductive system comprises the ovaries, fallopian tubes, uterus, cervix, and vagina. The ovaries are the primary female gonads and produce ova (eggs) as well as estrogen and progesterone. Oogenesis occurs in the ovarian follicles, which mature under the influence of follicle-stimulating hormone (FSH). At ovulation, a mature ovum is released and transported into the fallopian tube, where fertilization by sperm may occur.

The uterus provides the site for implantation of a fertilized egg and supports fetal development through pregnancy. Its inner lining, the endometrium, thickens cyclically under the influence of estrogen and progesterone to prepare for potential implantation. If fertilization does not occur, the endometrium is shed during menstruation. The cervix serves as the gateway between the uterus and vagina, producing mucus that changes consistency during the menstrual cycle to facilitate or hinder sperm passage. The vagina functions as the receptacle for semen during intercourse and forms part of the birth canal during delivery.

Hormonal Regulation:

Both male and female reproductive systems are controlled by the hypothalamic-pituitary-gonadal (HPG) axis. The hypothalamus secretes gonadotropin-releasing hormone (GnRH), which stimulates the anterior pituitary to release luteinizing hormone (LH) and follicle-stimulating hormone (FSH). In males, LH stimulates testosterone production by Leydig cells, while FSH acts on Sertoli cells to support spermatogenesis. In females, FSH promotes follicle maturation and estrogen secretion, whereas LH triggers ovulation and progesterone production by the corpus luteum.

Additional Functions and Interactions:

The reproductive system is closely integrated with other body systems. For example, the endocrine system ensures hormonal balance, the circulatory system delivers hormones and nutrients to gonads, and the nervous system coordinates sexual arousal, mating behavior, and reflexes associated with ejaculation and orgasm. The reproductive system also interacts with the immune system, protecting gametes and the developing embryo from infections and ensuring maternal-fetal tolerance during pregnancy.

In summary, the reproductive system encompasses a complex interplay of anatomical structures, physiological processes, and hormonal regulation, ensuring the production of gametes, successful fertilization, development of offspring, and the maintenance of secondary sexual characteristics, all of which are vital for the continuation of the species.

3. Insert the missing words:

Words: testes, sperm, ovary, ovum, uterus, fertilization, penis, estrogen, progesterone, vas deferens

The male reproductive organ that produces _____ is the _____.

Sperm are stored in the _____ until ejaculation.

The female reproductive organ that produces _____ is the _____.

The site where sperm may meet the ovum for _____ is the fallopian tube.

The _____ provides an environment for embryo implantation and fetal development.

The male organ that delivers semen to the female reproductive tract is the _____.

Female sex hormones _____ and _____ regulate the menstrual cycle and secondary sexual characteristics.

4. Translate into English:

Репродуктивна система забезпечує вироблення гамет і підтримку потомства.

У чоловіків сперматогенез відбувається у сім'яниках.

У жінок овогенез відбувається у яєчниках.

Яйцеклітина транспортується через маткову трубу.

Матка забезпечує імплантацію ембріона і розвиток плоду.

Тестостерон регулює сперматогенез і чоловічі статеві ознаки.

Естроген і прогестерон регулюють менструальний цикл і жіночі статеві ознаки.

Тестові завдання для самоконтролю

Which of the following is not part of the male reproductive system?

A) Testes B) Epididymis C) Ovary D) Prostate gland

Spermatogenesis occurs in the:

A) Epididymis B) Testes C) Vas deferens D) Penis

The female reproductive organ that produces ova is the:

A) Uterus B) Ovary C) Fallopian tube D) Cervix

Fertilization usually occurs in the:

A) Uterus B) Vagina C) Fallopian tube D) Ovary

Which hormone regulates spermatogenesis in males?

A) Estrogen B) Progesterone C) Testosterone D) LH

The structure that transports sperm from the epididymis to the urethra is the:

A) Vas deferens B) Seminal vesicle C) Penis D) Prostate gland

Estrogen and progesterone are produced by the:

A) Testes B) Ovaries C) Uterus D) Pituitary gland

The penis functions to:

A) Produce sperm B) Transport urine and semen C) Store sperm D) Fertilize ova

The uterus provides:

A) Site of sperm storage B) Site for ovum production C) Site for embryo implantation D) Production of hormones

LH and FSH regulate:

A) Blood pressure B) Gametogenesis and hormone production C) Digestion D) Urine formation

Secondary sexual characteristics in males are regulated by:

A) Estrogen B) Progesterone C) Testosterone D) ADH

The cervix connects:

A) Ovary to fallopian tube B) Uterus to vagina C) Vas deferens to urethra D) Penis to bladder

The ejaculatory fluid is called:

A) Urine B) Semen C) Blood D) Lymph

Ovulation occurs once:

A) A sperm fertilizes an egg B) The ovum is released from the ovary C) The uterus contracts D) Menstruation starts

The hypothalamic-pituitary-gonadal axis controls:

A) Digestion B) Reproduction C) Excretion D) Respiration

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V.

- Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
2. English for Dentistry Students. Step 1. Anatomy: Student's Book: / N. V. Kuchumova, L. V. Manyuk, O. H. Vasylenko; edited by P. A. Sodomora. – Danylo Halytsky Lviv National Medical University, 2019. –102 p.
 3. Career Paths: Dentistry - Student's Book by Virginia Evans, Jenny Dooley, James Caldwell DDS. Express Publishing, 2016. – 115 p.
 4. Medical Terminology. An Illustrated Guide / Barbara Janson Cohen, Shirley A.Jones. Ninth Edition. Jones and Bartlett Learning, 2021, 670 p.
 5. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
 6. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Електронні інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри:
<https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

Тема 12

«Типи імунітету. Вакцинація. Вірусологія.»

Мета: Закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Анатомія та фізіологія імунної системи”; активізація набутих знань у самостійному мовленні.

Завдання: Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

вивчити і систематизувати знання основних ЛО з теми;

оволодіти навичками пошуку ключових слів;

формувати уміння та навички висловлювати основну думку з теми.

Основні поняття:

Immune system, Lymph nodes, Lymphatic vessels, Thymus, Spleen, Bone marrow, Tonsils, Leukocytes (White blood cells), Lymphocytes, B-cells, T-cells, Natural killer cells, Macrophages, Antigen, Antibody, Innate immunity, Adaptive immunity, Phagocytosis, Complement system, Cytokines, Immunization, Infection.

План:

Вивчити нову лексику і граматику за темою практичних занять 17 та 18;

Скласти план тексту *Anatomy and Physiology of the Immune System*;

Знати анатомічні структури імунної системи;

Вміти пояснити функції основних клітин та органів.

Питання для самоконтролю:

1.1. Answer the following questions:

1 What is the main cause of infectious diseases?

2. What are the two main types of immunity?

3. What specific substance do the cells of the body produce to meet the infection?

4. What elements of the tissues also take an active part in the protection of the organism against the infection?

5. Why are vaccines used?

1.2. Describe the terms:

Immune system, Lymph nodes, Lymphatic vessels, Thymus, Spleen, Bone marrow, Tonsils, Leukocytes (White blood cells), Lymphocytes, B-cells, T-cells, Natural killer cells, Macrophages, Antigen, Antibody, Innate immunity, Adaptive immunity, Phagocytosis, Complement system, Cytokines, Immunization, Infection.

Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. Study suffixes pertaining to organs, cells, and disorders:

Model: lymph/o – lymph → lymphocyte (a type of white blood cell)

Examples of suffixes:

-itis (inflammation): tonsillitis, lymphadenitis

-logy (study of): immunology, hematology

- ectomy (surgical removal): splenectomy, thymectomy
- osis (condition, disease): immunodeficiency, leukocytosis
- pathy (disease of): lymphopathy, myelopathy
- cyte (cell): lymphocyte, leukocyte
- phage (eater): macrophage, phagocyte

Task: Write your own examples using these suffixes related to the immune system.

2. Read the text, give it a title, and make 5–7 questions:

The immune system is a highly organized and complex network of organs, tissues, cells, and molecular components that protects the body from a wide range of pathogens, including bacteria, viruses, fungi, and parasites, as well as from abnormal or malignant cells. Its primary role is to maintain homeostasis, prevent infections, and eliminate harmful or foreign substances. The immune system comprises primary lymphoid organs, secondary lymphoid organs, and specialized immune cells, which function in a coordinated manner to recognize and neutralize threats.

Primary lymphoid organs include the bone marrow and the thymus. In the bone marrow, all blood cells—including red blood cells, white blood cells, and platelets—are produced through hematopoiesis. It is also the site where B-lymphocytes mature. The thymus provides an environment for the maturation and selection of T-lymphocytes, ensuring that T-cells are capable of recognizing foreign antigens while remaining tolerant to the body's own tissues.

Secondary lymphoid organs serve as sites where immune cells are activated and interact with antigens. These include lymph nodes, spleen, tonsils, and mucosa-associated lymphoid tissue (MALT), such as Peyer's patches in the intestines. Lymph nodes filter lymphatic fluid, trapping pathogens, while the spleen filters blood and removes aged or damaged red blood cells. MALT protects mucosal surfaces, which are the primary entry points for many pathogens.

Immune cells play specialized roles in defending the body:

B-lymphocytes (B-cells) produce antibodies, which specifically bind to antigens, neutralizing pathogens or marking them for destruction.

T-lymphocytes (T-cells) coordinate immune responses and directly destroy infected or abnormal cells. Subtypes include helper T-cells (CD4+), which stimulate other immune cells, and cytotoxic T-cells (CD8+), which kill virus-infected or tumor cells.

Natural killer (NK) cells provide rapid, nonspecific responses against virus-infected and malignant cells.

Phagocytes, including macrophages and neutrophils, engulf and digest pathogens, cell debris, and foreign particles through phagocytosis.

The immune system functions through two major defense mechanisms:

Innate immunity, which provides nonspecific, immediate defense, including physical barriers (skin, mucous membranes), phagocytic cells, NK cells, and the complement system.

Adaptive immunity, which is specific and acquired, involving B- and T-cells. Adaptive immunity produces immunological memory, allowing the body to respond more efficiently to subsequent exposures to the same pathogen.

Molecular mediators such as cytokines, chemokines, and the complement system regulate and amplify immune responses. Vaccination is a medical application of adaptive immunity, introducing antigens to stimulate the production of memory B- and T-cells, providing long-term protection against specific diseases.

The immune system is integrated with other body systems, particularly the circulatory and lymphatic systems, to distribute immune cells and molecules efficiently. Hormones, the nervous system, and metabolic status also influence immune responses. Proper functioning of the immune system is essential for preventing infections, controlling inflammation, eliminating abnormal cells, and maintaining overall health. Dysfunction can lead to immunodeficiency, autoimmune disorders, or hypersensitivity reactions.

3. Insert the missing words:

Words: lymph nodes, bone marrow, thymus, spleen, B-cells, T-cells, antibodies, phagocytes, innate immunity, adaptive immunity

The _____ is the site of T-cell maturation.

All blood cells, including immune cells, are produced in the _____.

The _____ filter lymph and provide sites for immune activation.

The _____ produces immune responses against blood-borne pathogens and old red blood cells.

_____ produce antibodies to neutralize antigens.

_____ coordinate the immune response and destroy infected cells.

_____ engulf and digest pathogens.

_____ provides the first line of nonspecific defense.

_____ provides specific, long-term immunity

4. Translate into English:

Імунна система захищає організм від інфекцій і аномальних клітин.

Кістковий мозок є джерелом усіх імунних клітин.

Тимус забезпечує дозрівання Т-лімфоцитів.

Лімфатичні вузли фільтрують лімфу і активують імунні клітини.

Селезінка видаляє старі еритроцити і бореться з патогенами у крові.

В-лімфоцити виробляють антитіла, а Т-лімфоцити координують імунну відповідь.

Фагоцити захоплюють і перетравлюють мікроорганізми.

Вакцинація стимулює адаптивний імунітет.

Тестові завдання для самоконтролю.

Which of the following is a primary lymphoid organ?

A) Spleen B) Thymus C) Lymph node D) Tonsil

B-cells function to:

A) Destroy infected cells B) Produce antibodies C) Phagocytize pathogens D) Secrete cytokines

The main site of T-cell maturation is:

A) Bone marrow B) Thymus C) Lymph nodes D) Spleen

Phagocytosis is performed by:

A) B-cells B) T-cells C) Macrophages D) Red blood cells

Innate immunity provides:

A) Specific, long-term defense B) Nonspecific, first-line defense C) Hormonal regulation D) Antibody production

Adaptive immunity provides:

A) Rapid, nonspecific defense B) Specific, long-term defense C) Mechanical digestion D) Fever response

The spleen functions to:

A) Filter blood B) Produce gametes C) Produce insulin D) Store bile

Lymph nodes:

A) Produce all blood cells B) Filter lymph and activate immune cells C) Transport oxygen D) Store hormones

Cytokines are:

A) Enzymes B) Chemical mediators that regulate immune responses C) White blood cells D) Antigens

Natural killer cells:

A) Produce antibodies B) Destroy virus-infected and tumor cells C) Transport lymph D) Stimulate hormone secretion

Vaccination stimulates:

A) Innate immunity B) Adaptive immunity C) Red blood cell production D)

Platelet aggregation

Leukocytes include:

A) Red blood cells B) White blood cells C) Platelets D) Plasma proteins

The complement system:

A) Digests food B) Amplifies immune responses C) Produces insulin D) Filters blood

Tonsils are located in:

A) Pharynx B) Brain C) Small intestine D) Kidney

Macrophages belong to:

A) Adaptive immunity B) Innate immunity C) Endocrine system D) Nervous system

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с. (комп.верстка)

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3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

Тема 13

«Залози та гормони. Гормональні розлади.»

Мета: Закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Анатомія та фізіологія ендокринної системи”; активізація набутих знань у самостійному мовленні.

Завдання: Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок здобувачів вищої освіти:

вивчити і систематизувати знання основних ЛО з теми;

оволодіти навичками пошуку ключових слів;

формувати уміння та навички висловлювати основну думку з теми.

Основні поняття:

Endocrine system, Hormone, Gland, Pituitary gland, Hypothalamus, Thyroid gland, Parathyroid glands, Adrenal glands, Pancreas, Gonads (Ovaries, Testes), Pineal gland, Thymus, Insulin, Glucagon, Cortisol, Adrenaline, Thyroxine, Growth hormone, Feedback mechanism, Target organ, Endocrine disorder.

План:

Вивчити нову лексику і граматику за темою практичного заняття 19;

Скласти план тексту *Anatomy and Physiology of the Endocrine System*;

Знати назви ендокринних залоз;

Вміти надавати визначення гормонам та функціям кожної залози.

Питання для самоконтролю:

1.1. Answer the following questions:

What is endocrinology?

2. How are glands in the human body classified?

3. What is hormone?

4. What are the major endocrine glands?

5. What is the structure of the thyroid gland?

6. What does thyroxine control?

7. What is the structure of the adrenal glands?

8. When is adrenalin secreted?

9. What is the structure of the pituitary gland?

10. What does the pituitary gland affect?

11. Where is the pineal gland situated?

12. What is melatonin?

13. Where is the thymus located?

14. What does thymosin stimulate?

15. What is the external secretion of the pancreas?

16. What is the internal secretion of the pancreas?

1.2. Describe the terms:

Endocrine system, Hormone, Gland, Pituitary gland, Hypothalamus, Thyroid gland, Parathyroid glands, Adrenal glands, Pancreas, Gonads (Ovaries, Testes), Pineal gland, Thymus, Insulin, Glucagon, Cortisol, Adrenaline, Thyroxine, Growth hormone, Feedback mechanism, Target organ, Endocrine disorder.

Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. Study suffixes pertaining to endocrine organs, hormones, and disorders:

Model: thyro/o – thyroid → thyroxine (hormone of the thyroid)

Examples of suffixes:

- itis (inflammation): thyroiditis, pancreatitis
- logy (study of): endocrinology, diabetology
- ectomy (surgical removal): thyroidectomy, adrenalectomy
- osis (condition, disease): hyperthyroidism, hypothyroidism
- pathy (disease of): endocrinopathy, pituitaryopathy
- ine (hormone): insulin, thyroxine
- agon/agonist (stimulator): glucagon

Task: Write your own examples using these suffixes related to the endocrine system.

2. Read the text, give it a title, and make 5–7 questions:

The endocrine system is a complex network of glands and organs that secrete hormones directly into the bloodstream to regulate a wide array of physiological processes, including metabolism, growth, development, reproduction, stress response, and maintenance of homeostasis. Unlike the nervous system, which communicates via electrical impulses, the endocrine system relies on chemical signaling, enabling hormones to exert their effects on specific target organs and tissues, sometimes far from the site of secretion.

Major endocrine glands include the hypothalamus, pituitary gland, thyroid gland, parathyroid glands, adrenal glands, pancreas, pineal gland, thymus, and gonads (ovaries in females and testes in males). Each gland produces hormones that regulate particular bodily functions:

The hypothalamus serves as the link between the nervous and endocrine systems, integrating neural inputs and controlling the pituitary gland via releasing and inhibiting hormones.

The pituitary gland, often called the "master gland," secretes multiple hormones, including growth hormone (GH), thyroid-stimulating hormone (TSH), adrenocorticotrophic hormone (ACTH), luteinizing hormone (LH), and follicle-stimulating hormone (FSH), which regulate growth, metabolism, and reproductive functions.

The thyroid gland produces thyroxine (T4) and triiodothyronine (T3), which control the body's metabolic rate, oxygen consumption, and energy production.

The parathyroid glands regulate calcium and phosphate balance, essential for bone health, nerve function, and muscle contraction.

The adrenal glands consist of the adrenal cortex and medulla. The cortex secretes cortisol, aldosterone, and androgens to manage stress, electrolyte balance, and

metabolism, while the medulla produces adrenaline (epinephrine) and noradrenaline (norepinephrine), which are key in the fight-or-flight response.

The pancreas functions as both an endocrine and exocrine organ. Its endocrine function involves the secretion of insulin and glucagon, which regulate blood glucose levels and energy balance.

The gonads produce sex hormones—estrogen and progesterone in females, testosterone in males—which regulate reproductive cycles, gametogenesis, secondary sexual characteristics, and sexual behavior.

The pineal gland secretes melatonin, which influences circadian rhythms and sleep-wake cycles.

The thymus produces thymosin, which is critical for the development and maturation of T-lymphocytes in the immune system.

Hormonal regulation in the endocrine system primarily operates via negative feedback loops, where the effects of a hormone inhibit further secretion to maintain homeostasis. For example, high levels of thyroid hormones inhibit TSH release from the pituitary, preventing excessive hormone production.

Disorders of the endocrine system can have widespread effects on health. Diabetes mellitus results from insufficient insulin production or action, leading to hyperglycemia. Hyperthyroidism and hypothyroidism reflect excessive or deficient thyroid hormone production, respectively, affecting metabolism, growth, and energy levels. Adrenal insufficiency and Cushing's syndrome disrupt cortisol production, impacting stress response, metabolism, and electrolyte balance. Proper endocrine function is essential for overall health, growth, development, and reproductive capability.

3. Insert the missing words:

Words: pituitary gland, thyroid gland, adrenal glands, pancreas, hypothalamus, insulin, cortisol, estrogen, testosterone, negative feedback

The _____ is often called the “master gland” because it regulates many other endocrine glands.

The _____ produces hormones that regulate metabolism, including T3 and T4.

The _____ secrete cortisol and adrenaline to manage stress and blood pressure.

The _____ controls blood glucose levels through insulin and glucagon.

The _____ links the nervous system with the endocrine system.

_____ regulates blood sugar by promoting glucose uptake into cells.

_____ is a stress hormone secreted by the adrenal cortex.

Female reproductive hormones include _____, while male reproductive hormones include _____.

Most endocrine hormones are regulated via _____ mechanisms.

4. Translate into English:

Ендокринна система регулює обмін речовин, ріст та репродукцію.

Гіпоталамус контролює функції гіпофіза.

Гіпофіз секретує гормони росту, ТТГ та АКТГ.

Щитовидна залоза виробляє тироксин та трийодтиронін.

Паращитоподібні залози підтримують баланс кальцію та фосфату.

Наднирники виділяють кортизол і адреналін.

Підшлункова залоза виділяє інсулін і глюкагон для контролю рівня цукру.

Яєчники виробляють естроген і прогестерон, а яєчка – тестостерон.

Більшість гормонів регулюються за допомогою механізму негативного зворотного зв'язку.

Тестові завдання для самоконтролю

Which gland is known as the “master gland”?

A) Thyroid gland B) Pituitary gland C) Adrenal gland D) Pancreas

Which hormone regulates blood sugar by promoting glucose uptake?

A) Cortisol B) Insulin C) Glucagon D) Adrenaline

Thyroxine and triiodothyronine are produced by:

A) Adrenal glands B) Thyroid gland C) Pancreas D) Gonads

Cortisol is secreted by:

A) Pituitary gland B) Adrenal cortex C) Hypothalamus D) Thyroid gland

Negative feedback in the endocrine system:

A) Amplifies hormone production B) Inhibits further hormone production C)

Stimulates glucose release D) Increases neural signals

Which organ links the nervous and endocrine systems?

A) Hypothalamus B) Pituitary gland C) Thyroid D) Spleen

The pancreas secretes:

A) Thyroxine B) Cortisol C) Insulin and glucagon D) Adrenaline

Which glands maintain calcium and phosphate balance?

A) Thyroid gland B) Parathyroid glands C) Adrenal glands D) Gonads

Estrogen and progesterone are produced by:

A) Testes B) Ovaries C) Adrenal glands D) Thyroid

Testosterone is secreted by:

A) Pituitary gland B) Testes C) Ovaries D) Pancreas

ACTH stimulates:

A) Thyroid hormone release B) Adrenal cortex to release cortisol C) Insulin

secretion D) Growth hormone production

The pineal gland produces:

A) Melatonin B) Insulin C) Adrenaline D) Cortisol

Hyperthyroidism results from:

A) Excess thyroid hormone B) Deficient adrenal hormone C) Excess insulin D)

Deficient cortisol

Growth hormone regulates:

A) Blood sugar B) Metabolism C) Body growth and tissue repair D) Calcium absorption

The adrenal medulla secretes:

A) Cortisol B) Adrenaline C) Thyroxine D) Insulin

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2. Інформаційні матеріали кафедри: <https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

Тема 14

«Структура ротової порожнини»

Мета: Закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Анатомія та фізіологія ротової порожнини”; активізація набутих знань у самостійному мовленні.

Завдання: Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок:

- Вивчити і систематизувати знання основних ЛО з теми;
- Оволодіти навичками пошуку ключових слів;
- Формувати уміння та навички висловлювати основну думку.

Основні поняття:

Oral cavity, Mouth, Teeth, Tongue, Palate (hard and soft), Salivary glands, Uvula, Gingiva (gums), Pharynx, Mastication, Bolus, Saliva, Amylase, Taste buds, Oral mucosa.

План:

Вивчити нову лексику і граматику за темою;

Скласти план тексту *Anatomy and Physiology of the Oral Cavity*;

Знати основні органи ротової порожнини;

Вміти давати визначення структур та їх функцій.

Питання для самоконтролю:

1.1. *Answer the following questions:*

1. What does the oral cavity consist of?
2. What is the function of the oral cavity?
3. What is the vestibule bounded by?
4. What is the maxilla?
5. What is the mandible?
6. What parts does the maxilla consist of?
7. How many processes does the maxilla have?
8. What does the mandible consist of?
9. What is an alveolar process?
10. How do the roots of the teeth held in place?
11. What is the hard palate and soft palate?
12. What part of the soft palate is called uvula?

1.2. *Describe the terms:*

Oral cavity, Mouth, Teeth, Tongue, Palate (hard and soft), Salivary glands, Uvula, Gingiva (gums), Pharynx, Mastication, Bolus, Saliva, Amylase, Taste buds, Oral mucosa.

Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. *Study suffixes pertaining to oral cavity organs and disorders:*

Model: odont/o – tooth → odontitis (inflammation of the tooth)

Examples of suffixes:

- itis (inflammation): gingivitis, stomatitis
- ectomy (removal): tonsillectomy, tooth extraction
- osis (condition): caries, periodontosis
- logy (study of): odontology, stomatology
- algia (pain): odontalgia, glossalgia
- plasty (surgical repair): gingivoplasty, palatoplasty

Task: Write your own examples using these suffixes related to the oral cavity.

2. Read the text, give it a title, and make 5–7 questions:

The oral cavity is the first part of the digestive system and plays a crucial role in the mechanical and chemical breakdown of food, preparing it for further digestion and absorption. It comprises the mouth, teeth, tongue, hard and soft palate, salivary glands, gums (gingiva), and the uvula. In addition to digestion, the oral cavity is important for speech, respiration, and immune defense.

Mechanical digestion begins with mastication (chewing), during which teeth cut, tear, and grind food into smaller pieces, increasing its surface area for enzymatic action. The tongue manipulates the food, mixes it with saliva, and forms a cohesive bolus for swallowing. It is also essential for taste perception, containing taste buds that detect five primary flavors: sweet, salty, sour, bitter, and umami.

Saliva, secreted by the parotid, submandibular, and sublingual glands, moistens food and contains digestive enzymes such as amylase, which initiates the breakdown of starches into simpler sugars. Saliva also contains lysozyme and immunoglobulins, which help protect against microbial infections. The oral mucosa lines the cavity, protecting underlying tissues, maintaining moisture, and facilitating immune defense.

The hard palate forms the bony roof of the mouth, separating the oral cavity from the nasal cavity, while the soft palate is a muscular structure that elevates during swallowing to prevent food from entering the nasopharynx. The uvula, hanging from the posterior edge of the soft palate, directs food into the pharynx, contributes to the gag reflex, and assists in articulation of certain speech sounds.

The gingiva (gums) anchor the teeth and provide protection against mechanical trauma and microbial invasion. Together with the teeth, tongue, and palate, the oral cavity ensures proper mastication, enzymatic digestion, bolus formation, and swallowing, while also participating in taste perception, speech, respiration, and oral immune defense.

3. Insert the missing words:

Words: teeth, tongue, saliva, mastication, bolus, palate, uvula, taste buds, oral mucosa

The _____ are responsible for cutting, tearing, and grinding food.

The _____ manipulates food and forms it into a _____ for swallowing.

_____ moistens food and contains enzymes to start chemical digestion.

The process of chewing is called _____.

The _____ separates the oral and nasal cavities.

The _____ helps direct food into the pharynx and aids speech.
_____ detect flavors such as sweet, sour, salty, bitter, and umami.
The _____ protects underlying tissues and keeps the mouth moist.

4. Translate into English:

Ротова порожнина є першою частиною травної системи.

Зуби ріжуть, рвуть і подрібнюють їжу.

Язик формує комок їжі для ковтання і сприймає смаки.

Слина зволожує їжу і містить ферменти для початкового травлення.

Тверде піднебіння відділяє ротову порожнину від носової.

М'яке піднебіння і язичок направляють їжу в глотку.

Смакові сосочки розпізнають п'ять основних смаків.

Слизова оболонка ротової порожнини захищає тканини і підтримує вологість.

Тестові завдання для самоконтролю

What is the primary function of the oral cavity?

- A) Nutrient absorption B) Mechanical and chemical digestion C) Blood filtration D) Hormone production

The process of chewing is called:

- A) Mastication B) Peristalsis C) Swallowing D) Digestion

Which enzyme in saliva starts carbohydrate digestion?

- A) Lipase B) Amylase C) Pepsin D) Trypsin

The tongue is responsible for:

- A) Cutting food B) Manipulating food and taste C) Saliva production D) Bile secretion

What structures detect taste?

- A) Uvula B) Teeth C) Taste buds D) Gingiva

The hard palate separates the oral cavity from:

- A) Esophagus B) Pharynx C) Nasal cavity D) Larynx

The uvula contributes to:

- A) Saliva production B) Speech and directing food into the pharynx C) Absorption of nutrients D) Chewing

Which glands produce saliva?

- A) Thyroid B) Parotid, submandibular, sublingual C) Adrenal D) Pituitary

The oral mucosa functions to:

- A) Produce enzymes B) Protect tissues and maintain moisture C) Pump blood D) Absorb nutrients

Bolus is:

- A) Chewed and moistened food ready to swallow B) Digestive enzyme C) Type of taste bud D) Saliva secretion

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с.

(комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
2. English for Dentistry Students. Step 1. Anatomy: Student's Book: / N. V. Kuchumova, L. V. Manyuk, O. H. Vasylenko; edited by P. A. Sodomora. – Danylo Halytsky Lviv National Medical University, 2019. –102 p.
3. Career Paths: Dentistry - Student's Book by Virginia Evans, Jenny Dooley, James Caldwell DDS. Express Publishing, 2016. – 115 p.
4. Medical Terminology. An Illustrated Guide / Barbara Janson Cohen, Shirley A.Jones. Ninth Edition. Jones and Bartlett Learning, 2021, 670 p.
5. Raymond Murphy. English Grammar in Use. Cambridge University Press, 2019. – 380 p.
6. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Електронні інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри:
<https://info.odmu.edu.ua/chair/philosophy/files/811/ua>
3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

Тема 15

«Прорізання зубів. Зубна формула людини»

Мета: Закріплення базової лексики теми, а також основних зразків мовлення, які використовуються у комунікативних ситуаціях “Анатомія зуба” та “Типи зубів”; активізація набутих знань у самостійному мовленні.

Завдання: Формування умінь і навичок інтерпретації змісту тексту англійською мовою.

Розвиток комунікативних навичок:

Вивчити і систематизувати знання основних ЛО з теми;

Оволодіти навичками пошуку ключових слів;

Формувати вміння та навички висловлювати основну думку.

Основні поняття: Tooth, Crown, Root, Enamel, Dentin, Pulp, Pulp cavity, Cementum, Periodontal ligament, Gingiva, Apex, Neck, Apical foramen.

План:

- Виконати завдання до практичних занять 21 та 22;
- Засвоїти терміни, що стосуються теми;
- Диференціювати словотворчі елементи та утворювати терміни зі стоматології;
- Вивчити будову зуба та типи зубів і їх функції;
- Підготувати доповідь про етапи прорізання зубів в людини.

Питання для самоконтролю:

1.1. Answer the following questions:

1. What parts does a tooth consist of?
2. How is the junction of crown and root called?
3. What layers is a tooth composed of?
4. What layer of the tooth is called the enamel?
5. What is the hardest substance in the body insensitive to pain?
6. What does enamel consist of?
7. What part is called the neck of the tooth?
8. What is cementum of the tooth?
9. What layer of the tooth is insensitive to pain?
10. What is the pulp of the tooth?
11. What parts does the pulp consist of?
12. Why is the pulp very sensitive to pain?
13. What is the outermost layer of the pulp called?
14. What is the pulp chamber?
15. What are the functions of the pulp?
16. What supporting structures can you name?
17. What types of bones does each jaw consist of?
18. What groups are the teeth divided into according to their form and function?
19. What is the function of incisors?
20. What function do cuspids perform?

21. What types of teeth are used for mastication or chewing?
22. How many roots do incisors have?
23. What tooth has the longest root in the whole dentition?
24. How many roots does the upper 1st premolar have?
25. What teeth have three roots?
26. How many roots do molars have?
27. How do the roots of deciduous teeth look like?
28. Roots of what teeth are frequently fused together?
29. What teeth are called wisdom teeth?
30. What is the clinical formula of the teeth?

1.2. Describe the terms:

Tooth, Crown, Root, Enamel, Dentin, Pulp, Pulp cavity, Cementum, Periodontal ligament, Gingiva, Apex, Neck, Apical foramen, Incisors, Canines, Premolars, Molars, Crown, Root, Enamel, Dentin, Pulp, Mastication, Function, Occlusion..

Завдання для самостійного опрацювання матеріалу:

Практичні завдання:

1. Study suffixes pertaining to teeth and dental conditions:

Model: dent/o – tooth → dentitis (inflammation of the tooth)

Examples:

- itis (inflammation): pulpitis, gingivitis
- ectomy (removal): tooth extraction, pulpectomy
- osis (condition): periodontosis, caries
- plasty (repair): gingivoplasty, crownoplasty

Task: Write your own examples using these suffixes related to teeth.

2. Read the text, give it a title, and make 5–7 questions:

Humans have four main types of teeth, each specially adapted for specific functions in mastication, speech, and maintaining the structure of the jaw. These types—incisors, canines, premolars, and molars—differ in shape, size, number of roots, and surface morphology, reflecting their unique roles in processing food and facilitating articulation.

Incisors – These are the front teeth, with four in each jaw (central and lateral incisors). Incisors are characterized by a thin, sharp, chisel-shaped crown and a single conical root. Their primary function is cutting, shearing, and biting food into manageable portions, initiating the mechanical phase of digestion. Incisors also play an important role in speech articulation, particularly in the production of sounds such as “s,” “t,” and “th.” The enamel covering the crown is especially resilient to wear, as incisors frequently encounter mechanical stress. The pulp cavity within contains blood vessels, lymphatics, and sensory nerves, allowing the detection of pressure, temperature, and pain.

Canines – Positioned immediately lateral to the incisors, there are two canines in each jaw. Canines are pointed, conical teeth with a long, strong root, making them the longest teeth in the human dentition. Their main function is tearing and piercing food, particularly fibrous or tough material. Canines also act as guiding teeth, maintaining proper alignment of the dental arches during occlusion (the

contact between upper and lower teeth). Their robust root provides structural support for adjacent teeth, and they contribute to facial aesthetics by supporting the corners of the mouth.

Premolars – Located posterior to the canines, adults have two premolars on each side of both jaws. Premolars are characterized by a broad occlusal surface with one or two cusps (points), designed for crushing, tearing, and grinding food. Most premolars have one or two roots, and their morphology represents a transitional function between the tearing canines and the grinding molars. Premolars also play a role in maintaining the vertical height of the face and supporting the cheeks, which influences facial contour. The enamel on premolars is thick, resisting wear from lateral and vertical masticatory forces.

Molars – Positioned at the posterior end of the dental arches, adults typically have three molars per quadrant, including third molars (wisdom teeth). Molars have large, broad occlusal surfaces with multiple cusps and two or three roots, providing maximum efficiency in chewing, crushing, and grinding food into smaller particles suitable for swallowing and further digestion. Molars contribute significantly to the mastication of fibrous and coarse foods and play a critical role in maintaining occlusal stability and proper alignment of the dental arches. Their multiple roots anchor them firmly in the alveolar bone, allowing them to withstand substantial masticatory forces over a lifetime.

Each type of tooth shares basic structural components:

Crown – The visible portion above the gingiva, covered by enamel, which protects against mechanical damage and acid erosion.

Root – Anchors the tooth in the alveolar bone via the periodontal ligament, covered with cementum.

Dentin – Forms the bulk of the tooth, providing resilience and transmitting stimuli from the enamel to the pulp.

Pulp cavity – Contains blood vessels, lymphatics, and nerves, supplying nutrients, immune cells, and sensory feedback to the tooth.

The combined action of incisors cutting, canines tearing, premolars crushing, and molars grinding ensures efficient mastication, facilitating mechanical breakdown of food, stimulating saliva production, and preparing food for chemical digestion in the stomach and small intestine. Proper alignment (occlusion) and coordinated function of these teeth also prevent uneven wear, reduce stress on the temporomandibular joint, and maintain oral health, facial symmetry, and effective speech articulation.

3. Insert the missing words:

Words: crown, root, enamel, dentin, pulp, cementum, periodontal ligament, gingiva, apex, neck

The _____ is the visible part of the tooth above the gum line.

The _____ anchors the tooth into the alveolar bone.

The hardest tissue covering the crown is _____.

The bulk of the tooth beneath enamel is _____.

The soft tissue inside the tooth is called _____.
The _____ covers the root and helps attach it to the ligament.
The _____ surrounds the tooth and protects its base.
The junction between crown and root is the _____.
The tip of the root containing the foramen is the _____.
The _____ connects the tooth to the alveolar bone.

4. Translate into English:

Зуб складається з коронки та кореня.
Коронка покрита емаллю, найтвердішою тканиною в організмі.
Дентин формує основну частину зуба під емаллю.
Пульпа містить кровоносні судини та нерви.
Цемент покриває корінь зуба і допомагає його прикріпленню до періодонтальної зв'язки.
Ясна оточують зуб і захищають його основу.
Апекс кореня містить апікальний отвір для судин та нервів.
Різці розташовані спереду і призначені для різання їжі.
Кліки гострі і допомагають рвати їжу.
Премоляри мають широку поверхню для подрібнення їжі.
Моляри – найбільші зуби, відповідальні за жування.
Кожен зуб має коронку, корінь, дентин та пульпу.

Тестові завдання для самоконтролю

The part of the tooth visible above the gum is:

A) Root B) Crown C) Pulp D) Neck

The hardest tissue in the human body covering the tooth is:

A) Dentin B) Enamel C) Cementum D) Pulp

The soft tissue inside the tooth containing vessels and nerves is:

A) Dentin B) Pulp C) Enamel D) Cementum

The junction between the crown and the root is called:

A) Apex B) Neck C) Gingiva D) Periodontal ligament

The root is anchored to the alveolar bone by the:

A) Enamel B) Cementum C) Periodontal ligament D) Pulp

The bulk of the tooth beneath the enamel is:

A) Dentin B) Pulp C) Cementum D) Gingiva

The tip of the root where vessels and nerves enter is:

A) Neck B) Apex C) Crown D) Bolus

Which tissue covers the root of the tooth?

A) Enamel B) Cementum C) Dentin D) Pulp

The gums surrounding the tooth are called:

A) Cementum B) Gingiva C) Dentin D) Periodontal ligament

The main functions of teeth include:

A) Cutting, tearing, grinding food B) Producing saliva C) Digesting proteins D) Absorbing nutrients

Incisors are used for:

A) Grinding B) Cutting C) Tearing D) Crushing

Canines have:

A) Flat edges B) Multiple cusps C) Pointed tips D) Broad surfaces

Premolars are located:

A) In the front B) Next to incisors C) Behind canines D) At the back

Molars usually have:

A) One root B) Two or three roots C) No roots D) Only enamel

Which type of teeth is responsible for tearing food?

A) Incisors B) Canines C) Premolars D) Molars

The largest teeth in the human mouth are:

A) Incisors B) Canines C) Premolars D) Molars

Cusps are:

A) The roots of teeth B) The pointed or rounded projections on chewing surfaces C)

The enamel covering D) The pulp tissue

How many incisors are in the adult upper jaw?

A) Two B) Four C) Six D) Eight

Teeth that help in grinding food are:

A) Incisors B) Canines C) Premolars and Molars D) None

Proper occlusion ensures:

A) Effective chewing B) Strong gums C) Tooth color D) Saliva production

Список рекомендованої літератури:

Основна:

1. English for first year dentistry students. – Одеса: ОНМедУ, 2023. – 212 с.
(комп.верстка)

Додаткова:

1. Terms in Dental Practice: Student's Guide / P. A. Sodomora, L. V. Gutor, O. V. Vasylenko, T. P. Nazarenko-Crane. – Danylo Halytsky LNMU, 2020. – 32 p.
2. English for Dentistry Students. Step 1. Anatomy: Student's Book: / N. V. Kuchumova, L. V. Manyuk, O. H. Vasylenko; edited by P. A. Sodomora. – Danylo Halytsky Lviv National Medical University, 2019. –102 p.
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6. Sabluk A. H., Levandovska L.V. English for medical students. – BCB Medicine, 2018.- 576 p.

Електронні інформаційні ресурси:

1. Одеський національний медичний університет: <https://onmedu.edu.ua/>
2. Інформаційні матеріали кафедри:
<https://info.odmu.edu.ua/chair/philosophy/files/811/ua>

3. Webster's Dictionary and Thesaurus: <https://www.merriam-webster.com/>
4. Longman Dictionary of Contemporary English: <https://www.ldoceonline.com/>
5. Medical Dictionary Online: <https://www.online-medical-dictionary.org/>

Тема 16

«Стоматологічна клініка. Етапи стоматологічного огляду пацієнта»

Мета: Закріплення базової лексики та мовних зразків, що використовуються під час огляду пацієнта; розвиток навичок усного та письмового висловлення англійською мовою; формування умінь оцінювати стан ротової порожнини.

Завдання: Формування умінь і навичок інтерпретації текстів та клінічних описів англійською мовою.

Розвиток комунікативних навичок:

Вивчити і систематизувати знання основних ЛО з теми;

Оволодіти навичками пошуку ключових слів;

Формувати вміння висловлювати основну думку про стан пацієнта.

Основні поняття:

Patient Examination, Medical History, Dental History, Inspection, Palpation, Percussion, Auscultation, Diagnosis, Symptoms, Signs, Complaint, Visual Examination, Oral Examination, Extraoral Examination, Intraoral Examination, Medical Record, Assessment, Consultation, Treatment Plan.

План:

Вивчити нову лексику та граматику за темою;

Ознайомитися зі стандартним алгоритмом огляду пацієнта;

Вміти описувати стан ротової порожнини та зубів;

Скласти порівняльну таблицю основних етапів загального медичного та стоматологічного огляду пацієнта;

Навчитися формулювати клінічні висновки англійською мовою.

Питання для самоконтролю:

1.1. Answer the following questions:

Why is it necessary to determine both the diagnosis and etiology of a disease?

What is the difference between objective and subjective symptoms?

Name the three stages of a physical examination.

What are the main techniques used in physical examination?

Give examples of laboratory studies and what they can reveal.

How do instrumental studies contribute to diagnosis?

Why is understanding pathogenesis important for a doctor?

What role does auscultation play in detecting diseases?

What information is collected during the medical and dental history?

What is meant by “chief complaint”?

Which structures are assessed during extraoral examination?

Which structures are assessed during intraoral examination?

What dental conditions can be observed during a routine check-up?

Name some diagnostic tools used in dental examination.

Why is documentation of findings important?

1.2. Describe the terms:

Patient Examination, Medical History, Dental History, Inspection, Palpation, Percussion, Auscultation, Diagnosis, Symptoms, Signs, Complaint, Visual

Examination, Oral Examination, Extraoral Examination, Intraoral Examination, Medical Record, Assessment, Consultation, Treatment Plan.

Завдання для самостійного опрацювання матеріалу.

Практичні завдання:

1. Read the text, give it a title, and make 5–7 questions:

Extraoral Examination – This part of the dental assessment focuses on structures outside the oral cavity, providing valuable information about general health and potential systemic or localized issues affecting the oral region. The dentist begins with a careful inspection of the face, noting asymmetry, swelling, skin lesions, or discoloration. Lips are examined for cracks, ulcers, pigmentation changes, or signs of trauma. Jaw symmetry is assessed both visually and by palpation, checking for deviations, swelling, tenderness, or abnormal movements that may indicate temporomandibular joint (TMJ) disorders or facial nerve problems. Regional lymph nodes (submandibular, submental, preauricular, cervical) are palpated to detect enlargement, tenderness, or firmness, which may signal infection, inflammation, or neoplastic processes.

Intraoral Examination – This stage evaluates the structures within the oral cavity, including both soft and hard tissues. The dentist inspects the lips, labial and buccal mucosa, tongue, floor of the mouth, hard and soft palate, and oropharynx, checking for lesions, swelling, color changes, ulcerations, or signs of systemic disease. Teeth are examined for alignment, occlusion, presence of plaque, calculus, caries, cracks, fractures, and restorations. Gingiva is assessed for color, contour, consistency, and signs of inflammation or recession. The dentist also evaluates oral hygiene, mucosal moisture, and functional movements such as tongue mobility, speech, and mastication.

Diagnostic Tools and Techniques – The dentist may use radiographs (periapical, bitewing, panoramic) to detect hidden caries, bone loss, or abnormalities. Periodontal probes measure pocket depths and assess attachment loss to diagnose periodontal disease. Intraoral cameras provide magnified images for detailed evaluation and patient education. Other tools may include explorers, mirrors, and articulating paper to assess occlusion and restorations.

Documentation and Communication – All findings are meticulously recorded in the patient's dental chart, including visual observations, palpation results, radiographic findings, and periodontal measurements. This documentation serves as a baseline for treatment planning, monitoring progress, and legal record-keeping. Effective communication with the patient is crucial: the dentist explains findings, potential issues, treatment options, and preventive measures in understandable terms, ensuring the patient is informed and engaged in their oral health care.

Clinical Significance – A thorough extraoral and intraoral examination allows early detection of dental and systemic diseases, identification of risk factors for oral pathologies, and development of an individualized treatment plan. It is essential for preventive dentistry, diagnosis of oral lesions, evaluation of periodontal and dental status, and overall patient management, contributing to improved oral and general health outcomes.

2. Insert the missing words:

Words: diagnosis, etiology, pathogenesis, symptoms, history-taking, physical examination, laboratory studies, instrumental studies, palpation, auscultation

Before treatment, it is important to establish the correct _____ of the disease.

Determining the cause of a disease is called its _____.

The doctor must understand the _____ of the disease, i.e., how it develops.

Signs and manifestations of a disease are called _____.

The first step in diagnosis usually involves _____.

Inspection, palpation, percussion, and auscultation are part of _____.

Blood, urine, and sputum tests are examples of _____.

X-rays, ECG, and cystoscopy belong to _____.

Feeling the body to detect abnormalities is known as _____.

Listening to internal sounds such as heart or lung sounds is called _____.

3. Translate into English

Перед початком лікування необхідно встановити точний діагноз.

Важливо визначити причини захворювання.

Лікар повинен добре знати механізм розвитку хвороби.

Симптоми допомагають визначити наявність хвороби.

Фізикальне обстеження включає огляд, пальпацію, перкусію та аускультацію.

Лабораторні дослідження допомагають підтвердити діагноз.

Інструментальні методи, такі як рентген або ЕКГ, виявляють приховані патології.

Огляд пацієнта починається зі збору анамнезу.

Важливо визначити головну скаргу пацієнта.

При зовнішньому огляді оцінюють обличчя, губи та щелепи.

При внутрішньому огляді перевіряють м'які та тверді тканини.

Лікар оцінює прикус та наявність нальоту і карієсу.

Рентгенівські знімки допомагають виявити приховані патології.

Тестові завдання для самоконтролю

The first step before treating a patient is:

- A) Physical examination B) History-taking C) Laboratory studies D) Instrumental studies

Determining the cause of a disease is called:

- A) Pathogenesis B) Etiology C) Symptoms D) Diagnosis

Which of the following is a subjective symptom?

- A) Vomiting B) Haemorrhage C) Headache D) Edema

Palpation is used to:

- A) Listen to internal sounds B) Feel body structures to detect abnormalities C) Take X-rays D) Analyze blood samples

Auscultation is useful for detecting:

- A) Heart murmurs and lung rales B) Tooth decay C) Joint stiffness D) Skin rashes

Laboratory tests can detect:

A) Structural bone abnormalities B) Blood disorders and infections C) Jaw asymmetry D) Facial expressions

X-rays are an example of:

A) Laboratory studies B) Instrumental studies C) History-taking D) Auscultation

Symptoms like cough, fever, and edema are:

A) Subjective B) Objective C) Etiological D) Instrumental

The physical examination includes:

A) General examination, local examination, examination of body systems B) Only inspection of the oral cavity C) Only X-ray imaging D) Only laboratory tests

Understanding the pathogenesis of a disease helps the doctor to:

A) Schedule appointments B) Predict how the disease will develop and choose treatment C) Take radiographs D) Record patient weight

The first step in a dental examination is:

A) Extraoral examination B) Intraoral examination C) Collecting medical and dental history D) Taking radiographs

The main reason a patient visits a dentist is called:

A) Chief complaint B) Diagnosis C) Medical history D) Treatment plan

Extraoral examination includes inspection of:

A) Teeth B) Lymph nodes C) Tongue D) Gingiva

Intraoral examination focuses on:

A) Face and lips B) Soft and hard tissues of the mouth C) Neck muscles D) Eyes

Dental occlusion refers to:

A) Tooth color B) Bite alignment C) Tooth decay D) Plaque presence

Radiographs are used to:

A) Examine occlusion B) Detect hidden cavities and bone pathology C) Clean teeth D) Measure blood pressure

Soft tissues include:

A) Teeth and alveolar bone B) Lips, tongue, cheeks, palate C) Jaw bones D)

Salivary glands

Plaque is:

A) Hardened bone B) Bacterial biofilm on teeth C) Part of the enamel D) Gums

Proper communication with a patient is important for:

A) Scheduling appointments B) Explaining findings and treatment C) Taking radiographs D) Measuring teeth

Which of the following is NOT part of intraoral examination?

A) Gingiva B) Tongue C) Face symmetry D) Teeth

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