#### ODESSA NATIONAL MEDICAL UNIVERSITY

ОДЕСЬКИЙ НАЦІОНАЛЬНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

#### FOREIGN LANGUAGE DEPARTMENT

КАФЕДРА ІНОЗЕМНИХ МОВ

### **ENGLISH FOR MEDICAL STUDENTS**

### ПОСІБНИК З АНГЛІЙСЬКОЇ МОВИ

ДЛЯ СТУДЕНТІВ 2 КУРСУ МЕДИЧНОГО ФАКУЛЬТЕТУ

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#### **TYPES OF DISEASES**

Exercise 1. Topic vocabulary:

caregiver, n	[ˈkɛəˌgɪvə]	той, хто доглядає кого-небудь
contagious, adj	[kən 'teɪdʒəs]	інфекційний, заразний
cope, v	[ˈkəʊp]	справитися
cure, v	[ˈkjʊə]	виліковувати
define, v	[ dɪ' faɪn]	визначати
degenerative, adj	[dı'dzenə retiv]	прогресуючий (при хворобі)
dementia, n	[dɪˈmenʃɪə]	слабоумство, недоумство
geriatric, adj	[dʒɛrɪˈætrɪk]	геріатричний, що відноситься до
		лікування людей похилого віку
guess-work, n	[ˈgeswəːk]	здогадка; припущення
handle, <i>v</i>	[ˈhændl]	керувати
heal, v	[hi:1]	виліковувати, загоювати
inherit, v	[in' herit]	успадковувати
morbidity, n	[mɔːˈbɪɪtɪ]	хворобливість, захворюваність
recovery, n	[rɪˈ kʌvərɪ]	видужання
superstition, <i>n</i>	[su:pə 'stɪʃən]	(релігійний) забобон
suffer from, v	[ˈsʌfə]	страждати
tremendous, adj	[trɪ'mendəs]	жахливий, величезний
tumour, n	[ˈtjuːmə]	пухлина

#### **Exercise 2. Speak correctly:**

Alzheimer's disease - [ ælts 'haɪmə(r)z dı'zi:z ]; neoplastic - [ niəʊ 'plæstik]; rehabilitation- [ ri(h)ə bılı'teɪʃən]; counsel- ['kaʊnsəl]; AIDS- ['eidz]; recipient- [rɪ' sɪpɪənt]; vehicle- ['vi: (ə)kl]; carer- ['kɛərə]; terminal- ['tə:mɪnəl]; meals-on-wheels - [ mi:lzən ' wi:lz]

#### **Exercise 3. Match the following words and word combinations:**

1. a housebound	<ul><li>а) «обід на колеса»</li></ul>
2. interchangeable	<b>b</b> ) працездатний
3. applied sciences	с) радити, рекомендувати
4. volunteers	<b>d</b> ) невиліковні хвороби
5. support groups	е) хвороба, що постійно погіршується
6. caregiver	f) тримати в руках, справлятися
7. able-bodied	<b>g</b> ) групи підтримки
8. degenerative disease	h) величезний прогрес
9. inherited diseases	і) прикладні науки
10. to handle	<b>j</b> ) спадкові захворювання
11. to counsel	<b>k</b> ) опікун, годувальник
12. tremendous progress	l) прикутий до дому
13. meals-on-wheels	<b>m</b> ) волонтери
14. terminal diseases	n) взаємозамінний; рівнозначний

## Exercise 4\*. Read the definitions of the words you will meet in the text. Have you ever heard about that?

- 1. **Meals- on- Wheels** are programs that deliver meals to individuals at home who are unable to purchase or prepare their own meals. Because they are housebound, many of the recipients are the elderly, and many of the volunteers are also elderly but able-bodied and able to drive wheeled vehicles, usually a van.
- 2. **Alzheimer's disease** (**AD**) [ælts'haɪmə(r)z dı'zi:z], is the most common form of dementia. There is no cure for the disease which eventually leads to death. It was first described by German psychiatrist and neuropathologist Alois Alzheimer in 1906 and was named after him. Most often, AD is diagnosed in people over 65 years of age.

## Exercise 5. Translate the sentences. Pay attention to *Perfect Active* and *Passive*:

- 1. Health has traditionally been defined as the freedom from disease.
- 2. Medicine has made tremendous progress in the last several hundred years.
- 3. The lecture on the development of at-home medical services has been delivered today.
  - 4. A week before the admission to the hospital he had had bronchitis.
  - 5. People had suffered from illnesses since they first appeared on the earth.
- 6. The victim of a car accident will have been delivered to the emergency unit by the arrival of the team of neurosurgeons.
- 7. Before the diagnosis was made the patient had been examined by a ward doctor.
  - 8. The nurse has not determined the patient's blood group yet.

## Exercise 6. Read the text and be ready to discuss it: TYPES OF DISEASES

Health has traditionally been defined as the freedom from disease. Disease is a disordered state of a tissue, organ, system or organism during which this part can't function normally. In many cases, the terms *disease*, *disorder*, *morbidity* and *illness* are used interchangeably.

Humans have suffered from illnesses since they first appeared on the earth about 2,5 million years ago. In those times treatment was based largely on superstition and guesswork. Medicine has made tremendous progress in the last several hundred years. Today, it is possible to cure, control or prevent hundreds of diseases.

Nowadays there are about sixty thousand diseases. It is quite clear that if we want to put an end to at least a small part of them it is necessary to organize a process of training doctors and pharmacists at a high level. These specialists must have good knowledge in order to avoid mistakes in the process of diagnosing and treatment.

There are different types of diseases. Such as inherited, infectious, allergic, nutritional, toxic, neoplastic, degenerative diseases that make patients suffer. Diseases can strike almost any part of the body. Besides diseases can be classified as contagious and non-contagious, inherited and non-inherited, and as diseases, which have different

causes, such as poisoning, or immunologic. We can also speak of geriatric diseases, which occur in aging people. Many diseases are tightly connected with our lifestyle or profession (e.g. illnesses caused by the lack of movement as most office workers have). And of course we can also speak of illnesses, which occur chiefly in certain climates and geographical regions (e.g. tropical disease – malaria).

Each type of diseases should be treated by specially trained specialists.

Medical specialists, psychologists, social workers help patients and their families cope with chronic, acute or terminal illnesses and handle problems that may stand in the way of recovery or rehabilitation. They may organize support groups for families of patients suffering from cancer, AIDS, Alzheimer's disease, or other illnesses. They also advise family caregivers, counsel patients, and help plan for their needs after discharge by arranging for at-home services – from meals-on-wheels to oxygen equipment.

But we can help our body to fight and prevent many diseases ourselves. Organism itself is a complicated machine and has barriers against infections. And as the best treatment is prevention we should carefully look after ourselves, keep a healthy lifestyle: «Early to bed, early to rise makes a man healthy, wealthy and wise".

#### **Exercise 7 Answer the questions:**

- 1. What is health?
- 2. What is disease?
- 3. What other terms have the meaning "disease"?
- 4. How many diseases exist?
- 5. What are the main types of diseases?
- 6. What diseases are connected with our lifestyle? Can you give your own examples?
- 7. How can psychologists and social workers help patients and their families?
- 8. What is the English equivalent of the Russian proverb "Хто рано лягає і рано встає, здоров'я, багатство і розум наживе »?

### **Exercise 8. Translate into English:**

Порушення стану тканин та систем організму, страждати від захворювань, базуватись на забобонах і здогадках, лікувати та попереджувати хвороби, уникнути помилок у діагностиці та лікуванні, заразні і незаразні хвороби, спадкові та неспадкові хвороби, пухлинні хвороби, літні люди, вікові хвороби (хвороби літнього віку), справлятися з хронічними та гострими хворобами, одужання та реабілітація, організувати послуги на дому, кисневе обладнання, підтримувати здоровий спосіб життя

Exercise 9. What types of the diseases are defined below? Use the terms from the box:

nutritional	contagious	terminal	neoplastic	allergic	chronic	
nutritional	contagious	terminal	neoplastic	allergic	chronic	

<sup>1) ... -</sup> a disease transmissible by direct or indirect contact; communicable.

- 2) ... a disease that cannot be cured or adequately treated and that is reasonably expected to result in the death of the patient.
- 3) ... a disease characterized by tumours due to the excessive division of cells
  - 4) ... a long-lasting condition that can be controlled but not cured.
  - 5) ... a hypersensitivity disorder of the immune system.
- 6) ... a disease which is directly or indirectly caused by a lack of essential in the diet.

# Exercise 10. Refresh in memory the names of medical specialists. Tell what the specialists deal with using the information given in the right column:

Model: a) Dentist is a specialist in oral diseases.

b) Dentist deals with oral diseases.

b) Dentist dedis with ordi discuses.		
1. ophthalmologist	a) skin problems	
2. orthodontist	b) heart problems	
3. obstetrician	c) blood diseases	
4. podiatrist	d) cancer	
5. urologist	e) pregnancy	
6. pediatrician	f) brain disorders	
7. gynecologist	g) problems of the elderly	
8. oncologist	h) eye diseases	
9. neurologist	i) bones and muscles problems	
10. dermatologist	j) foot problems	
11. endocrinologist	k) X-ray	
12. cardiologist	l) children's problems	
13. hematologist	m) women's problems	
14. orthopedist	n) urinary and kidney problem	
15. gerontologist	o) problems with glands	
16. radiologist	p) the teeth	

### **Exercise 11. Put questions to the underlined words:**

- 1. Death due to disease is called death by natural causes.
- 2. Muslim rulers built large hospitals <u>in Delhi</u> in 1719.
- 3. The term chronic is usually applied when the course of disease lasts more the three month.
  - 4. Nowadays there are about <u>sixty thousand</u> diseases.
- 5. People who eat a mediterranean diet have a lower risk of Alzheimer's disease (AD).
- 6. Some studies have shown <u>an increased risk of developing AD with environmental factors such as intake of metals, particularly aluminium.</u>
- 7. Meals on Wheels originated in the United Kingdom <u>during the Second World War</u>.
  - 8. Many diseases are tightly connected with <u>our lifestyle or profession</u>.

### Exercise 12. Open the brackets using *Perfect Active* or *Passive*. Translate them:

- 1. This medicine (to cure) him.
- 2. He (to give) the intravenous injection before the ambulance came.
- 3. The ophthalmologist (to examine) me eyes before he gave me glasses.
- 4. A new substance (to test) for antimicrobial activity.
- 5. The epidemic of flu (to stop) by March.
- 6. He (to make) his report at the Congress.
- 7. In recent years isotopic ultrasound (to use) to reveal pathologic process in the liver.
  - 8. The physician just (to palpate) the patient with suspected appendicitis.

#### **Exercise 13. Discuss the situation with your partner:**

You go to the doctor for a routine check-up and the doctor finds you have a problem and suggests that you see a specialist. Your friend had a similar problem and his doctor told him to go to a physiotherapist for the treatment. He felt much better. Would you follow your doctor's advice, tell your doctor about your friend, ask your friend for the name of his physiotherapist, say nothing to your doctor, or get another opinion?

# Exercise 14. Arrange the following sentences in a correct order to describe the following term «хвороба»:

- 1. There are different types of diseases. Such as inherited, infectious, allergic, nutritional, toxic, neoplastic, degenerative diseases that make patients suffer.
- 2. Disease is a disordered state of a tissue, organ, system or organism during which this part can't function normally.
- 3. Medical specialists, psychologists, social workers may help the patients and their families organize support groups in order to cope with chronic, acute or terminal illnesses and handle problems that may stand in the way of recovery or rehabilitation.
  - 4. Health has traditionally been defined as the freedom from disease.
- 5. Such diseases as lung diseases, skin diseases and some infectious disease may be tightly connected with our lifestyle.

### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення:

- 1. порушення стану тканин та систем організму
- 2. страждати від захворювань
- 3. заразні і незаразні хвороби
- 4. спадкові та неспадкові хвороби
- 5. справлятися з хронічними та гострими хворобами
- 6. невиліковні хвороби
- 7. пухлинні хвороби

- 8. хвороби літнього віку
- 9. лікування і профілактика
- 10. підтримувати здоровий спосіб життя

### II. Дайте відповідь на наступні питання:

- 1. What is health?
- 2. What is disease?
- 3. What are the main types of diseases?
- 4. What diseases are connected with our lifestyle?
- 5. How can psychologists and social workers help patients and their families?

#### **III.** Розкрийте поняття:

хвороба

#### **Test**

- **1.** Health ... as the freedom from disease.
- a) had traditionally been defined
- **b**) has traditionally been define
- c) to have traditionally been defined
- **d**) having traditionally been defined
- e) have traditionally been defined
- **2.** Disease is a .... state of a tissue, organ, system or organism during which this part can't function normally.
  - a) disordered
  - **b**) healthy
  - c) diseased
  - **d**) normal
  - e) usual
- **3.** In many cases, the terms *disease*, *disorder*, *morbidity* and *illness* are used....
  - a) change
  - **b**) interchange
  - c) interchangeably
  - **d**) changeably
  - e) changeable
- **4.** Humans have suffered from illnesses since they first appeared on the earth about .... years ago.
  - a) 2,5 million
  - **b**) 2,5 thousand
  - c) 2,5 hundred
  - **d**) 2,5
  - e) 25 hundred
  - 5. We can also speak of geriatric diseases, which occur .... aging people.
  - a) in
  - **b**) from
  - c) on

- **d**) at
- e) by
- **6.** Nowadays there are about ....diseases.
- a) six thousand
- **b)** sixteen thousand
- c) sixty thousand
- **d)** sixty six thousand
- e) sixty sixteen thousand
- **7.** And as the best treatment is prevention we should carefully look after...., keep a healthy lifestyle.
  - a) our
  - **b**) themselves
  - c) itself
  - **d**) yourselves
  - e) ourselves
  - **8.** In ancient times treatment .... superstition and guesswork.
  - a) was based largely upon
  - **b)** was based largely in
  - c) was based largely on
  - **d**) was based largely out
  - e) was based largely by
- **9.** Medical specialists must have good knowledge .... mistakes in the process of diagnosing and treatment.
  - a) in order to avoid
  - **b**) in order avoid
  - c) in order to be avoided
  - **d**) in order to be avoiding
  - e) in order avoids
- **10.** A disease characterized by tumours due to the excessive division of cells is called as ....
  - a) nutritional
  - **b**) contagious
  - c) terminal
  - d) neoplastic
  - e) allergic

## DISEASES OF THE UPPER AND LOWER RESPIRATORY TRACTS

#### DISEASES OF THE UPPER RESPIRATORY TRACT

#### **Exercise 1. Learn the new words:**

apparent, adj	[ə'pærənt]	видимий
be confined to, <i>v</i>	[ kən'faind]	обмежуватися
crypt, n	[kript]	ямка
excessive, adj	[ik´sesiv]	надмірне
hoarseness, n	[ˈhz:snis]	хрипіння
latter, adj	[lætə]	останній (з двох)
peel, v (away)	[pi:1]	сходити
steam, <i>n</i>	[sti:m]	пар
swallowing, n	[ sw⊐ləuiη]	ковтання
tickling,n	[tiklinn]	лоскотання

#### Exercise 2. a) Read the word combinations and translate them:

**Membrane:** thin membrane, mucous membrane, cellular membrane, permeable membrane

**Treatment:** long-term treatment, in-patient treatment, surgical treatment, hormone treatment, ineffective treatment, adequate treatment

**Fever:** slight fever, persistent fever, fever subsided, to cause fever, to suffer from fever

**Inflammation:** joint inflammation, acute inflammation, chronic inflammation, to reduce inflammation, signs of inflammation

Sign: apparent sign, visible sign, early sign, external sign, unmistakable sign

### b) Make up short sentences using the above given word combinations:

# Exercise 3. Form nouns with a meaning of "процес, дія або результат дії" with the help of the suffix - ing.Translate them:

Model: water (поливати)—watering (поливання)

Find, act, smoke, walk, train, warm, cool, feel, understand, learn, swell, function, swallow, sweat, think, sneeze

## Exercise 4. Give the Ukrainian equivalents of the following word combinations:

Pain on swallowing, edematous and hyperemic tonsils, purulent exudate, nonconfluent membrane, symptomatic therapy, adequate treatment, severely inflamed mucous membrane, cervical adenopathy, frequent cause, excessive use, irritating substances, prominent symptom, sensation of tickling, severity of inflammation, apparent dyspnea, laryngeal edema, marked erythema, voice rest, to relieve discomfort

## Exercise 5. Read and translate the text: DISEASES OF THE UPPER RESPIRATORY TRACT

Tonsillitis is an acute inflammation of the palatine tonsils, usually due to streptococcal or, less commonly, viral infection. Tonsillitis is characterized by sore throat and pain, most marked on swallowing and often referred to the ears. High fever, malaise, headache, and vomiting are common.

As a rule the tonsils are edematous and hyperemic. There may be a purulent exudate from the crypts and a white, thin membrane over the tonsils that is peeled away without bleeding.

In viral tonsillitis, symptomatic therapy is as for pharyngitis. Tonsillectomy should be considered if acute tonsillitis repeatedly develops after adequate treatment, or if chronic tonsillitis and sore throat persist or are relieved only briefly by antibiotic therapy.

Pharyngitis is an acute inflammation of the pharynx. Usually viral in origin, it may also be due to a Group A or other bacteria. It is characterized by sore throat and pain on swallowing. Differentiating viral from bacterial pharyngitis on the basis of physical examination alone is difficult. In both, the pharyngeal mucous membrane may be mildly red or severely inflamed and may be covered with a membrane and a purulent exudate. Fever, cervical adenopathy, and leukocytosis are present in both viral and streptococcal pharyngitis but may be more marked in the latter.

Treatment is symptomatic and includes a diet, scald foot baths, warm compresses on the anterior part of the neck, milk with honey, steam inhalations and gargling. Antibiotic therapy is usually administered in severe forms of pharyngitis.

Laryngitis is an inflammation of the larynx. The most frequent cause of acute laryngitis is a viral URI. Laryngitis may also occur in the course of bronchitis, pneumonia, influenza, whooping cough, measles, and diphtheria. Excessive use of the voice, allergic reactions, and inhalation of irritating substances such as cigarette smoke can cause acute or chronic laryngitis.

Unnatural change of voice is usually the most prominent symptom. Hoarseness and even aphonia, together with a sensation of tickling, and a constant wish to clear the throat, may occur. Symptoms vary with the severity of the inflammation. Fever, malaise, dysphagia, and throat pain may occur in the more severe infections; dyspnea may be apparent if laryngeal edema is present. Indirect laryngoscopy discloses a mild to marked erythema of the mucous membrane that may also be edematous.

There is no specific treatment for viral laryngitis. Voice rest and steam inhalations give symptomatic relief and promote resolution of acute laryngitis.

#### **Exercise 6. Answer the questions:**

- 1. What is tonsillitis?
- 2. What are the symptoms of tonsillitis?
- 3. What kind of pharyngitis do you know?
- 4. What are the most frequent causes of laryngitis?
- 5. What are the symptoms of laryngitis?
- 6. What are the symptoms of pharyngitis?

7. What does the treatment of pharyngitis include?

Exercise 7. I. Memorize that-itis [aitis] means inflammation of an organ, tissue, etc. Give the terms using this term-element:

- 1. Inflammation of the liver -....
- 2. Inflammation of the larynx and vocal folds ....
- 3. Inflammation of the stomach -....
- 4. Inflammation of the bronchi ....
- 5. Inflammation of the middle ear ...
- 6. Inflammation of the nerve ...
- 7. Inflammation of the peritoneum ...

#### II. Explain the term meaning "excision". Translate it:

Model: tonsillectomy is excision of the tonsills

Gastrectomy, pancreatectomy, nephrectomy, splenectomy, laryngectomy, hysterectomy, adenectomy, sclerectomy

## Exercise 8. Read the definition and fill in the blanks with the words given in brackets:

(Pharyngoplasty, pharyngomycosis, pharyngotomy, pharyngoscope, pharyngolaryngitis, laryngopathy, laryngograph, laryngology, tracheostomy, tracheorrhagia, tracheitis)

1. Inflammation of the trachea	
2. Making an opening in the anterior	
part of the trachea for tube introduction	
in order to facilitate breathing	
3. Inflammation of both throat and	
voice box	
4. Invasion of the mucous membrane of	
the throat by fungi	
5. An instrument used for inspection of	
the throat mucous membrane	
6. A surgical procedure of making an	
incision into the throat to remove a	
tumor or anything obstructing the	
passage	
7. Systematized knowledge of the	
action and function of the voice box	
8. An instrument for making a tracing	
of movements of the vocal folds	
9. Trachea bleeding	
10. Any larynx pathology	
11 .Plastic surgery of the throat	

# Exercise 9. Find the corresponding English equivalents; memorize the meanings of these word combinations:

Біль при ковтанні; набряклі мигдалини; гнійний экссудат; симптоматична терапія; парова інгаляція; часта причина; спричиняючи подразнення; суворость запалення; набряк глотки; полегшувати дискомфорт; помітна ерітема слизової оболонки; парити ноги; відчуття лоскотання; надмірне використання голосу

**Exercise 10. Match the terms with their explanation:** 

	Exercise 100 Matter the terms with their explanation.				
1. aphonia	1. aphonia a) liquid containing proteins and white			and white	
_			s escaping th	rough the v	walls of the
		intac	et blood ve	essels as a	result of
		infla	inflammation		
2.erythema	ı	b) a	b) an acute highly contagious infection		
		gene	generally affecting the throat		
3.exudate c) laboured or difficult breathing			ing		
4.diphtheria			d) flushing of the skin due to dilatation of		
			olood capillar	ies in the der	mis
5. dysphagia			bsence or los	s of the voic	ce caused by
			ase of the lary	ynx or mouth	
6. dyspnea			condition in	which the	action of
			llowing in dif	ficult to perfo	orm
1	2	3	4	5	6

Exercise 11. Match the words in italics with their synonyms:

1. Bleeding	a. leading	
2. Edematous	b. pertussis	
3. Examination	c. application	
4. Fever	d. breathlessness	
5. Whooping cough	e. hemorrhage	
6. Prominent	f. inspection	
7. Use	g. temperature	
8. Dyspnea	h. swollen	

#### Exercise 12. Change the sentences into the Passive Voice according to the model:

Model: I stick a label.

The label is stuck by me.

- 1. The nurse sponges the patient's skin.
- 2. A poisonous remedy causes death.
- 3. The doctor checked up my kidneys
- 4. The child takes cod liver oil.
- 5. The surgeon rinses his hands.
- 6. The doctor administers healing ointments.
- 7. The patient takes sedatives.

#### **Exercise 13. Express the following sentences in the Passive Voice:**

- 1. The nurse has put a new outer bandage on the patient's wound.
- 2. The doctor had determined dull heart sounds by percussion before the electrocardiogram was taken.
  - 3. The surgeon on duty has arrested a profuse abdominal bleeding.
- 4. The nurses had laid the patient down on a stretcher when the doctor came into the ward.
  - 5. The surgeon has just performed the operation for appendicitis.
  - 6. The surgeon has taken out the stitches today.
  - 7. The nurse has removed the dressing carefully.

## Exercise 14. Translate into Ukrainian. Pay attention to the translation of the Passive Voice:

- 1. Tonsillitis is characterized by sore throat and pain, most marked on swallowing.
- 2. Tonsillectomy should be considered if acute tonsillitis repeatedly develops after adequate treatment.
  - 3. Chronic tonsillitis may be relieved only briefly by antibiotic therapy.
  - 4. Acute pharyngitis is frequently accompanied by acute tonsillitis.
  - 5. Mucous membrane is covered with mucopurulent secretion.
- 6. The bacteria may be inhaled into the respiratory passages during contact with ill persons.
- 7. The pharyngeal mucous membrane may be mildly red or severely inflamed.

#### Exercise 15. Put questions to the underlined words:

- 1. Catarrhal condition of the throat decreases the patient's work capacity.
- 2. Bad teeth and chronic inflammation of the tonsils should receive <u>timely</u> treatment.
  - 3. Pain is most marked <u>on swallowing</u>.
  - 4. Dyspnea may be apparent <u>if laryngeal edema is present</u>.
  - 5. Chronic tonsillitis is relieved <u>only briefly</u> by antibiotic therapy.
  - 6. <u>Symptoms</u> vary with the severity of the inflammation.
- 7. Indirect laryngoscopy discloses <u>marked erythema of the mucous membrane</u>.

# Exercise 16. Open the brackets and put the verbs in the correct tense and voice. Translate the sentences:

- 1. Tonsillitis (to characterize) by sore throat and pain, often radiated to the ears.
- 2. If chronic tonsillitis and sore throat persist, the patient (to perform) tonsillectomy.
  - 3. Pharyngitis (to characterize) by sore throat and pain on swallowing.
  - 4. The most frequent cause of acute laryngitis (to be) a viral URI.

- 5. Symptoms (to vary) with the severity of the inflammation.
- 6. In tonsillitis a membrane (to peel away) without bleeding.
- 7. Indirect laryngoscopy (to disclose) a mild to marked erythema of the mucous membrane.

# Exercise 17. Explain the following terms (tonsillitis, pharyngitis, laryngitis) using the following plan:

- 1. It is inflammatory disease of ...
- 2. It is a disease of the upper respiratory tract.
- 3. It is manifested by the following symptoms ...
- 4. It can be treated by .....
- 5. If untreated it may result in ....

#### DISEASES OF THE LOWER RESPIRATORY TRACT

#### **Exercise 1. Learn the new words:**

Excreise 1: Learn the new words.			
abundant, <i>adj</i>	$[a'b\Lambda nd(a)nt]$	рясний	
airway, n	['ɛəweiz]	дихальні шляхи	
concomitant, adj	[kən´k⊐mit(ə)nt	супровідний	
coryza, n	[kəˈraizə]	нежить	
debilitated, adj	[di´biliteitid]	ослаблений	
presumptive, adj	[pri'z\Amptiv]	можливий	
rusty, adj	[ˈrʌsti]	кольор іржі	
specimen, n	['spesimin]	зразок	
viscid, adj	['visid]	в'язкий	
URI = upper respiratory		Інфекція верхніх дихальних	
infection		щляхів	

#### Exercise 2. a) Read the word combinations and translate them:

**Infection**: viral infection, fungal infection, primary infection, recurrent infection, rare infection, bacterial infection

**Sputum**: mucopurulent sputum, thick sputum, rusty sputum, blood streaked sputum

**Symptom**: common symptom, unpleasant symptom, visible symptom, acute symptom, mental symptom

**Disease**: rare disease, curable disease, congenital disease, contagious disease, treatable disease

Cough: mild cough, persistent cough, chronic cough, dry cough, barking cough b) Make up short sentences using the above given word combinations:

## Exercise 3. Give the Ukrainian equivalents of the following word combinations:

Acute, self-limited inflammation; complete healing; debilitated patients; critical complication; a common cold; secondary bacterial infection; slight fever; back and muscular pain; onset of bronchitis; small amounts of viscid sputum; abundant and

mucoid sputum; a severe uncomplicated case; persistent fever; airways obstruction; prolonged symptoms; oral fluids; to relieve malaise; concomitant chronic pulmonary disease; purulent sputum; the most common causes; persistent chills; additional findings; blood streaked or rusty sputum; lethal complications; poorly aerated lungs, appropriate specimen.

## Exercise 4. Read and translate the text: DISEASES OF THE LOWER RESPIRATORY TRACT

Acute bronchitis is an inflammation of the large bronchi (medium-size airways) in the lungs that is usually caused by viruses or bacteria , generally self-limited and with complete healing and return of function in several days or weeks. Though commonly mild, bronchitis may be serious in debilitated patients and those with chronic lung or heart disease. Pneumonia is a critical complication.

Acute infectious bronchitis, most prevalent in winter, is often a part of an acute URI. It may develop after a common cold or other viral infection of the nasopharynx, throat, or tracheobronchial tree, often with secondary bacterial infection.

Acute infectious bronchitis is often preceded by symptoms of an URI: coryza, malaise, chilliness, slight fever, back and muscle pain, and sore throat. Onset of cough usually signals onset of bronchitis. The cough is initially dry and nonproductive, but small amounts of viscid sputum are raised after a few hours or days; it may later become more abundant and mucoid or mucopurulent. In a severe uncomplicated cases, fever to 38.3 or 38.8 °C (101 or 102° F) may be present for up to 3 to 5 days, following which acute symptoms subside though cough may continue for several weeks. Persistent fever suggests complicating pneumonia. Dyspnea may be noted secondary to the airways obstruction.

Diagnosis is usually based on the symptoms and signs, but a chest x-ray is indicated if symptoms are serious or prolonged.

Rest is indicated until fever subsides. Oral fluids (up to 3 or 4 L/day) are advised during the febrile course. An antipyretic analgesic (e.g, for adults aspirin 600 mg or acetaminophen 500 mg 4 to 6 h; for children acetaminophen 10 to 15 mg/kg 4 to 6 h) relieves malaise and reduces fever.

Antibiotics are indicated when there is concomitant chronic obstructive pulmonary disease, when purulent sputum is present, or when high fever persists and the patient is more than mildly ill.

Pneumonia is an acute infection of lung parenchyma including alveolar spaces and interstitial tissue. The most common causes in adults are bacteria.

Pneumococcal pneumonia is often preceded by an URI. The onset is often sudden with a single shaking chill; persistent chills suggest an alternative diagnosis. This is ordinarily followed by fever, pain with breathing on the involved side (pleurisy), cough, dyspnea, and sputum production. The temperature rises rapidly to 38 to 40.5° C (100.4 to 105° F); the pulse is usually 100 to 140/min; and respirations accelerate to 20 to 45/min. Additional common findings are nausea, vomiting, malaise, and myalgias. The cough may be dry initially, but usually becomes productive with purulent, blood-streaked or rusty sputum.

Serious, potentially lethal complications include overwhelming sepsis, sometimes associated with the adult respiratory distress syndrome and/or septic shock.

Laboratory studies usually show leukocytosis with a shift to the left. There may be blood gas abnormalities due to perfusion of poorly aerated lung resulting in hypoxemia and respiratory alkalosis.

Pneumococcal pneumonia should be suspected in anyone with an acute febrile illness associated with chest pain, dyspnea, and cough. A presumptive diagnosis can be based on the history, changes on chest x-ray, culture and Gram stains of appropriate specimens. Treatment depends on the kind of pneumonia.

#### **Exercise 5. Answer the questions:**

- 1. What is acute bronchitis often preceded by?
- 2. What is bronchitis?
- 3. What are the symptoms of bronchitis?
- 4. What is the most common cause of pneumonia?
- 5. What is pneumonia?
- 6. What are the symptoms of pneumonia?
- 7. What are the complications of pneumonia?

# Exercise 6. Form nouns with a meaning "процес, дія або результат дії" using the suffix- ing. Translate them.

Model: water (поливати) →watering (поливання)

Find, act, smoke, walk, train, warm, cool, feel, understand, learn, swell, function, swallow, sweat, think, sneeze

# Exercise 7. Form adjectives with a meaning "відносин" using the suffix-al. Translate them.

Model: face (обличчя)→facial (лицевий)

Abdomen, accident, nature, function, norm, hormone, centre, experiment, biology, artery, bronchus, intestine,

### Exercise 8. Memorize the meaning of the following term-elements.

Bronch(o)-[br¬ηk¬u] - combining form of Greek origin denoting bronchus
Pneum(o)-[nju:m¬u] - combining form of Greek origin denoting breathing, lung, air
Pulm(o)-, pulmon(o)-[pΛlm¬(n¬)] - combining form of Greek origin denoting lungs

#### Read the definition and fill in the blanks with the words given in brackets:

(Bronchoedema, bronchoplasty,bronchogenic, bronchoconstriction, pneumoalveolography, pneumobilia, pneumocardial, pneumodynamics, pneumoectomy, pulmonary, pulmonologist, pulmonohepatic)

1. Pertaining to the lungs and heart	
2. X-ray examination of the air sacs of the	
lungs	
3. A specialist in lung diseases	

4. Narrowing of the bronchus lumen	
5. Pertaining to the lungs	
6. Swelling of the mucosa of the	
bronchial tube	
7. Presence of air or other gases in the	
bile system	
8. Surgical alteration of the configuration	
of a bronchus	
9. Changes in breathing process	
10. Originating from the bronchi	
11.Pertaining to the lungs and liver	
12.Resection of lung tissue	_

Exercise 9. Match the terms with their explanation.

 Exercise 9. Match the terms with their explanation.									
1. hypox	xemia		a. Inflam	mation of the	lungs caused by				
			bacteria, in	which the alved	oli become filled				
			with the in	flammatory cel	ls and the lung				
			becomes sol	lid					
2. pneui	2. pneumonia b. A rise in body temperatu								
			normal, i.e. above an oral temperature						
			36.6°C.		_				
3. coryz	a		c. Reduct	ion of the oxyg	en concentration				
			in the arterial blood, recognized clinically						
			by the presence of central and peripheral						
			cyanosis.						
4. leuco	cytosis		d. A catarrhal inflammation of the						
	•		mucous membrane in the nose due to either						
			a cold or hay fever						
5. fever			e. an increase in the number of white						
			blood cells i	n the blood					
1	2 3 4 5 6								

# Exercise 10. Find the corresponding equivalents; memorize the meanings of these word combinations:

Тривалі симптоми, повне загоювання, обструкція дихальних шляхів, важкий неускладнений випадок, найбільш поширена причина, стійкій озноб, в'язке мокротіння, летальні ускладнення, слизове мокротиння, кров прожилками або іржаве мокротиння, супутнє хронічне легеневе захворювання, початок бронхіту

## Exercise 11. Translate into Ukrainian. Pay attention to the translation of the Passive Voice:

1. Acute infectious bronchitis is often preceded by symptoms of a URI.

- 2. Dyspnea may be noted secondary to the airways obstruction.
- 3. Oral fluids are advised during the febrile course.
- 4. Antibiotics are indicated when there is concomitant chronic obstructive pulmonary disease.
  - 5. A chest X-ray is indicated if symptoms are serious or prolonged.
- 6. Pneumococcal pneumonia should be suspected in anyone with an acute febrile illness.
- 7. A presumptive diagnosis can be based on the history, changes on chest X-ray, culture and gram stains of appropriate specimens.

## Exercise 12. Fill in the correct form of the verb in the Active or Passive Voice:

- 1. Considerable skill, patience and tact (to require) to examine a child.
- 2. Yesterday he (to awake) with a severe headache.
- 3 The doctor thought that the patient (to recover) from his illness but on the contrary he (to get) worse.
  - 4. I (to feel) wretched for I (to catch) a severe cold the day before
- 5. Infectious diseases (to transmit) by direct contact or through the respiratory route.
- 6. The medical students (to practise) in the clinic at patient's bed-side in order to learn to recognize and treat various diseases.
  - 7. The man (to die) unless he (to operate on) without delay.

#### **Exercise 13. Put questions to the underlined words:**

- 1. Acute bronchitis may develop after a common cold.
- 2. Diagnosis is usually based on the symptoms and signs.
- 3. Oral fluids are advised during the febrile course.
- 4. Antibiotics are indicated when there is concomitant chronic obstructive pulmonary disease.
  - 5. Persistent chills suggest an alternative diagnosis.
  - 6. Lab studies usually show <u>leucocytosis with a shift to the left</u>.
  - 7. A diagnosis can be based on the history, changes on the chest X-ray.

# Exercise 14. Fill in the missing prepositions. Some of prepositions may be used more than once. Translate the sentences:

in	by (2)	on	during(2)	to	for	

- 1. Oral fluids are advised ... the febrile course.
- 2. Pneumonia affects approximately 450 million people globally per year, and results ... about 4 million deaths
  - 3. If the pneumonia is severe, the affected person is admitted ... hospital.
- 4. Acute bronchitis is characterized... the development of a cough or small sensation in the back of the throat, with or without the production of sputum.
- 5. Cigarette smoking is the most common cause of chronic bronchitis, followed ... exposure to air pollutants.

- 6. Treatment of pneumonia depends ... the underlying cause.
- 7. Acute bronchitis often develops ... an upper respiratory infection such as the common cold or influenza.

# Exercise 15. Open the brackets and put the verbs in the correct tense and voice. Translate the sentences:

- 1. Rest (to indicate) until fever subsides.
- 2. The onset of the disease (to be) often sudden with a single shaking chill.
- 3. Treatment (to depend) on the kind of pneumonia.
- 4. Dyspnea (to note) secondary to the airways obstruction.
- 5. Onset of cough (to signal) onset of bronchitis.
- 6. The cough usually (to become) productive with purulent, blood-streaked sputum.

## Exercise 16. Explain the following terms. Use the previously given scheme: Bronchitis, Pneumonia

### PULMONARY TUBERCULOSIS

**Exercise 1. Topic vocabulary:** 

Excreise 1: Topic voi	J	
BCG vaccine, <i>n</i>	[bəˈsiləs ˈkælmət gəˈrɛn]	вакцина БЦЖ
(Bacillus Calmette-		(бацилла Кальметта-
Guerin)		Герена)
blood streaked, adj	['blʌd 'stri:kt]	з прожилками крові
crackles, n	[ˈkræklz]	вологі хрипи
detection, <i>n</i>	[di'tekʃn]	виявлення
discharge, n	[dis'ʧa:ʤ]	виділення
fluctuate, v	['flaktfveit]	змінюватися, варіюватися
heal, v	[hi:l]	зцілюватися
identify, v	[ai'dentifai]	встановлювати, визначати,
		розпізнавати
immunocompromised, adj	[i,mjv:nə'kɒmprəmaizd]	з послабленим імунітетом
lesion, n	['li:ʒn]	ураження, пошкодження
Mantoux test, n	['mæntv 'test]	реакція Манту
mediastinum, <i>n</i>	[,mi:diəs'tainəm]	середостіння
meninges, n	[məˈniːnʤiz]	оболонки головного мозку
nodular, <i>adj</i>	[ˈnɒdjʊlə]	вузликовий, нодулярний
phthisiatrician, n	[ˌfƏi:ziə'triʃn]	фтизіатр
resurgence, n	[ri'sɜːʤəns]	рецидив
smoulder, v	['sməvldə]	тліти
sputum, <i>n</i>	['spju:təm]	мокротиння
superadd, v	[ˌsju:pər'æd]	додаватися
tubercle, n	['tju:b3:kl]	туберкул, вузлик
vulnerable, <i>adj</i>	['vʌlnərəbl]	уразливий, незахищений,

Exercise 2. a) Memorize the plural forms of nouns of Latin and Greek origin:

Latin						
singular	plural					
-us [əs]	-i [ai]					
bacill <b>us</b>	bacill <b>i</b>					
-a [ə]	-ae [i:]					
vertebr <b>a</b>	vertebr <b>ae</b>					
-um [əm]	-a [ə]					
bacteri <b>um</b>	bacteri <b>a</b>					
Greek						
-sis [sis]	-ses [siz]					
synthesis	synthe <b>ses</b>					

b) Choose the correct plural form:

	1				
Noun	Plural				
diagnosis	diagnoses	diagnosises			

stimulus	stimula	stimuli
datum	datums	data
formula	formule	formulae
nucleus	nuclei	nucleum
analysis	analys	analyses
spirillum	spirilla	spirillae

# Exercise 3. Form nouns with the help of the suffix -(a)(t)ion. Translate the pair of words into Ukrainian:

**Model:** to infect – infection інфікувати – інфекція

To characterize, to form, to inhale, to fluctuate, to detect, to combine, to populate, to vaccinate, to examine, to auscultate, to palpate, to complete, to migrate.

## Exercise 4. Read and translate the following word-combinations into Ukrainian:

The causative agent of the disease, the formation of nodular lesions, to set up a primary tubercle, natural immune defenses, to smoulder for months or years, to fluctuate with the patient's resistance, to transmit by coughing and sneezing, blood streaked sputum discharge, the detection by X-ray screening, vaccination with BCG vaccine, tuberculous crackles in the lungs, a yearly Mantoux test, a resurgence of pulmonary tuberculosis, in immunocompromised patients, to seek help from phthisiatrician.

## Exercise 5. Read and translate the text into Ukrainian: PULMONARY TUBERCULOSIS

Pulmonary tuberculosis is an infectious bacterial disease. The causative agent of the disease is Mycobacterium tuberculosis that was first identified by R. Koch in 1882. It is characterized by the formation of nodular lesions (tubercles) in the mediastinum.

In pulmonary tuberculosis the bacillus can be inhaled into the lungs where it sets up a primary tubercle and spreads to the nearest lymph nodes. Natural immune defenses may heal it at this stage. Alternatively the disease may smoulder for months or years and fluctuate with the patient's resistance. Many people become infected but show no symptoms. Others develop a chronic infection and can transmit the bacillus by coughing and sneezing.

In the early stages of pulmonary tuberculosis the patient usually complains of general malaise, fatigue, loss of appetite and as a result loss of body weight, caused by tuberculous intoxication. The subfebrile fever persists for a long time. Then cough superadds.

Symptoms of the active form of pulmonary tuberculosis include high fever that ranges from 38° to 39°C, profuse night sweats, and cough with blood streaked sputum discharge.

Pulmonary tuberculosis is treated by various combinations of antibiotics. The treatment may last up to 6-8 months. Preventive measures must include the detection

of cases by X-ray screening of vulnerable populations and vaccination with BCG vaccine of those with no immunity to the disease. Regular physical examinations are necessary as well: auscultation reveals characteristic tuberculous crackles in the lungs; palpation identifies the swollen lymph nodes in the neck or other areas. Another method of detecting pulmonary tuberculosis is a yearly Mantoux test.

Recently, there has been a resurgence of pulmonary tuberculosis in immunocompromised patients (i.e. who have HIV or AIDS). The number of patients with the disease has also increased due to patients not completing drug courses.

In some cases the bacilli spread from the lungs to the blood-stream, setting up millions of tiny tubercles throughout the body (miliary tuberculosis), or migrate to the meninges to cause tuberculous meningitis. Entering by mouth bacilli may spread to abdominal lymph nodes, leading to peritonitis, and sometimes spread to other organs, joints, and bones.

Though pulmonary tuberculosis is curable, it is a terminal disease if not treated in time. So, if a person develops any signs slightly resembling pulmonary tuberculosis, he should immediately seek help from phthisiatrician.

#### **Exercise 6. Answer the questions:**

- 1. What kind of disease is pulmonary tuberculosis?
- 2. What is pulmonary tuberculosis caused by?
- 3. What kind of formations is the disease characterized by?
- 4. How can a person become infected with pulmonary tuberculosis?
- 5. What are the symptoms of pulmonary tuberculosis?
- 6. What does the treatment of pulmonary tuberculosis consist of?
- 7. How can pulmonary tuberculosis be prevented?
- 8. What complications may pulmonary tuberculosis lead to?

Exercise 7. Match the symptoms of pulmonary TB given in English with their Ukrainian equivalents:

1.	subfebrile or high fever	a	втрата ваги
2.	general malaise and fatigue	b	вологі хрипи у легенях
3.	cough with sputum discharge	c	вузликові ураження
4.	crackles in the lungs	d	субфібрильна чи висока лихоманка
5.	profuse night sweats	e	кашель з виділенням мокротиння
6.	nodular lesions	f	набряклі лімфатичні вузли
7.	loss of body weight	g	надмірна пітливість уночі
8.	swollen lymph nodes	h	загальне нездужання та втома

1	2	3	4	5	6	7	8

#### Exercise 8. Match the kinds of diagnostic tools with their explanations:

_				
	1.	X-ray screening	a)	a method of skin testing aimed at detecting
				tuberculosis, named after the French physician

2.	vaccination	b)	examination by touch for the purpose of diagnosing disease
	3.5		6 6
3.	Mantoux test	c)	the procedure during which a patient is
			thoroughly examined from head to toes
4.	physical	d)	the laboratory analysis of specimen taken from
	examination		the patient for culturing the Mycobacterium
			tuberculosis organisms
5.	auscultation	e)	laboratory examination of physical / chemical
3.	auscultation	(6)	
			properties and the number of erythrocytes,
			leukocytes, etc.
6.	palpation	f)	process of giving injections of a killed microbe
			in order to stimulate the immune system against it,
			thus, preventing disease
7.	blood analysis	g)	the act of listening, either directly or through a
	_		stethoscope or other instrument, to sounds within
			the body as a method of diagnosis
	, 1 •	1 \	
8.	sputum analysis	h)	a radiographic image of the body internal organs
			and structures, usually used for diagnostic
			purposes
		I.	1
	1 2 3	2	1 5 6 7 9

Exercise 9. Find the synonyms in the text to the words and word-combinations given below:

5	
therapy –	moist rales –
inoculation –	excessive perspiration –
check-up –	productive cough –
tubercles –	cause of disease –

# Exercise 10. Re-write the sentences translating the words and word-combinations *in italics*:

- 1. Регулярні медичні огляди must be carried out twice a year.
- 2. Кашель з виділення мокротиння is called productive cough.
- 3. During the check-up the physician heard вологі хрипи in the patient's lungs.
- 4. Pulmonary tuberculosis is a *смертельне захворювання*, if not treated in time.
- 5. It is difficult to make a correct diagnosis *на ранніх стадіях* of some diseases.
- 6. People with *туберкульозом легенів* suffer from *втрати ваги* caused by tuberculous intoxication.
- 7. *Bmpama anemumy* is a very important symptom, which a physician must always pay particular attention to.
  - 8. There are a lot of бактеріальних інфекційних хвороб such as scarlet

fever, whooping cough, tetanus, diphtheria, etc.

**Exercise 11. Insert the necessary preposition:** 

			at;	by;	due to;	in (2);	to $(2)$ ;	of	
	_	-		•			1 0		 . 4

- 1. In pulmonary tuberculosis there are a lot of nodular lesions ... the mediastinum.
- 2. Yesterday the patient complained ... general malaise, slight fatigue and headaches.
  - 3. Profuse sweats ... night serve the grave sign of pulmonary tuberculosis.
- 4. Swollen lymph nodes ... the neck indicated the presence of infection in the body.
- 5. People having no immunity ... diseases often suffer from various infections.
- 6. TB spreads throughout the world ... patients not completing drug courses.
  - 7. People with pulmonary TB can transmit it ... coughing and sneezing.
- 8. The bacilli of pulmonary TB can migrate ... the meninges and cause tuberculous meningitis.

## MODAL VERBS AND THEIR EQUIVALENTS (REVISION)

	1) can/could (logica	work here.		
He	2) may/might			
	permission)			
	3) <b>must</b> (certainty w			
	4) <b>should</b> (advice)			

#### Переклад:

1. Він може працювати тут. (логічна посилка)

2. На мій погляд, він працює тут. (я не певен, за моїм розсудом)

3. *Він працює тут*. (упевненість)

4. Він має працювати тут. (наказ) 5. Йому слід попрацювати тут. (порада)

### Pay attention!

- + He *can* easily translate this text.
- ? Can he easily translate this text? How can he translate this text?
- He can't (can not) easily translate this text.

### Exercise 12. Insert the appropriate modal verb:

- 1. She ... not go to the library because she has no time. (logical conclusion)
- 2. "You ... go for a walk every day," the doctor said. (obligation)
- 3. He ... go to the movies in the evening. (hypothetic possibility)
- 4. You ... work more at your pronunciation. (advice)
- 5. He ... invite you to the theatre. (hypothetic possibility)

- 6. The child ... not walk though he is 2 years old. (capability)
- 7. ... I take your pencil? (permission)
- 8. You ... follow his instructions. (certainty without fail)

The equivalents of modal verbs:

	The equivalence of modul verses						
can	to be able to	бути	I <b>am able to</b> treat people.				
		здатним	Я можу (здатен) лікувати людей.				
may	to be allowed to	дозволяють	I am allowed to go home.				
			Мені дозволяють піти додому.				
must	to have to	I have to prepare for the exam to pass it successfully.  Мені доводиться готуватися до екзамену, щоб скласти його на відмінно.					
	to be to	мають	I <b>am to prepare</b> for the exam beforehand. Я маю підготуватися до екзамену заздалегідь.				

#### Pay attention!

I am able to operate this patient.	Я можу прооперувати цього пацієнта.			
I was able to operate this patient.	Я міг прооперувати цього пацієнта.			
I will be able to operate this	Я зможу прооперувати цього пацієнта.			
patient.				

## Exercise 13. Translate the sentences into English using the equivalents of modal verbs:

- 1. Вона зможе робити уколи через кілька занять.
- 2. Цьому хворому дозволили ходити після операції.
- 3. Мені доводиться йти на роботу пішки.
- 4. Вони повинні прооперувати його наступного тижня.
- 5. Зараз ми можемо провести цей експеримент.
- 6. Хворим не дозволяється приймати ліки самим.
- 7. Йому доведеться лікуватися в стаціонарі.
- 8. Студентам дозволять провести огляд пацієнта самостійно.

#### **Exercise 14. Put questions to the underlined words:**

- 1. <u>Mycobacterium tuberculosis</u> causes pulmonary tuberculosis.
- 2. This disease may affect bones, joints, lymphatic glands, kidneys.
- 3. Coughing can become worse at night and in the morning.
- 4. A considerable elevation of temperature is observed <u>in pneumonic forms</u>.
- 5. <u>Loss of body weight</u> may be the typical sign of pulmonary tuberculosis.
- 6. <u>Natural immune defenses</u> can sometimes heal the disease in the early stages.
  - 7. There is a resurgence of pulmonary TB among immunocompromised

patients.

8. Millions of tiny tubercles are carried throughout the body by the blood stream.

## Exercise 15. Put the verb in brackets into the correct tense form. Translate them into Ukrainian:

- 1. The causative agent of tuberculosis (to discover) by Koch in 1882.
- 2. The microscopic examination (to reveal) pus cells in sputum yesterday.
- 3. The patient states that the fever (to persist) at a level of 38°C for several months.
- 4. Profuse night sweats (to serve) the evidence of a severe form of tuberculosis.
  - 5. Loss of body weight (can, to cause) by tuberculous intoxication.
  - 6. Cough (to superadd) after the disease has been in progress for some time.
- 7. Mycobacterium tuberculosis (to produce) characteristic tuberculous changes in the mediastinum.
- 8. In the early stage of pulmonary TB the patient (may, to complain) of a general malaise, fatigue, loss of appetite and bodyweight.

#### Exercise 16. Fill in the table and describe pulmonary tuberculosis:

1.	Type of disease.		
2.	Set of symptoms.		
3.	Data of examinations.		
4.	Treatment.		
5.	Complications.		

# Exercise 17. Translate the sentences into English using modal verbs or their equivalences:

- 1. Тобі слід звернутися до лікаря, щоб попередити це захворювання.
- 2. Імунна система організму може зцілювати туберкульоз на дуже ранній стадії.
- 3. За допомогою аускультації лікар зміг виявити незрозумілі хрипи в легенях хворого.
- 4. Туберкульоз легень може поширюватися по всьому організму та викликати смертельні ускладнення.
- 5. Туберкульоз може розвиватися дуже швидко у людей з послабленим імунітетом.
- 6. Профілактичні заходи проти туберкульозу обов'язково мають включати рентген та реакцію Манту.
- 7. Якщо у пацієнта кашель триває протягом довгого часу, то, в першу чергу, необхідно підозрювати туберкульоз.
- 8. Щоб уникнути ускладнень, ти повинен закінчити повний курс лікування.

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення:

- 1. бактеріальна хвороба
- 2. збудник захворювання
- 3. передавати через чихання
- 4. скаржитися на втому
- 5. кашель з виділення мокротиння
- 6. виявити вологі хрипи у легенях
- 7. у хворих з послабленим імунітетом
- 8. поширюватися через кровоток
- 9. призводити до менінгіту
- 10. звернутися за допомогою до фтизіатра

#### II. Дайте розгорнуту відповідь на наступні питання:

- 1. What kind of disease is pulmonary tuberculosis?
- 2. What is pulmonary tuberculosis caused by?
- 3. How can a person become infected with pulmonary tuberculosis?
- 4. What are the symptoms of pulmonary tuberculosis?
- 5. What does the treatment of pulmonary tuberculosis consist of?

#### **III. Розкрийте поняття терміну:** туберкульоз легень

### **ATHEROSCLEROSIS**

### **Exercise 1. Topical vocabulary**:

accumulation, n	[əˌkjuːmjəˈleɪʃən]	накопичення	
atherosclerosis, n	[ˌæθərəʊskləˈrəʊsɪs]	атеросклероз	
cholesterol, n	[kəˈlestərɒl]	холестерин	
cumulative, adj	[ˈkjuːmjʊlətɪv]	сукупний	
enable, adj	[ıˈneɪbəl]	робити можливим	
furring, <i>n</i>	[ˈfɜːrɪŋ]	утворення нальоту	
hardening, <i>n</i>	[ˈhɑːdənɪŋ]	твердіння	
multiple, adj	[ˈmʌltɪpəl]	численний	
overstrain, n	[ˈəʊvəˈstreɪn]	перенапруження	
plaque, n	[pla:k]	бляшка, тромбоцит	
stroke, n	[strəʊk]	інсульт	
thicken, v	[ˈθɪkən]	згущувати(ся)	

**Exercise 3. Remember roots pertaining to the heart and blood vessels:** 

Root	Meaning	Example	Definition
cardi/o-	heart	cardiomyopathy	any disease of the heart muscle
arti/o	atrium	interatrial	between the atria
ventricul/o-	cavity, ventricle	ventriculotomy	surgical incision of the ventricle
valvul/o-, valv/o-	valve	valvuloplasty	plastic repair of a valve
angi/o-	vessel	angiogram	x-ray of a blood vessel
vas/o-, vascul/o-	vessel, duct	vasodilation	widening of a blood vessel
arter-, arter/o-	artery	arteriorrhexis	rupture of an artery
arteriol/o	ateriole	arteriolitis	inflammation of the arterioles
aort/o	aorta	aortostenosis	narrowing of the aorta
ven/o-, ven/i-	vein	venous	pertaining to a vein
phleb/o-	vein	phlebectasia	dilatation of a vein
varic/o-	twisted and	varicosity	varix, varicose vein

			swollen vein					
	1. 7 2. 7 3. 7 4. 7	The word An atriot A valvec The word	Fill in the blanks: d cardiogenic mean omy is an incision tomy is surgical read interventricular matriction means narrows.	is originates originates in the control of the cont	of a etween the			
pr	1. I 2. I 3. I 4. I 5. I	uffix is g Pertainin Pertainin Pertainin Pertainin	g to the heart (-ac) g to the myocardium g to the pericardium g to an atrium (-al) g to a ventricle (-an)	m (-al) m (-al)		ne following definitions. The		
	Exercise 6. Write a word for each of the following definitions:  1. Inflammation of the lining of the heart (endo-) (-itis)  2. Inflammation of the heart muscle (-itis)  3. Inflammation of the fibrous sac around the heart (peri-) (-itis)  4. Study of the heart (-logy)  5. Enlargement of the heart (-megaly)  6. Pertaining to an atrium and a ventricle (-al, -ar)  7. Above a ventricle (supra-)  8. Surgical incision of a valve (-tomy)							
	Ex	ercise 7.	Mach the synony	ms:				
	1.	to thick	xen .	a)	negative			
	2.	to affec	et	b)	to concer	n		
	3.	to refer	to	c)	break			
	4.	multipl	e	d)	weakness	5		
	5.	unfavo	rable	e)	to solidify	y		
	6.	to decre	ease	f)	to gain			
	7.	rupture		g)	to influen	ice		
	8.	to occu	r	h)	to reduce			
	9.	to accu	mulate	i)	numerous	8		
	10.	overstr	ain	j)	to happen	1		

### **Exercise 8. Translate the following word combinations:**

Arteriosclerotic vascular disease, accumulation of fatty materials, hardening or furring of the arteries, formation of multiple plaques within the arteries, remain

asymptomatic for decades, metabolic disturbances, disturbances of cholesterol exchange, external evidence of the disease, preventive measures, follow a certain regimen, sound sleep, enable the nerve cells to rest, exclude mental and physical overstrain, incidence of atherosclerosis, insufficient physical activity, affect unfavourably, sufficient amount of proteins, take in limited doses, dilate peripheral vessels, improve general condition, advanced atherosclerosis.

#### **Exercise 9. Read and translate the text: ATHEROSCLEROSIS**

Cardiovascular diseases (also called heart disease) is a class of diseases that involve the heart, the blood vessels (arteries, capillaries, and veins) or both.

Cardiovascular disease refers to any disease that affects the cardiovascular system, principally cardiac disease, vascular diseases of the brain and kidney, and peripheral arterial disease. The causes of cardiovascular disease are diverse but atherosclerosis and/or hypertension are the most common.

Atherosclerosis (also known as arteriosclerotic vascular disease or ASVD) is a condition in which an artery wall thickens as a result of the accumulation of fatty materials such as cholesterol. It is commonly referred to as a hardening or furring of the arteries. It is caused by the formation of multiple plaques within the arteries. Atherosclerosis is a chronic disease that remains asymptomatic for decades. There is a number of factors which may determine its development.

Atherosclerosis of the blood vessels results from metabolic disturbances and particularly from disturbances of cholesterol exchange. These disturbances begin long before there is any external evidence of the disease. Therefore the doctor must prevent its appearance beginning preventive measures and treatment as early as possible.

Prevention and treatment of atherosclerosis consist mainly of a certain regimen for the patient, which he must strictly follow. The patient must get up, eat, work, and go to bed at exactly the same time every day.

Sound sleep is very important since it enables the nerve cells to rest. The patient with the signs of atherosclerosis must sleep not less than 7-8 hours and walk before going to bed. Mental and physical overstrain must be excluded.

The incidence of atherosclerosis is high in professional groups with insufficient physical activities. So physical exercises must be part of the prescribed regimen for such persons.

Smoking affects unfavourably the walls of the blood vessels and can result in their spasm, that is why patients suffering from atherosclerosis must not smoke.

The diet of the patients with atherosclerosis must contain sufficient amount of proteins, but fats and carbohydrates must be taken in very limited doses.

Vitamins are widely used in the treatment of atherosclerosis because some of them improve the metabolic processes and others dilate the vessels, particularly the peripheral ones.

Other drugs administered in treating atherosclerosis are the so-called lipotropic substances, which prevent fat from accumulating in the organism.

Since the nervous system affects the metabolic processes in the human body the patients with atherosclerosis are prescribed such drugs as bromide and valerian to improve its general condition.

Complications of advanced atherosclerosis are chronic, slowly progressive and cumulative. Most commonly, soft plaque suddenly ruptures, causing the formation of a thrombus that will rapidly slow or stop blood flow. It will lead to death of the tissues fed by the artery in approximately 5 minutes. This catastrophic event is called an infarction. One of the most common recognized scenarios is called coronary thrombosis of a coronary artery, causing myocardial infarction. The same process in an artery to the brain is commonly called stroke.

#### **Exercise 10. Answer the following questions:**

- 1. What is atherosclerosis?
- 2. What is atherosclerosis caused by?
- 3. What does prevention and treatment of atherosclerosis mainly consist of?
- 4. Why is sound sleep important for patients with atherosclerosis?
- 5. Who has a high incidence of atherosclerosis?
- 6. What must the diet of the patients with atherosclerosis contain?
- 7. Why are vitamins widely used in the treatment of atherosclerosis?
- 8. What drugs are administered in treating atherosclerosis?
- 9. What can advanced atherosclerosis lead to?
- 10. What does sudden rupture of soft plaque cause?

#### Exercise 11. Match the terms with their definitions:

- heart

   a) continuing a long time or recurring frequently;
   b) gradual gathering of something;

   artery

   a white crystalline substance, found in animal tissues and various
- foods, that is normally synthesized by the liver and is important as a constituent of cell membranes;
- d) a hollow organ of blood circulation, composed
  - d) a hollow organ of blood circulation, composed mainly of smooth
- 4. furring muscle, located in the chest between the lungs and slightly to the left and consisting of four chambers;
- 5. cholesterol e) a blood vessel that conveys blood from the heart to any part of the body;
- 6. plaque f) the formation of a coating of matter on something, as on the tongue;
- 7. chronic g) the liquid part of blood or lymph, as distinguished from the suspended elements;
- 8. accumulation h) a flat, often raised, patch on the skin or other organ, as on the inner lining of arterial walls in atherosclerosis.

## Exercise 12. Find the equivalents of the following word combinations in the text:

Кількість випадків атеросклерозу; запущений атеросклероз; покращувати загальний стан пацієнта; розширювати периферичні судини; впливати на

метаболічні процеси; призначати ліки; приймати у дуже обмежених дозах; містити достатню кількість білків; несприятливо впливати на стінки кровоносних судин; недостатня фізична активність; міцний сон; давати змогу нервовим клітинам відпочити; неухильно дотримуватися певного режиму; порушення холестеринового обміну; зовнішні прояви хвороби; накопичення жирових матеріалів; формування численних бляшок в артеріях.

#### **Exercise 13. Insert the missing prepositions into the gaps:**

- 1. Patients suffering ... atherosclerosis must not smoke.
- 2. Other drugs administered...treating atherosclerosis are the so-called lipotropic substances.
- 3. Atherosclerosis is commonly referred ... as a hardening or furring of the arteries.
  - 4. Atherosclerosis is caused ... the formation of multiple <u>plaques</u> ... the arteries.
  - 5. Atherosclerosis is a chronic disease that remains asymptomatic ... decades.
  - 6. Sound sleep is very important ... it enables the nerve cells to rest.
- 7. The diet ... the patients with atherosclerosis must contain sufficient amount ... proteins.
- 8. The narrowing or obstruction ... blood flow can occur ... any artery within the body.

#### **Exercise 14. Fill in the correct word:**

- 1. In atherosclerosis the arterial walls become .... (thinned / thickened)
- 2. Atherosclerosis is defined as a chronic ... response of the blood vessels. (purulent / inflammatory)
- 3. Atherosclerosis usually begins in ..., it affects the majority of the arteries. (the elderly / adolescents)
- 4. Atherosclerosis ... from a low-density lipoprotein molecules. (develops / terminates)
  - 5. The cholesterol ... causes the vessel walls to enlarge. (plaque / plague)
  - 6. Atherosclerosis may be ... by angiography. (divided / detected)
- 7. Plaque rupture can ... artery lumen occlusion within seconds to minutes. (lead to / aggravate)
- 8. Some symptoms of atherosclerosis may be ..., but the disease itself can't/ (healed / cured)

### Exercise 15. Fill in the table to describe the following term "Atherosclerosis":

Definition	
Causes	
Symptoms	
Complications	
Treatment	

#### **Exercise 16. Put questions to the underlined words:**

- 1. The same process in an artery to the brain is commonly called <u>stroke</u>.
- 2. It will lead to death of the tissues <u>in approximately 5 minutes</u>.
- 3. Smoking affects <u>unfavourably</u> the walls of the blood vessels.

- 4. Atherosclerosis is caused by the formation of multiple plaques within the arteries.
  - 5. Mental and physical overstrain must be excluded.
  - 6. Atherosclerosis remains asymptomatic for decades.
  - 7. Atherosclerosis of the blood vessels results from metabolic disturbances.
- 8. <u>These disturbances</u> begin long before there is any external evidence of the disease.

### Exercise 17. Open the brackets with the appropriate forms of the verbs:

- 1. The diet of this patient (to contain) sufficient amount of proteins.
- 2. The same process in an artery to the brain (to call) stroke.
- 3. The nervous system (to affect) the metabolic processes in the human body.
- 4. The patient (to sleep) 8 hours last night.
- 5. Lipotropic substances (to administer) in treating atherosclerosis.
- 6. Lipotropic substances (to prevent) fat from accumulating in the organism.
- 7. He (to go) to bed at the same time every day.
- 8. Coronary thrombosis of a coronary artery (to cause) myocardial infarction in this patient.

#### REPORTING COMMANDS AND REQUESTS

To report commands or requests we use a reporting verb (advise, ask, beg, offer, order, tell etc) followed by a to-infinitive or a not to-infinitive.

#### Examples:

Direct Speech	Reported Speech		
She said to me, "Come with me."	She told me to come with her.		
He said to her, "Please, don't tell	He asked her not to tell anyone about it.		
anyone about it!"			

### Exercise 18. Report the doctor's recommendations to the patient with atherosclerosis:

- 38. The doctor said to the patient, "Go to bed at exactly the same time every day."
  - 39. The doctor said to the patient, "Walk before going to bed."
  - 40. The doctor said to the patient, "Do not smoke."
  - 41. The doctor said to the patient, "Follow the prescribed regimen strictly."
  - 42. The doctor said to the patient, "Do not eat a lot of fatty food."
  - 43. The doctor said to the patient, "Avoid mental or physical overstrain."
  - 44. The doctor said to the patient, "Do not drink too much coffee."
  - 45. The doctor said to the patient, "Come for the next check-up in a month"

### **Exercise 19. Translate the sentences into English:**

- 1. Лікар порадив пацієнту дотримуватися певної дієти.
- 2. Лікар наказав санітарам відвезти хворого на рентген.
- 3. Лікар сказав пацієнту не рухатися.
- 4. Лікар попросив медсестру зробити хворому ін'єкцію.
- 5. Він сказав їй не хвилюватися.

- 6. Вона благала лікаря не казати про це її матері.
- 7. Медсестра попросила хворого лягти на живіт.
- 8. Вона сказала нам залишатися тут і чекати на неї.

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення:

- 1. запущений атеросклероз
- 2. покращувати загальний стан пацієнта
- 3. розширювати судини
- 4. впливати на метаболічні процеси
- 5. призначати ліки
- 6. несприятливо впливати на судини
- 7. міцний сон
- 8. порушення холестеринового обміну
- 9. зовнішні прояви хвороби
- 10. формування бляшок

#### II. Дайте відповіді на наступні питання:

- 1. What is atherosclerosis?
- 2. What does prevention and treatment of atherosclerosis mainly consist of?
- 3. Who has a high incidence of atherosclerosis?
- 4. What can advanced atherosclerosis lead to?
- 5. What does sudden rupture of soft plaque cause?

#### **III. Розкрийте поняття:** Атеросклероз

#### **Test**

1. Atheros	sclerosis is a co	ondition in	which an	artery	wall.	as	a result	of the
accumulation of	fatty materials	such as cho	lesterol.					
a) strains	b) contracts	c) drains	d) wider	ns e)	thicke	ens		

- 2. It is commonly referred to as a hardening or furring of ...
- a) the vessels b) the arteries c) the walls d) the ventricles e) the atria
- 3. It is caused by the formation of multiple ... within the arteries.
- a) ulcers b) sores c) cells d) plaques e) furs
- 4. Atherosclerosis of the blood vessels results from metabolic disturbances and particularly from disturbances of ... exchange.
  - a) fat b) glucose c) cholesterol d) carbohydrate e) protein
- 5. Drugs administered in treating atherosclerosis are the so-called ... substances, which prevent fat from accumulating in the organism.
  - a) lipotropic b) dissolvant c) vasodilator d) accumulative e) vasoconstrictors
- 6. Since ... affects the metabolic processes in the human body the patients with atherosclerosis are prescribed such drugs as bromide and valerian to improve its general condition.

a) the aliment system d) the endo	• •	b) the respiratory the nervous syste	•	c) the cardiovascular
7. Complicat cumulative.	ions of advance	ed atherosclerosis	are, slo	wly progressive and
a) long-turn	b) chronic	c) rapid	d) acute	e) severe

- 8. Most commonly, soft plaque suddenly ..., causing the formation of a thrombus that will rapidly slow or stop blood flow.
  - a) widens b) thickens c) tightens d) occluses e) ruptures
  - 9. It will lead to death of the tissues fed by the artery in approximately ...
  - a) 5 seconds b) several days c) 5 hours d) an hour e) 5 minutes
- 10. One of the most common recognized scenarios is called coronary thrombosis of a coronary artery, causing ....
- a) rheumatic endocarditis b) angina pectoris c) shock d) myocardial infarction e) stroke

#### **HYPERTENSION**

Exercise 1. Topic Vocabulary:

Energies 1. Topic vocasulary.		
aging, n	['eɪdʒɪŋ]	старіння
alcohol intake, n	['inteik]	вживання алкоголю
asymptomatic, adj	[æˌsɪmptəˈmætɪk]	безсимптомний
hypertension, <i>n</i>	[ˌhaɪpəˈtɛnʃən]	гіпертонія
hypotension, <i>n</i>	[ˌhaɪpəʊˈtɛnʃən]	гіпотонія
insufficient, adj	[ˌɪnsəˈfɪʃənt]	недостатній
measurement, n	[ˈmɛʒəmənt]	вимірювання; вимір
moderate, adj	[ˈmɒdərɪt]	помірний
persistent, adj	[pəˈsɪstənt]	стійкий
potassium, n	[pəˈtæsɪəm]	калій
sedentary, adj	[ˈsɛd <sup>ə</sup> ntərɪ]	сидячий
stroke, n	[strəʊk]	інсульт

#### Exercise 2. Match the definitions with the words from active vocabulary:

- 1. The process of growing old or maturing;
- 2. Loss of brain function due to a disturbance in the blood supply to the brain;
- 3. Characterized by much sitting;
- 4. Without symptoms;
- 5. Abnormally low blood pressure;
- 6. Inadequate or deficient;
- 7. Insistently repetitive or continuous;
- 8. Abnormally elevated blood pressure.

#### **Exercise 3. Translate the word combinations:**

Cardiac chronic medical condition; systemic arterial blood pressure; primary hypertension; secondary hypertension; obvious medical cause; persistent hypertension; risk factors for stroke; chronic kidney failure; moderate elevation; shortened life expectancy; dietary and lifestyle changes; associated health complications; ineffective or insufficient; accelerated hypertension; direct cause; sedentary lifestyle; potassium deficiency; salt sensitivity; inherited genetic mutations; family history of hypertension.

# Exercise 4. Read and translate the text: HYPERTENSION

Hypertension or high blood pressure is a cardiac chronic medical condition in which the systemic arterial blood pressure is elevated. What that means is that the heart has to work harder than it should to pump the blood around the body. Blood pressure involves two measurements, systolic and diastolic. Normal blood pressure is 120/80 mm/Hg. The first figure is the systolic blood pressure, the pressure there is in the arteries when your heart is contracting. The second, or lower figure, is the diastolic blood pressure, which is the pressure in your arteries between heart beats. High blood pressure is anything above 140/90 mm/Hg. Hypertension is the opposite of

hypotension. Hypertension is classified as either primary hypertension or secondary hypertension. About 90–95% of cases are categorized as "primary hypertension," which means high blood pressure with no obvious medical cause. The remaining 5–10% of cases (iecondary hypertension) are caused by other conditions that affect the kidneys, arteries, heart or endocrine system.

Persistent hypertension is one of the risk factors for stroke, myocardial infarction and heart failure, and is a leading cause of chronic kidney failure. Moderate elevation of arterial blood pressure leads to shortened life expectancy. Dietary and lifestyle changes can improve blood pressure control and decrease the risk of associated health complications, although drug treatment may prove necessary in patients for whom lifestyle changes are ineffective or insufficient.

Mild to moderate essential hypertension is usually asymptomatic. Accelerated hypertension is associated with headache, drowsiness, confusion, vision disorders, nausea, and vomiting.

Although no direct cause for hypertension has been identified, there are many factors such as sedentary lifestyle, smoking, stress, obesity, potassium deficiency, salt sensitivity, alcohol intake, and vitamin D deficiency that increase the risk of developing hypertension. Risk also increases with aging, some inherited genetic mutations, and having a family history of hypertension.

The first line of treatment for hypertension includes some lifestyle changes such as dietary changes; physical exercises; weight loss.

#### **Exercise 5. Answer the questions to the text:**

- 1. What is systolic blood pressure?
- 2. What is diastolic blood pressure?
- 3. What blood pressure is considered to be normal?
- 4. What may persistent hypertension lead to?
- 5. What are the consequences of moderate elevation of blood pressure?
- 6. What is accelerated hypertension associated with?
- 7. What increases the risk of developing hypertension?
- 8. How is hypertension usually treated?

# Exercise 6. Find the translation of the following word combinations in the text:

Первинна гіпертонія; виправдовувати негайне застосування ліків; стійка гіпертонія; зміни у способі життя; помірне підвищення кров'яного тиску; пряма причина; наявність гіпертонії у сім'ї; дефіцит калію; сидячий спосіб життя; фактори ризику інсульту; фізичні вправи; зміни у харчуванні; успадковані генетичні мутації; чутливість до солі; неефективний та недостатній.

**Exercise 7. Find antonyms of the following words:** 

	·		0
1.	effective	a.	shortened
2.	prolonged	b.	secondary
3.	decreased	c.	hypotension

4.	hypertension	d.	ineffective
5.	deteriorate	e.	elevated
6.	sufficient	f.	intake
7.	consumption	g.	improve
8.	primary	h.	insufficient

#### Exercise 8. Is it true or false?

- 1. Systolic blood pressure is pressure between heart beats.
- 2. Primary hypertension means hypertension without any predisposing reasons.
- 3. Persistent hypertension may lead to heart failure.
- 4. There are many symptoms accompanying hypertension.
- 5. Losing weight helps to treat hypertension.
- 6. Moderate elevation of blood pressure doesn't influence life expectancy.
- 7. Primary hypertension is more spread than secondary one.
- 8. Drugs are prescribed when hypertension is very high.

#### **Exercise 9. Translate the sentences into English:**

- 1. Постійний високий кров'яний тиск може призвести до інфаркту міокарда, серцевої недостатності, інсульту та ниркової недостатності.
  - 2. Первинна гіпертонія зазвичай виникає без причин.
  - 3. Вважається, що нормальний тиск це 120/80.
- 4. Якщо зміна способу життя та здорове харчування не допомагають вилікувати гіпертонію, то можуть бути назначені ліки.
  - 5. Немає очевидних причин, які могли б викликати гіпертонію.
- 6. Сидячий спосіб життя, куріння, погане харчування та зловживання алкоголем підвищують ризик розвитку постійної гіпертонії.
- 7. Успадковані генетичні мутації можуть бути однією з причин розвитку гіпертонії.
- 8. Статистика показує, що у багатьох людей з підвищеним кров'яним тиском є надлишкова вага.

### **Exercise 10. Put questions to the underlined words:**

- 1. The heart has to work harder to pump the blood around the body.
- 2. Blood pressure involves two measurements.
- 3. Normal blood pressure is <u>120/80 mm/Hg.</u>
- 4. <u>Hypertension</u> is classified as either primary hypertension or secondary hypertension.
- 5. Moderate elevation of arterial blood pressure leads to <u>shortened life</u> <u>expectancy.</u>
  - 6. <u>Dietary and lifestyle changes</u> can improve blood pressure control.
- 7. Accelerated hypertension is associated with <u>headache</u>, <u>drowsiness</u>, <u>confusion</u>, <u>vision disorders</u>, <u>nausea</u>, <u>and vomiting</u>.
  - 8. The first line of treatment for hypertension includes some lifestyle changes.

# Exercise 11. Open the brackets put the verbs into the appropriate tense (Active or Passive):

- 1. Occupation (not to play) an important role in the etiology of hypertension.
- 2. Hypertension in the older age group (to associate) with loss of elasticity of the aorta and its main branches.
  - 3. Hypertension (to be) more common in the female than in the male.
- 4. Hypertension (to tolerate) better during the child-bearing years in the female than hypertension in the male.
  - 5. Lifestyle changes (to recommend) together with medications.
- 6. Accelerated hypertension (to associate) with headache, drowsiness, confusion, vision disorders, nausea, and vomiting.
- 7. Dietary and lifestyle changes (to decrease) the risk of associated health complications.
  - 8. No direct cause for hypertension (to identify) yet.

Exercise 12. Describe the term "Hypertension" according to the table:

1.	General characteristics	
2.	Symptoms	
3.	Analyses	
4.	Treatment	
5.	Complications	

#### Завдання для самостійної роботи студентів (СРС)

### 1. Перекладіть та вивчіть наступні словосполучення:

- 1. Качати кров по всьому організму
- 2. Підвищувати ризик розвитку гіпертонії
- 3. Успадковані генетичні мутації
- 4. Систематично підвищений артеріальний тиск
- 5. Первинна і вторинна гіпертонія
- 6. Високий тиск без очевидної медичної проблеми
- 7. Бути фактором ризику для інсульту та інфаркту міокарда
- 8. Призводити до вкороченої тривалості життя
- 9. Зменшити ризик ускладнення здоров'я
- 10. Рекомендувати ліки і зміни стилю життя

# 2. Дайте відповіді на наступні питання:

- 1. What is systolic blood pressure?
- 2. What is diastolic blood pressure?
- 3. How is hypertension classified?
- 4. What may persistent hypertension lead to?
- 5. What may be the cause of hypertension?
- 3. Дайте визначення: Гіпертонія

#### Test

which	1. Hypertension of the systemic arter			ac chronic medica	l condition in
	· ·	-		d) absent;	e) reduced.
	2. Normal blood p a) 140/90 mm/Hg d) 100/50 mm/Hg	b) 120/8		c) 110/60 i	mm/Hg
	3. High blood pre a) 140/90 mm/Hg d) 100/50 mm/Hg	b) 120/8	0 mm/Hg	c) 110/60 mm/Hg	g;
	<ul><li>4. Primary hypert</li><li>a) high blood pres</li><li>b) hypertension d</li><li>c) hypertension d</li><li>d) hypertension d</li><li>e) high blood pres</li></ul>	ssure with no ob ue to conditions ue to conditions ue to conditions	vious medical cathat affect the k that affect arterithat affect endo	idneys; ies;	
	<ul><li>5. Persistent hype</li><li>a) heart failure</li><li>d) chronic kidney</li></ul>	b) myoc	ardial infarction		
	6. Moderate eleva a) death; l d) kidney failure;	o) heart diseases	; c) shortened		
	· ·	ith headache	b) is usually ders d) is	y asymptomatic associated with	nausea, and
	8. The first line of a) antibiotics d) surgical interven	b) chem	otherapy	udes c) some lifestyle	changes;
disord	lers, nausea, and v			drowsiness, confi d) primary e) s	
		ke, and vitamin l b) hypot	O deficiency inc ension	ty, potassium der rease the risk of de c) myocardial inf	eveloping

#### **MYOCARDIAL INFARCTION**

Exercise 1. Topic vocabulary:

consciousness, n	[ˈkʌnʃəsnis]	свідомість
exertion, n	[igz'ɛ:∫n]	напруження
experience, v	[iks'piəriəns]	відчувати
indigestion, n	[indi'd3estʃən]	нетравлення
ischaemia, n	[is'ki:miə]	ішемія
interruption, n	[intəˈrʌpʃn]	порушення
plaque, n	[pla:k]	бляшка
rupture, n	[ˈrʌptʃə]	розрив

# Exercise 2. Read and learn the following word combinations. Translate the sentences into Ukrainian:

#### 1. Interruption of blood supply – порушення кровопостачання

Arterial embolism is a sudden interruption of blood flow to an organ or body part due to a clot.

#### 2. Occlusion of the coronary artery – закупорка коронарної артерії

Occlusion of the coronary artery which carries blood containing oxygen and other nutrients essential to the normal functioning of the heart muscle may be partial or complete.

#### 3. Physical exertion – фізичне навантаження

Anybody who engages regularly in intense physical exertions is strongly advised to have routine echocardiographic screening.

### 4. Chest pain – біль у грудній клітині

Chest pain is discomfort or pain along the front of your body between the neck and upper abdomen. Any organ or tissue in the chest can be the source of pain including heart, lungs, esophagus, muscles, ribs, tendons, or nerves.

### 5. Silent myocardial infarction – безсимптномний інфаркт міокарду

A heart attack does not always have obvious symptoms, such as pain in the chest, shortness of breath and cold sweats. In fact, a heart attack can actually happen any symptoms. It is called a silent heart attack, or medically referred to as silent ischemia (lack of oxygen) to the heart muscle.

### 6. Echocardiography – ехокардіографія

Echocardiography is a painless test that uses sound waves to create moving pictures of the heart. The pictures show the size and shape of your heart. They also show how well your heart's chambers and valves are working.

Exercise 3. Match the words from the left column with their synonyms in the right:

 <b>-</b>	~~		
1.	Occlusion	a.	Fatty acids
2.	Muscle tissue	b.	Fainting
3.	Detect	c.	Cure
4.	Shortness of breath	d.	Incidence of MI

5.	Lipids	e.	Restriction in blood supply
6.	Trigger	f.	Blockage
7.	Loss of consciousness	g.	Cause
8.	Heart attack rates	h.	Myocardium
9.	Treat	i.	Diagnose
10.	Ischemia	j.	Dispnoe

# Exercise 4. Read and translate the text: MYOCARDIAL INFARCTION

Myocardial infarction commonly known as a heart attack is the interruption of blood supply to a part of the heart causing heart cells to die. This is most commonly due to occlusion of a coronary artery after the rupture of an atherosclerotic plaque. The resulting ischaemia if left untreated for a sufficient period of time can cause damage or death of heart muscle tissue.

Heart attack rates are higher in intense exertions, such as psychological stress or physical exertion. Acute severe infection, such as pneumonia, can trigger myocardial infarction. Important risk factors are previous cardiovascular disease, older age, tobacco smoking, diabetes, high blood pressure, obesity, chronic kidney disease, heart failure, excessive alcohol consumption.

The onset of symptoms in myocardial infarction is usually gradual, over several minutes. Chest pain is the most common symptom of acute myocardial infarction and is often described as a sensation of tightness, pressure, or squeezing. Chest pain due to ischaemia of the heart muscle is termed angina pectoris. Pain radiates most often to the left arm, but may also radiate to the lower jaw, neck, right arm, back, and epigastrium.

Other symptoms include weakness, nausea, vomiting, and palpitation. Loss of consciousness and sudden death can occur in myocardial infarction. Women may experience fewer typical symptoms than men, most commonly shortness of breath, weakness, a feeling of indigestion, and fatigue. Approximately one quarter of all myocardial infarctions is "silent", without chest pain or other symptoms.

Among the diagnostic tests available to detect heart muscle damage are an electrocardiogram (ECG), echocardiography, and various blood tests. Immediate treatment for suspected acute myocardial infarction includes oxygen, aspirin, and sublingual nitroglycerin. Most cases are treated with thrombolysis or percutaneous coronary intervention. Heart attacks are the leading cause of death for both men and women worldwide. The risk of a recurrent myocardial infarction decreases with blood pressure control and lifestyle changes, regular exercise, a certain diet for patients with heart disease, and limitation of smoking and alcohol intake.

### **Exercise 5. Answer the following questins:**

- 1. What is myocardial infarction?
- 2. What is the most common cause of myocardial infarction?
- 3. What are the important risk factors for myocardial infarction?
- 4. List all possible symptoms of myocardial infarction.
- 5. What diagnostic tests are used to detect heart muscle damage?

6. What should people do to decrease the risk of a recurrent myocardial infarction?

#### **Exercise 6. Read and translate the following word-combinations:**

Interruption of blood supply; rupture of an atherosclerotic plaque; intense exertions; obesity, chronic kidney disease and heart failure; a sensation of tightness, pressure, or squeezing; angina pectoris, a feeling of indigestion and fatigue, nausea, vomiting, and palpitation, to decrease the risk of a recurrent myocardial infarction.

Exercise 7. What do these medical terms mean?

1	dyspepsia	a)	gases
2	thrombus	b)	vomiting
3	flatulence	c)	shortness of breath
4	emesis	d)	loss of appetite
5	palpitation	e)	nausea
6	retching	f)	accelerated heartbeat
7	dyspnea	g)	indigestion
8	anorexia	h)	clot

#### Exercise 8. What symptom is described?

Malaise, angina, heartburn, murmurs, dyspnoe, sweating, arrhythmia, indigestion

- 1) Difficulty in breathing;
- 2) Process of eliminating fluid through the pores of the skin;
- 3) Burning sensation beneath the breastbone caused by irritation of the esophagus;
  - 4) Feeling of unease or a mild sickness;
  - 5) Difficulty in digesting food, accompanied by abdominal pain, belching, etc.;
  - 6) Pressure in the chest;
  - 7) Abnormal sound heard through a stethoscope over the region of the heart;
  - 8) Any deviation from the normal rhythm in the heartbeat.

#### Exercise 9. What disease is described?

Heart attack, atherosclerosis, hypertension, diabetes, hypertension, pneumonia, obesity

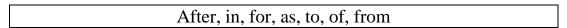
a)	high pressure (tension) in the arteries;	
b)	a medical condition when a patient has too much body fat;	
c)	an inflammation of one or both lungs which is usually caused by bacteria,	
	viruses, or fungi;	
d)	a process of progressive thickening and hardening of the artery walls as a result	
	of fat deposits on their inner lining;	
e)	chest discomfort that occurs when there is decreased blood oxygen supply to an	
	area of the heart muscle;	

f)	a chronic condition associated with abnormally high levels of sugar (glucose) in
	the blood;
g)	the death of heart muscle from the sudden blockage of a coronary artery by a
	blood clot;
h)	inflammation of the gall bladder due to bacterial infection or the presence of
	gallstones.

Exercise 10. Fill in the table "Myocardial Infarction":

1	Definition	
2	Causes	
3	Symptoms	
4	Risk factors for recurrent MI	
5	Examinations	
6	Treatment	

# Exercise 11. Read the passage on heart transplantation and fill in the gaps with appropriate prepositions:



One of the most important advances ..... heart surgery during the 1960s was the transplantion of the health heart immediately ..... the death of an individual (the donor) ..... a recipient suffering ..... incurable heart disease. In the 1980s new advances in the design and construction ..... an artificial heart – both the entire organ and such parts as the valves and large blood vessels – showed some promise in treating cardiovascular disease. The artificial heart has often been used ..... a temporary measure until a permanent human donor heart can be located. In addition, it is often unclear how long the recipient will have to wait ..... a donor.

#### **Exercise 12. Re-write sentences opening the brackets:**

Last year the patient Green, aged 65, (to admit) to the hospital with acute chest pain. He (to experience) shortness of breath and pain that (to radiate) to the left arm. The doctor immediately (to suspect) a heart attack and (to make) the patient (to take) an ECG. The diagnosis (to confirm) by the abnormal reading of the ECG. The blood analyses (to reveal) a number of cardiac enzymes. The cardiologist (to administer) his patient an adequate treatment. To relieve pain he (to give) nitroglycerin. Fortunately, the patient (not to have) any complications, because the doctor's help (to be) prompt and thorough. Very soon patient Green's condition (to improve).

### **Exercise 13. Put questions to the underlined words:**

- 1. A myocardial infarction is also known as a heart attack.
- 2. A MI means the death of heart muscle.
- 3. A MI is caused by the sudden blockage of a coronary artery by a blood clot.
- 4. Coronary arteries supply the heart muscle with blood and oxygen.
- 5. <u>Blockage of a coronary artery</u> deprives the heart muscle of blood and oxygen.

- 6. The onset of symptoms in myocardial infarction is usually gradual.
- 7. Acute severe infection, such as pneumonia, can trigger myocardial infarction.
- 8. In MI pain radiates most often to the left arm.

#### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть та вивчіть наступні словосполучення:

- 1. постачати кров та кисень
- 2. пошкодження сердечного м'язу
- 3. відчуття тиснення
- 4. висока частотність сердечних нападів
- 5. обмеження споживання тютюну та алкоголю
- 6. сильний грудний біль
- 7. печія та нетравлення шлунку
- 8. відчувати слабкість та нездужання
- 9. розрив атеросклеротичної бляшки
- 10. серцева недостатність

#### II. Дайте відповіді на наступні питання:

- 1. What is a myocardial infarction?
- 2. What does the blockage of the coronary artery cause?
- 3. What are all possible symptoms of MI?
- 4. What diagnostic tests are used to detect heart muscle damage?
- 5. What should people do to decrease the risk of a recurrent myocardial infarction?

### **III. Розкрийте поняття терміну:** інфаркт міокарду

#### **Test**

- 1. What is meant by the term myocardial infarction?
- a) a heart failure b) a heart attack c) brain aneurism d) all variants are correct
- 2. During the myocardial infarction the heart muscle ...
- a) recovers b) doesn't change c) dies d) nothing occurs with it
- 3. The heart attack is caused by the sudden blockage of a coronary artery by ...
- a) a blood clot b) an aneurism c) a cholesterol plaque d) tiny amount of oxygen
- 4. Blockage of a coronary artery deprives the heart muscle of ...
- a) carbon dioxide b) water c) oxygen d) oxygen and blood
- 5. Injury to the heart muscle causes ...
- a) vomiting b) chest pain c) fever d) headache
- 6. The high rate of heart attacks is most frequently associated with ...
- a) gastric ulcers b) depression c) physical exertion and stress d) smoking
- 7. Any acute infection, e.g. pneumonia, can also ... a myocardial infarction.
- a) trigger b) prevent c) avoid d) escape
- 8. Heavy alcohol consumption and cigarette smoking greatly ... to IM.
- a) contribute b) deprive c) prevent d) serve

- 9. The symptoms in MI are always ...
- a) vague b) clear c) unnoticed d) sometimes vague, sometimes clear
- 10. Heart attacks producing no symptoms can be ...
- a) life-threatening b) safe c) secure d) mild

#### ISCHAEMIC HEART DISEASE

Exercise 1. Topic vocabulary:

Exercise 1. Topic vocabulary.				
alternative, adj	[ɔ:l 'tə:nativ]	перемінний, змінний		
angina, <i>n</i>	[æn ˈʤaɪnə]	стенокардія, грудна "жаба"		
angiogram, n	[ˈænʤɪəʊgræm]	ангіограма (рентгенограма		
		після ангіографії)		
atherosclerosis, n	[æθərəusklə(ɪə) 'rəusis]	атеросклероз		
bypass, n	['baipa:s]	обхід, шунтування		
cholesterol, n	[kə 'lestərəl]	холестерин		
electrocardiography, n	[ı 'lɛktrəʊ	електрокардіографія		
	'ka:dıəʊgra:(æ)fı]			
hypercholesterolaemia, n	[haɪpəkəlɛstərɒ	підвищений вміст		
	'li:mɪə]	холестерину в крові		
hyperlipidaemia, <i>n</i>	[ˈhaɪpə lɪpɪ 'di:mɪə]	підвищений вміст жирів у		
		крові		
ischaemic, adj	[ı 'ski:mik]	ішемічний		
percutaneous, adj	[pə:kju 'teiniəs]	черезшкірний		
scintigraphy, n	[sın 'tıgrəfi]	сцинтіграфія		
sequential, adj	[si 'kwenʃəl]	послідовний, неперервний		

# Exercise 2. Read and learn the following word combinations. Translate the sentences into Ukrainian:

#### 1. reduced blood supply - зменшене кровопостачання

As the existing cholesterol plaque decreases the lumen of the blood vessel, the person may experience reduced blood supply to the heart and complain of oppression behind the sternum.

### 2. decreased tolerance - знижена переносимість

Unfortunately, the patient didn't express decreased tolerance to lidocaine and was transferred to the intensive care unit.

# 3. rapidly worsening - той, який швидко погіршується

All the surgical procedures had been performed, the patient's condition was rapidly worsening.

### 4. coronary bypass surgery - шунтування коронарних судин

Coronary bypass surgery is a surgical procedure performed to relieve angina and reduce the risk of death from coronary artery disease.

# 5. assessment of the risk – оцінювання ризику

The ability of accurate risk assessment is a guarantee of successful treatment of the patient.

### 6. predictable level - рівень, який можливо передбачати

Unfortunately, his blood creatinine increased over the predictable level and the specialists didn't react as quickly as they should.

### 7. admission to the hospital - госпіталізація

On admission to the hospital the patient didn't exhibit any vitally dangerous signs.

8. *irregularity in the heart rate —нерегулярність ритму серця* Heart palpitations are referred to the irregularities in the heart rate.

Exercise 3. Match the following terms with their definitions:

1.	coronary	a. transthoracic interpretation of the electrical		
		activity of the heart over time captured and		
		externally recorded by skin electrodes		
2.	cholesterol	b. feeling of oppression on the heart caused by		
		insufficient oxygen supply of the heart muscle		
3.	electrocardiogram	c. pertaining to the heart		
4.	angiography	d. visualization of the lumen of blood vessels		
		and organs of the body		
5.	angina pectoris	e. inability of the heart to supply sufficient		
		blood flow		
6.	myocardial	f. necrosis of the myocardium lack due to of		
infa	rction	oxygen		
7.	heart failure	g. a surgical technique for restoring normal		
		blood flow through an artery narrowed or blocked		
		by atherosclerosis, either by inserting a balloon into		
		the narrowed section and inflating it or by using a		
		laser beam		
8.	angioplasty	h. fat that may be deposited on the blood vessel		
		walls		
9.	arrhythmia	i. abnormal electrical activity in the heart		

Exercise 4. Match the following Ukrainian word combinations with the English ones:

1. to increase with age	а. знижена переносимість		
2. stable ischaemic heart	b. припинення паління		
disease			
3. rapidly worsening angina	с. наступні проблеми		
4. on exertion	d. відділення невідкладної допомоги		
5. following problems	е. недостатнє кровопостачання		
6. weakness of the muscle	f. готовність пацієнта до хірургічного		
	втручання		
7. insufficient blood supply	g. зростати з віком		
8. to induce the symptoms	h. стенокардія, що раптово погіршується		
9. suitability for surgery	і. при навантаженні		
10. emergency department	ј. стабільна ішемічна хвороба серця		
11. cessation of smoking	k. викликати симптоми		
12. decreased tolerance	1. слабкість м'язу		

# Exercise 5. Read and translate the text: ISCHAEMIC HEART DISEASE

Ischaemic heart disease (IHD), or myocardial ischaemia, is a disease characterized by ischaemia (reduced blood supply) of the heart muscle, usually due to coronary artery disease (atherosclerosis of the coronary arteries). Its risk increases with age, smoking, hypercholesterolaemia (high cholesterol levels), diabetes, and hypertension (high blood pressure), and is more common in men and those who have close relatives with ischaemic heart disease.

Symptoms of stable ischaemic heart disease include angina (characteristic chest pain on exertion) and decreased exercise tolerance. Unstable IHD presents itself as chest pain or other symptoms at rest or rapidly worsening angina. Diagnosis of IHD is performed using data of an electrocardiogram, blood tests (cardiac markers), cardiac stress testing or a coronary angiogram. Depending on the symptoms and risk, treatment may be with medication, percutaneous coronary intervention (angioplasty) or coronary artery bypass surgery (CABS).

The medical history distinguishes between various alternative causes for chest pain (such as dyspepsia, musculoskeletal pain, pulmonary embolism). As part of an assessment of the three main presentations of IHD, risk factors are addressed. These are the main causes of atherosclerosis (the disease process underlying IHD): age, male sex, hyperlipidaemia (high cholesterol and high fats in the blood), smoking, hypertension (high blood pressure), diabetes, and the family history.

Ischaemic heart disease may be present with any of the following problems: angina pectoris (chest pain on exertion, in cold weather or emotional situations); acute chest pain: acute coronary syndrome, unstable angina or myocardial infarction ("heart attack", severe chest pain unrelieved by rest associated with evidence of acute heart damage) and heart failure (difficulty in breathing or swelling of the extremities due to weakness of the heart muscle).

In "stable" angina, chest pain with typical features occurring at predictable levels of exertion, various forms of cardiac stress tests may be used to induce both symptoms and detect changes by way of electrocardiography (using an ECG), echocardiography (using ultrasound of the heart) or scintigraphy (using uptake of radionuclide by the heart muscle). If part of the heart seems to receive an insufficient blood supply, coronary angiography may be used to identify stenosis of the coronary arteries and suitability for angioplasty or bypass surgery.

Diagnosis of acute coronary syndrome generally takes place in the emergency department, where ECGs may be performed sequentially to identify "evolving changes" (indicating ongoing damage to the heart muscle). This process usually necessitates admission to hospital, and close observation on a coronary care unit for possible complications (such as cardiac arrhythmias - irregularities in the heart rate).

Various treatments are offered in people deemed to be at high risk of coronary artery disease. These include control of cholesterol levels in those with known high cholesterol, smoking cessation, and control of high blood pressure. In stable IHD, antianginal drugs may be used to reduce the rate of occurrence and severity of angina attacks. Revascularization for acute coronary syndrome has a significant mortality

benefit. Recent evidence suggests that revascularization for stable ischaemic heart disease may also confer a mortality benefit over medical therapy alone.

Treatment of coronary artery disease includes addressing "modifiable" risk factors. This includes suppression of cholesterol (usually with statins), even in those with statistically normal cholesterol levels, control of blood pressure, blood sugars (if diabetic), regular exercise and a healthy diet. Smokers are encouraged to stop smoking.

#### **Exercise 6. Answer the following questions:**

- 1. What is ischaemic heart disease?
- 2. What factors may cause cardiac ischemia?
- 3. What are the symptoms of ischemia?
- 4. What diseases may develop in case of cardiac ischemia?
- 5. What is the sequence of physician's actions for the patient with ischemia suspected?
  - 6. What analyses are necessary to establish the diagnosis of ischemia?
  - 7. What is the treatment of ischemic heart disease?
  - 8. What diseases may diseases accompany ischemia?

Exercise 7. Angina is a symptom of coronary heart disease. Match the types of angina and its definitions:

types of anglia and its definitions.			
1. Stable angina	a. The pain comes on after only a little effort (such as just		
	taking a few steps). It usually happens when one of the blood		
	vessels supplying your heart becomes so narrowed that a person		
	is at risk of a heart attack.		
2. Unstable angina	b. This is angina that is brought on by exertion. It happens		
	when the blood vessels supplying your heart become narrowed,		
	restricting the blood supply. The angina pain usually lasts for		
	only a few minutes and goes away when you rest. But the pain		
	may return when the effort begins again. This can usually be		
	well controlled with medication.		
3. Variant angina	c. This rare type of angina occurs without warning. It's due		
	to spasm of a coronary artery. You may need further tests to		
	diagnose this type of angina. During an attack, there can be		
	irregularities in the heart's normal rhythm.		

# Exercise 8. Complete the following sentences choosing suitable words from the box:

Die, develop, control, twice, excess, likely, increases, risk

- 1. Over 83 per cent of people who ...... of coronary heart disease are 65-year-old individuals or older.
- 2. At older ages, women who have heart attacks are more ..... than men to die of them within a few weeks.
  - 3. Children of parents with heart disease are more likely to ...... it themselves.

- 4. Smokers' ...... of developing coronary heart disease is 2-4 times that of nonsmokers.
- 5. Cigarette smoking is a powerful independent risk factor for sudden cardiac death in patients with coronary heart disease; smokers have about ...... the risk of non-smokers.
- 6. High blood pressure ...... the heart's workload, causing the heart to thicken and become stiffer. It also ...... your risk of stroke, heart attack, kidney failure and congestive heart failure.
- 7. People who have ...... body fat especially if it is at the waist are more likely to develop heart disease and stroke even if they have no other risk factors.
- 8. Diabetes seriously increases your risk of developing cardiovascular disease. Even when glucose (blood sugar) levels are under ......, diabetes increases the risk of heart disease and stroke, but the risks are even higher if blood sugar is not well controlled.

#### **Exercise 9. Choose the proper continuation:**

- a) Coronary ischaemia...
- b) Angina pectoris...
- c) Atherosclerosis...
- d) *Myocardial infarction*....
- e) The diagnosis of ischaemia...
- f) It is possible to prevent the ischaemic condition by....
- g) Coronary bypass surgery....
- h) The treatment of ischaemic conditions...
- 1. ....is the most common cause of death in most Western countries and a major cause of hospital admissions.
  - 2. ...unlike the angina, is an irreversible condition.
- 3. ....may be expressed by chest discomfort and associated symptoms precipitated by some activity (running, walking, etc.) with minimal or non-existent symptoms at rest.
- 4. ...is established on the basis of the case history, ECG and angiography results.
  - 5. ...improves the chances of survival of patients who are at high risk.
- 6. ...is a disease of large and medium-sized muscular arteries and is characterized by endothelial dysfunction, vascular inflammation, and the build-up of lipids, cholesterol, calcium, and cellular debris within the lining of the vessel wall.
- 7. ....control of cholesterol levels in those with known high cholesterol, smoking cessation, and control of high blood pressure.
- 8. ....includes addressing "modifiable" risk factors, like suppression of cholesterol.

#### **Exercise 10. Match the synonyms:**

1.	to increase	a.	stop, interruption
2.	exertion	b.	quickly

3. rapidly	c. to connect with
4. to perform	d. oedema
5. to associate	e. to enhance
6. swallowing	f. to recognize
7. uptake	g. to execute
8. to identify	h. admittance
9. admission	i. ingestion
10. cessation	j. physical efforts

Exercise 11. What symptoms are common for the heart diseases? The suggestions on the right may help you to answer. Make sentences of your own:

Diseases	Symptoms Symptoms
Arrhythmia	1. nausea and vomiting
	2. palpitation
Angina pectoris	3. dizziness
	4. pain in the chest
Cardiac insufficiency	5. breathlessness
	6. pulmonary oedema
Aneurism	7. panic and fear of death
	8. bluish skin
Congenital heart disease	9. attacks of pain, especially after exertion
	10. pain in the neck, throat and arms
	11. sweating
	12. skin pallor

# Exercise 12. Arrange the following sentences according to the following two columns:

I	MANAGEMENT	MEDICATIONS

- 1. Calcium channel blockers and/or beta-blockers;
- 2. Lifestyle changes;
- 3. Nitroglycerin;
- 4. ACE inhibitors, which treat hypertension and may lower the risk of recurrent myocardial infarction;
- 5. Medical treatment drugs (e.g. cholesterol lowering medications, betablockers, nitroglycerin, calcium antagonists, etc.);
  - 6. Coronary artery bypass grafting (CABG);
  - 7. Statins, which reduce cholesterol, reduce risk of coronary disease;
  - 8. Coronary interventions as angioplasty and coronary stent

### Exercise 13. Fill in the gaps with the correct word:

- 1. The principal cause of the ischemic heart disease is the reduction of the ...... of blood which the arteries provide for the heart to function at normal parameters. (amount / size)
  - 2. The ischemia starts by some fatty ..... built up in the cells of the wall

which surrounds the coronary arteries (the main source of blood for the heart). (deposits / lipids)

- 3. The fat grows step by step into large twigs of the coronary arteries, process called ...... which brings about the narrowing of the coronary arteries which supply the heart muscle. (atherosclerosis / stroke)
- 4. A heart attack ...... when the blood vessels are completely closed. Ischemia refers to an insufficient amount of blood. (feels / occurs)
- 5. At the beginning the coronary arteries or even their branches are becoming ...... or they are closed because of the debris flowed into the blood, which is referred to as an angina. (thick / narrow)
- 6. ..... ischemia is very concerning in patients with diabetes because due to without any warning signs patients don't consult the doctor. (loud / silent)
- 7. Ischemic heart disease doesn't have exact known causes, but there are certain ...... that must be taken into consideration as for example age, heredity, smoking, diabetes or obesity. (risk factors / risk events)
- 8. The lethal symptom of ischemic heart disease is sudden death also known as massive heart attack and it is caused by an abnormal heart ......, ventricular fibrillation that prevents the heart from contracting and pumping oxygenated blood to the brain and vital organs. (**rhythm / stage**)

#### **Exercise 14. Fill in the gaps with correct prepositions:**

of, throughout,	un about a	at in for	hv
or, unougnout,	up, about, t	at, 111, 101,	U y

- 1. When there is a reduction......blood flow to the heart of a person, then it may be a sign......ischemic heart disease which is, in fact, a major health concern......the western world.
- 2. In any person, regardless of diet or native land, it is natural plaque to build ...... along the walls of arteries.
- 3. For some, this never becomes an issue and they lead a normal life ....... average length.
- 4. However, ..... some, there can be a resulting problem which is called arteriosclerosis.
- 5. The one good thing ...... ischemic heart disease is that the medical field knows what the cause is, which means something can be done to avoid the problem.
- 6. There are simple things that those ...... risk of or who have ischemic heart disease can do: stop consuming high saturated fat foods, avoid smoking, and exercise regularly.
- 7. ..... other words, leading a healthy lifestyle can help you avoid heart disease.
- 8. Foods high ...... saturated fats will cause more the plaque your system that builds up on the walls of arteries.
- 9. ...... avoiding these foods as much as possible, you are a avoiding the material that is used to block arteries.
  - 10. Secondly, exercise will make your heart more efficient and allow your

body to consume the fats you do take.

#### **Exercise 15. Translate the following sentences into English:**

- 1. Ішемічна хвороба серця (ІХС) це патологічний стан, що характеризується абсолютним або відносним порушенням кровопостачання міокарда внаслідок ураження коронарних артерій серця.
- 2. Відповідно до сучасної класифікації ІХС виділяють такі її клінічні форми: стенокардія, інфаркт міокарда, порушення серцевого ритму, серцева недостатність, раптова коронарна смерть.
- 3. Причинами IXC  $\epsilon$  атеросклероз коронарних артерій та порушення їх тонусу.
- 4. До розвитку IXC призводять гіперліпідемія, артеріальна гіпертензія, паління, гіподинамія, надлишкова маса тіла та висококалорійне харчування, цукровий діабет і генетична схильність.
- 5. Основним патогенним фактором  $\epsilon$  атеросклеротичне ураження коронарних артерій.
- 6. Найбільш частим проявом хронічної ІХС  $\epsilon$  стенокардія, що характеризується нападами загрудинного болю.
- 7. Головний принцип лікування хворих із стабільною стенокардією попередження ішемії міокарда та контроль її клінічних проявів.
- 8. Для попередження тромбоутворення в ділянці атеросклеротичної бляшки у пацієнтів із нестабільною стенокардією застосовують гепарин.

#### Exercise 16. Open the brackets using appropriate Participle:

- 1. A stroke, previously (to know) medically as a cerebrovascular accident (CVA), is a rapidly developing loss of brain function(s) due to disturbance in the blood supply to the brain.
- 2. This can be due to ischemia (lack of blood flow) (to cause) by blockage (thrombosis, arterial embolism), or a hemorrhage (leakage of blood).
- 3. As a result, the area of the brain (to affect) with the stroke, is unable to function, (to lead) to inability to move one or more limbs on one side of the body, inability to understand or formulate speech, or an inability to see one side of the visual field.
- 4. Risk factors for stroke include advanced age, hypertension (high blood pressure), previous stroke or transient ischemic attack (TIA), diabetes, high cholesterol, cigarette smoking and atrial fibrillation. The patient (to have) a stroke previously is twice as probable to have the stroke again.
- 5. A silent stroke is a stroke that (not to possess) any symptoms, and the patients are typically unaware they have suffered a stroke.
- 6. Those (to suffer) from a major stroke before, are at risk of having silent strokes.
- 7. An ischemic stroke is occasionally treated at hospital with drugs (to exhibit) thrombolytic action (also known as a "clot buster"), and some hemorrhagic strokes benefit from neurosurgery.
  - 8. The treatment (to involve) health professions such as speech and language

therapy, physical therapy and occupational therapy is performed in a stroke unit.

Exe	rcise 17. Choose the correct answer. Translate the sentences:
<i>1</i> .	The surgeon the cardiotomy, was observed by a group of
students.	
1	. performed
2	. performing
3	. having performed
4	. being performed
2.	This cardiologist the operations without complications is
known wor	ldwide.
1	. performing
2	. performed
3	. perform
4	. having performed
<i>3</i> .	loudly about the food to her mother, the child refused eating.
1	. complained
2	. complaining
3	. having complained
4	. complains
4.	A neurosurgeon was seen the tissues with a scalpel.
1.	dissect
2.	have dissect
3.	dissecting
4.	dissected
<i>5</i> .	A doctor spoke with the patient about exhaustion, and the
correct dia	gnosis was established.
1	. complaining
2	. having complained
3	. complain
4	. complains
<b>6</b> .	Suddenly the students saw a patient his head and body in an
epileptic se	eizure.
1	. move
2	. moving
3	. moved
4	. moves
<i>7</i> .	After all the results of the examination, the technician started
analyses.	
1.	being recorded
2.	recorded
3.	record
4.	having recorded
8.	The dentist a very unique operation works at this department.

1. performed

- 2. performing
- 3. having performed
- 4. being performed
- **9.** ..... operated twice with complications, she didn't trust medicine anymore and tried to avoid surgeries.
  - 1. operated
  - 2. operating
  - 3. having operated
  - 4. having been operated
  - 10. A boy ...... by a pediatrician feels better than yesterday.
    - 1. observed
    - 2. observing
    - 3. observes
    - 4. having observed

#### **SPEAKING**

#### 1. Compare the known heart diseases. Focus on the following areas:

- symptoms
- objective data
- cause
- treatment
- prevention
- 2. You are an emergency department specialist working with the patients. What questions will you ask the patients with the following complaints (possibly evidencing about cardiovascular disorders)? What is your possible diagnosis?
- ➤ a 27-year-old man, severe substernal pain, nausea, vomiting, the abdomen produces sounds, regurgitation, increased blood pressure, some hours ago he ate fresh vegetable salad.
- ➤ a 54-year-old woman, pain in the left side of the thorax, nausea, headache, dizziness, nervousness, the pain irradiated into the armpit, pulsating.
- ➤ a 47-year-old woman, slight substernal pain, experiencing flushes of the face, sweating, nervous and hysterical, insists on being observed by all possible specialists.
- ➤ a 14-year-old boy, left thoracic pain, muscular pains, weakness, headaches, dizziness, bad memory, cyanotic skin.

### 3. Make doctor's questions for the answers and act out the dialogue:

**Doctor:** 

**Patient:** Hello. I feel an extensive pain in the left side.

**Doctor:** 

**Patient:** No, I don't mean the whole left side, I mean the area around the heart. And these headaches trouble me too much.

#### **Doctor:**

**Patient:** Of course there are many other troubles with my health: I feel nausea and I feel like vomiting right now. The room is moving in my eyes, and your image is vague.

#### **Doctor:**

**Patient:** I haven't had any food for a few days, so I haven't had stools too. By the way, my urine is pink.

#### **Doctor:**

**Patient:** Actually, **I** didn't mean to go to hospital for a long time, but could you give me some tablets to manage it somehow?

#### 3. Speak on the topics:

- **a.** You are a teacher at a medical university. Tell your students about the following:
- **b.** You are a lecturer invited to tell the people about some cardiovascular problems. Speak on the following topics, but mind that the people you are addressing to don't know medicine at all:
  - Atherosclerosis: dangers, prevention.
  - > Ischaemia of the heart vessels.
  - Angina pectoris and heart attack: development, treatment, first aid.
  - The importance of a healthy lifestyle for prevention of heart diseases.

#### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть наступні словосполучення:

- 1. стабільна ішемічна хвороба серця
- 2. зменшене кровопостачання
- 3. екстрена госпіталізація
- 4. знижена переносимість
- 5. різке погіршення стану
- 6. шунтування коронарних судин
- 7. оцінювання ризику
- 8. рівень, який можливо передбачати
- 9. нерегулярність ритму серця
- 10. відділення невідкладної допомоги

### **II.** Дайте відповідь на наступні питання:

- 1. What is ischaemic heart disease?
- 2. What factors may cause cardiac ischemia?
- 3. What are the symptoms of ischemia?
- 4. What diseases may develop in case of cardiac ischemia?
- 5. What analyses are necessary to establish the diagnosis of ischemia?
- 6. What is the treatment of ischemic heart disease?

### III. Розкрийте поняття: ішемічна хвороба серця

# Test

1. Ischemic heart disease is a disease characterized by ischemia of the heart				
muscle, usually due to disease.				
A) evoking-power B) gallbladder siphon C) blood coagulation				
D) coronary artery E) infected insect				
2. Ischemic heart disease is more common and those who have close				
relatives with ischemic heart disease.				
A) in women B) in men C) in infants				
D) in children E) in adolescents				
3 presents itself as chest pain or other symptoms at rest or rapidly				
worsening angina.				
A) Stable IHD B) Reverse IHD C) Unstable IHD				
D) Irreversible HID E) Persistent HID				
4. Depending the symptoms and risk, treatment may be with				
medication, percutaneous coronary intervention (angioplasty) or coronary artery				
bypass surgery (CABS).				
A) on B) in C) from D) out E) over				
5. Ischemic heart disease may be with any of the following				
problems: angina pectoris; acute chest pain and heart failure.				
A) absent B) easy C) important D) difficult E) present				
6. If part of the heart an insufficient blood supply, coronary				
angiography may be used to identify stenosis of the coronary arteries.				
A) seem to receive B) seems to receive C) seemed to receive				
D) seems receive E) seem receive				
7. Acute coronary syndrome usually necessitates admission to, and				
close observation on a coronary care unit for possible complications such as cardiac				
arrhythmias - irregularities in the heart rate.				
A) hospital B) university C) chemist's				
D) institution E) polyclinics				
8. An ischemic stroke is occasionally treated at hospital with drugs				
thrombolytic action (also known as a "clot buster"), and some				
hemorrhagic strokes benefit from neurosurgery.				
A) exhibit B) exhibiting C) having exhibit				
D) being exhibit E) exhibits				
9. At the beginning the coronary arteries or even their branches are becoming				
or they are closed because of the debris flowed into the blood, which is				
referred to as an angina.				
A) thick B) narrow C) thin D) round E) wide				
10 a surgical technique for restoring normal blood flow through				
an artery narrowed or blocked by atherosclerosis, either by inserting a balloon into the				
narrowed section and inflating it or by using a laser beam.				
A) angiogram B) angiograph C) angiomatosis				

#### **GASTRITIS**

**Exercise 1. Topic vocabulary:** 

Exercise 1: Topic			
antacid n	[ˌænt'æsɪd]	антацид, нейтралізатор	
		кислотності	
anti-inflammatory drug	['æntiɪn'flæm əˌtɔri 'drʌg]	протизапальний засіб	
n	-	-	
belching <i>n</i>	[belʧiŋ]	відрижка	
bile <i>adj</i> .	[baɪl]	жовчний	
bloating <i>n</i>	[bloʊtɪŋ]	здуття	
consumption <i>n</i>	[kənˈsemp∫(ə)n]	вживання	
cytoprotective agent <i>n</i>	['saitə(u) prə'tektiv	цитопротекторний засіб	
	'eɪdʒ(ə)nt]		
gastroscopy n	[gæˈstrɔskəpi]	гастроскопія	
heartburn <i>n</i>	[ˈhɑːtbɜːn]	печія	
heal n, v	[hi:l]	загоювання, загоюватися	
ibuprofen n	[ˌaɪbjuːˈprofən]	ібупрофен	
helicobacter pylori n	['helikəu'bæktə pai'lə:rai]	хелікобактер пілори	
indigestion <i>n</i>	[indi'dzestf(ə)n]	розлад травлення	
inhibitor <i>n</i>	[in'hibitə]	інгібітор	
lining n	[ˈlainiŋ]	вистелення	
loss of appetite <i>n</i>	[los ov 'æpitait]	втрата апетиту	
pernicious aneamia n	[pəˈniʃəs əˈni:mɪə]	злоякісна анемія	
pertain <i>v</i>	[pəˈteɪn]	належати, підходити	
proton pump inhibitor <i>n</i>	['prəʊtən pʌmp in'hibitə]	інгібітор протонової помпи	
reflux n	[ˈriːflʌks]	зворотній відтік	
stomach biopsy <i>n</i>	[ˈstʌmək ˈbaɪɔpsɪ]]	біопсія шлунка	

# Exercise 2. Using adjective ending -ic or -al write a word for each of the following definitions:

E.g. Pertaining to the caecum - caecal

- 1. Pertaining to the stomach –
- 2. Pertaining to the intestines –
- 3. Pertaining to the duodenum –
- 4. Pertaining to the epigastrium –
- 5. Pertaining to the rectum –
- 6. Pertaining to the anus –
- 7. Pertaining to the liver –
- 8. Pertaining to the pancreas -

# Exercise 3. Choose the word or phrase that doesn't go with the topic "gastritis":

1.	gastritis	vomiting	abdominal disease	stomatitis
2.	AIDS	loss of appetite	jaundice	urticaria
3.	tuberculosis	bile ducts	feeling of fullness	convulsive

4.	peptic ulcer	stool samples	pernicious aneamia	hepatic insufficiency
5.	nausea	bronchitis	stomach cells	renal impairment

# Exercise 4. Read the following word-combinations and translate them into your native language:

The lining of the stomach, extensive alcohol consumption, non-steroidal antiinflammatory drugs, chronic bile reflux, dull, vague, burning, sharp or gnawing pain, blood-streaked vomiting, bloating and belching, pernicious aneamia and heartburn, complete blood count test, to trigger the inflammation, over-the-counter antacids, lifethreatening consequences of the disease.

# Exercise 5. Read and translate the text: GASTRITIS

The digestive system is a series of hollow organs joined in a long tube. It runs from the mouth to the anus and includes esophagus, stomach, small and large intestines. Liver, gallbladder and pancreas are also involved. They produce juices to help digestion.

Gastrointestinal diseases refer to the diseases involving the gastrointestinal tract, namely all organs mentioned above. Though diseases of the mouth are often not considered to be gastrointestinal diseases, some diseases which involve other parts of the gastrointestinal tract can manifest in the mouth, alone or in combination with other symptoms.

Gastritis is an inflammation of the lining of the stomach. This disease has many possible causes. The stomach lining contains special cells that produce acid and enzymes, which help break down food for digestion, and mucus, which protects the stomach lining from acid. When the stomach lining is inflamed, it produces less acid, enzymes, and mucus.

The main acute causes are extensive alcohol consumption or prolonged use of non-steroidal anti-inflammatory drugs (also known as NSAIDs) such as aspirin or ibuprofen. Sometimes gastritis develops after major surgery, traumatic injury, burns or severe infections. Chronic causes are infection with bacteria, primarily Helicobacter pylori, chronic bile reflux, stress and certain autoimmune disorders can cause gastritis as well.

Many people with gastritis experience no symptoms at all. However, upper central abdominal pain is the most common symptom. The pain may be dull, vague, burning, sharp or gnawing. Nausea, vomiting (if present) may be clear, green or yellow, blood-streaked or completely bloody, depending on the severity of the stomach inflammation. The patient may suffer from belching, but it usually doesn't relieve the pain much. The patient may also experience bloating, heartburn, feeling full after only a few bites of food, loss of appetite, unexplained weight loss. Other symptoms are indigestion, abdominal bloating and pernicious aneamia.

Often a diagnosis can be made based on the patient's description of the symptoms. But not very often it is enough to make an appropriate diagnosis and so other methods may be used to identify gastritis, which include: complete blood count test; presence of H. pylori; liver, kidney, gallbladder or pancreas functions; urinalyses,

stool samples, X-rays, EGGs, endoscopy, checking for stomach lining inflammation and mucous erosion, stomach biopsy, etc.

Once the cause of gastritis is identified, steps can be taken to avoid exposure. For example, if some food is triggering the inflammation, you should exclude or reduce the amount of it. Over-the-counter antacids in liquid or tablet forms are common treatment for mild gastritis. Antacids neutralize stomach acid and can provide fast pain relief. Proton pump inhibitor appears to inhibit H.pylori activity. Cytoprotective agents help protect the tissue that line the stomach and small intestine. Consumption of hot or spicy food is contraindicated. Patients with pernicious aneamia are given B<sub>12</sub> injections. Several regimes are used to treat H.pylori infection. Most patient use a combination of antibiotics and a proton pump inhibitor. Antibiotics aids in destroying the bacteria and the proton pump inhibitor heals inflammation and may increase the effectiveness of antibiotics.

If left untreated, gastritis may lead to stomach ulcers and stomach bleeding. Life-threatening consequences of the disease can be stomach cancer, especially if you have extensive thinning of the stomach lining and changes in the lining's cells.

#### **Exercise 6 Answer the following questions:**

- 1. What is gastritis?
- 2. What is the function stomach lining?
- 3. What are the symptoms of gastritis?
- 4. What are the causes of gastritis?
- 5. Do stress or spicy food cause gastritis?
- 6. How is gastritis treated?
- 7. What is the diagnosis of gastritis based on?
- 8. What are the complications of gastritis?

# Exercise 7. Match the following Ukrainian words and word combinations with the English ones:

with the English ones.	
1. зловживання алкоголю	a. over-the-counter drugs
2. печія	b. life-threatening consequences of the
	disease
3. ліки, що дозволені до продажу без	c. heartburn
рецепту	
4. загрозливі для життя наслідки	d. enough relief
хвороби	
5. значне полегшення	e. abdominal bloating
6. розгорнутий аналіз крові	f. pernicious aneamia
7. блювота з домішками крові	g. extensive alcohol consumption
8. потоншення вистилки шлунка	h. complete blood count test
9. злоякісна анемія	i. blood-streaked vomiting
10. здуття черевної порожнини	j. thinning of the stomach lining

#### **Exercise 8. Say whether the sentences are true or false:**

1. Gastritis is an erosion of the stomach mucosa.

- 2. Gastritis is caused by autoimmune disorders.
- 3. Cytoprotective agents are used to fight with the H.pylori.
- 4. Gastritis is characterized by fever and rash covering the whole body.
- 5. Feeling full after only a few bites of food is one of the symptoms of gastritis.
- 6. Treatment of gastritis includes taking antacids and antibiotics.
- 7. The most common symptom of gastritis is pain in the pelvic cavity.
- 8. Many patients with gastritis may experience no symptoms at all.

#### **Exercise 9. Match the following terms with their definition:**

1. Gastritis	a. The most common type of peptic ulcer
2. Peptic ulcer	b. An adjunct to diagnosis that involves removing a small sample
	of living tissue from the body for examining under the microscope
3. Duodenal	c. The surgical removal of a part of the stomach
ulcer	
4. Gastrectomy	d. A flexible instrument, comprising fiber optics or a miniature
	video camera, that permits internal visual examination of the
	stomach
5. Biopsy	e. An ulcer in the stomach
6. Gastroscope	f. Non-steroidal anti-inflammatory drugs
7. NSAIDs	g. An inflammation of the stomach lining (mucosa)

# Exercise 10. Complete the following sentences choosing suitable words from the box:

Alcohol, spicy foods, infection, perforate, H.pylori,	
pernicious aneamia, bile reflux, NSAIDs	

- 1. ..... or smoking can make gastritis worse.
- 2. Consumption of ...... and alcohol should be strictly prohibited in patient with gastritis.
  - 3. You're more likely to develop gastritis if you're at risk of ............
- 4. You may need surgery if your ulcers ....., bleed or obstruct the stomach.
- 5. ..... weakens the lining so acid can reach the stomach and duodenal wall.
- 6. ...... are a class of drugs that provides analgesic (pain-killing) and antipyretic (fever-reducing) effects, and, in higher doses, anti-inflammatory effects.
- 7. Chronic cause of gastritis may be ...... that is a backflow of bile into the stomach.
- 8. ..... occurs when the stomach lacks red blood cells or hemoglobin needed to properly absorb and digest vitamin B12.

# Exercise 11. Translate the words given in *italics* into English. Translate the whole sentences into your native language:

1. Gastritis can be caused by irritation due to зловживанню алкоголем, chronic vomiting, stress.

- 2. The patient has been suffering from a *здуття черевної порожнини* for a prolonged period of time.
- 3. Ліки, що дозволені до продажу без рецепту may relieve pain in mild forms of gastritis.
- 4. Gastric cancer is *загрозливий для життя наслідок хвороби* caused by the atrophic gastritis.
- 5. The patient was complaining of відрижку that gave him only a temporary *полегшення* of pain.
- 6. It is important to administer a patient *розгорнутий аналіз крові* to identify the inflammation or some other deviation from the norm.
- 7. Злоякісна анемія was a fatal disease before about the year 1920, when George Whipple suggested raw liver as a treatment.
- 8. *Хронічний відтік жовчі* is considered to be one of the least causes of gastritis.

# Exercise 12. Choose the correct word that completes each of the following sentences:

- 1. Ulcer and cirrhosis are not (rare, rear) diseases among those who are prone to alcohol.
  - 2. The animal insulin can (course, cause, corse) allergic reactions.
- 3. At later stages gastric cancer can be treated but rarely can be (diagnosed, cured).
- 4. When gastric cancer is found at an early stage, there is better chance of (convalescence, premature death).
- 5. Smokers, who have stopped smoking, (lower, increase) their risk of getting gastritis.
- 6. Stomach cancer is a disease in which (malignant, benign) cells appear in the stomach.
- 7. Chemotherapy is a treatment that uses (chemical drugs, rays) to stop the growth of cancer cells.
- 8. After the stomach surgery the patient should take vitamin (supplements, addition) and injections of vitamin  $B_{12}$ .

Exercise 13. Learn the following Greek and Latin terms denoting medicine:
algia – pain in an organ
scope – denotes a viewing instrument, used for examining smth
itis - denotes inflammation of an organ
logy – denotes a branch of science
tomy - combining form meaning "cutting, incision" of an organ
ectomy - meaning "excision" of the part specified by the initial element
rrhagia – means "profuse discharge," "abnormal profuse flow"
malacia – means softening, or loss of consistency, of an organ or tissue
Exercise 14. Add the missing part of the clinical terms pertaining to the

# Exercise 14. Add the missing part of the clinical terms pertaining to the pathology of the stomach:

1. Gastro \_\_\_\_\_(an instrument inserted through the mouth to inspect the

inside of	the stomach)	
2.	Gastr	(the surgical removal of a part of the stomach)
3.	Gastr	(inflammation of the stomach lining)
4.	Gastro	(softening of stomach lining due to poor blood supply or
an inflam	mation)	
5.	Gastroentero	(the branch of medicine that is concerned with the
disorders	of the gastrointe	estinal tract)
6.	Gastros	(surgical incision into the stomach)
7.	Gastro	(a bleeding from the blood vessels and the stomach
lining)		
8.	Gastr	(pain in the stomach or abdominal region)

# Exercise 15. Translate sentences into your native language paying attention to Gerund:

**Reading** of scientific journals is useful. – **Читання** наукових журналів дуже корисно.

I like being read. – Я люблю, коли мені читають.

Having examined the patient the doctor made a diagnosis. – Оглянувши пацієнта, лікар поставив діагноз.

After having been examined by a doctor, the patient got a prescription. – Після того, як його оглянув лікар, пацієнт отримав рецепт.

- 1. I remember having been treated for pneumonia at this hospital.
- 2. The scientist continued investigating the properties of blood gases.
- 3. The dissecting room is worth visiting.
- 4. The patient had to give up going in for sport because of the disease of the joints.
- 5. After having been told the results of the X-ray examination the physician wrote them down in the patient's case history.
- 6. No physician can make a proper diagnosis without having examined the patient.
- 7. The patient with gastritis keeps complaining of her stomachache despite the prescribe treatment.
- 8. The doctor insisted on doubling the dose of anti-aneamia drug to the patient with pernicious aneamia.

### Exercise 16. Complete the sentences choosing suitable words from the box.

Moaning, prescribing, secreting, defining, having, smoking, relieving, bleeding

- 1. There are millions of people all over the world who gave up ...........
- 2. The gastric glands begin ..... before food enters the stomach.
- 3. The patient started ...... when the doctor began palpating his abdomen.
- 4. Erosions, ulcers and tumours can cause ......
- 5. Administration of drugs is an important part of ....... symptoms of gastritis.

- 6. The patient complained of ...... severe headaches which were not relieved by medications.
- 7. Making a correct diagnosis and ......a proper treatment leads to a quick recovery.
  - 8. The blood can't be transfused without ..... its blood group.

#### **Exercise 17. Put questions to underlined words:**

- 1. Stomach acids contribute to ulcer formation.
- 2. Slight elevation of temperature is observed in acute gastritis.
- 3. A diagnosis can be based on the history changes of the chest X-ray.
- 4. The patient has noticed that her gastric pains appear after eating.
- 5. There are several types of gastritis.
- 6. The pain often occurs between meals and early in the morning.
- 7. <u>The bacteria</u> have produced substances that weaken the stomach's mucosa.
  - 8. The patient felt much relief <u>after having taken this drug</u>.

#### **Exercise 18. Open the brackets and translate the sentences:**

- 1. Indirect laryngoscopy usually (to disclose) marked erythema of the mucous membrane.
- 2. Next Monday the patient suffering from severe liver damage (to make) a dialysis.
- 3. Preventive measures already (to carry) out to prevent early signs of gastric cancer.
  - 4. The patient (to feel) relief after he (to take) this medicine 2 hours before.
- 5. While the doctor (to examine) the patient, he (to notice) the enlargement of lymphatic glands.
- 6. If gastritis (not to treat) properly, it will lead to even cancer of the stomach.
  - 7. The patient (to suffer) from chronic gastritis for over 3 years.
  - 8. This patient (to become) ambulatory 2 weeks ago.

### **Exercise 19. Translate into English:**

- 1. Гастрит це запалення слизової оболонки шлунка, спричинене надмірним вживання алкоголю чи не стероїдним препаратами.
- 2. Більшість людей, які хворіють на гастрит, спочатку не відчувають розладів травної системи.
- 3. Гастрит супроводжується нудотою, блювотою з домішками крові, відрижкою, та іншими розладами травної системи.
- 4. Пацієнти повинні уникати вживання гострої їжі, алкогольних напоїв та припинити палити.
  - 5. Антацидні препарати дуже часто призначають для лікування гастриту.
- 6. Антацидні препарати дуже добре нейтралізують кисле середовище у шлунку і швидко знімають біль.
  - 7. Гастрит може проходити з підвищеною або зниженою кислотністю.
  - 8. Пацієнти можуть відчувати печію та здуття черевної порожнини.

Завдання для самостійної роботи студентів (СРС) Перекладіть наступні словосполучення:

I.

1. загрозлива для життя хвороба	
2. печія та здуття черевної порожнини	
3. ліки, що дозволені до продажу без рецепту	
4. розгорнутий аналіз крові	
5. злоякісна анемія	
6. вистилка шлунку	
7. зловживання алкоголю	
8. значне полегшення	
9. наслідки хвороби	
10. блювота з домішками крові	
II. Дайте відповідь на наступні питання:	
1. What is gastritis?	
2. What are the symptoms of gastritis?	
3. What are the causes of gastritis?	
4. How is gastritis treated?	
5. What is the diagnosis of gastritis based on?	
III. Дайте визначення: гастрит	
Test	
1. The stomach lining contains special cells that produce	
A) sputum B) acid and enzymes C) bacteria D) bile E) mucous	
2. NSAIDs can gastritis.	
A) Relieve B) contribute to C) cause D) treat E) aggravate	
3 causes are infection with bacteria, primarily H. pylori, chronic	c bile
reflux and stress.	
A) acute B) atrophic C) chronic D) gangrenous E) unchangeable	
4. Pernicious aneamia results when the body doesn't produce enough	
A) iron B) zink C) $B_6$ D) $B_{12}$ E) vitamin C	
5. Consumption of spicy food is contraindicated because it the m	ucosa
of the stomach.	
A) soothes B) irritates C) ruptures D)protects E)provoke	<u> </u>
6. can provide fast pain relief.	
A) antacids B) cytoprotective agents C) proton pump inhibitor	
D) antibiotics E) antiretroviral drugs	
7. inhibit the growth of bacteria.	
A) antacids B)cytoprotective agents C) proton pump inhibitor	
D) antibiotics E) vasodilators	
8 is an instrument inserted through the mouse to inspect the	nside
of the stomach.	
a) Gastroscope b) Gastrectomy c) Gastromalacia d) Gastralgi	a
e) Gastrotomy	
9. Gastritis appears the inflammation of the lining of the stomach.	

A) from B) to C) on D) in E) off

#### GASTRIC AND DUODENAL ULCERS

**Exercise 1. Topic vocabulary:** 

Exercise 1. Topic v		T
aggravate, v	['ægrəveɪt]	загострювати; посилювати;
		погіршувати
appetite, n	[ æpi'tait]	апетит
aspirin, n	['æsprin]	аспірин
belch, v	['beltʃ]	відрижка; відригувати
caffeine, n	['kæfi:n]	кофеїн
gnaw, v	['nɔ:]	палити
helicobacter pylori	[helikə'bæktə	гелікобактер пілорі
	paı'lə:raı]	
hydrochloric acid	['haɪdrəʊ' klɒrɪk 'æsɪd]	соляная кислота
ibuprofen, n	[aɪ ˈbjuːprəʊfən]	ібупрофен
lesion, n	[ˈlɪʒən]	пошкодження,
		ушкодження; ураження
pepsin, n	['pepsin]	пепсин
perforation, <i>n</i>	[ˌpɜ:fəˈreɪʃn]	порив, перфорація
peritonitis, n	[peritə'naıtıs]	запалення очеревини,
		перитоніт
recurrence, n	[' rı'kʌrəens]	повернення, повторення
sore, adj	['sɔ:]	болючий; запалений;
		виразка, рана
susceptible, adj	[' sə'septıbl]	вразливий; сприйнятливий
tarry stool	['tærı stu:1]	дьогтеподібний стул
ulcer, n	[ˈʌlsə]	виразка
vulnerable, adj	['vʌlnərəbəl]	уразливий
weaken, v	['wi:kən]	ослабляти

# Exercise 2. Give the Ukrainian equivalents to the given word-combinations:

A lesion on the skin, gastric ulcers, lifestyle factors, to cause a duodenal ulcer, stomach acids, the primary cause, to weaken the stomach protective mucosa, damaging effect of acid, to be more susceptible, the healing process, to contribute to ulcer recurrence, to stimulate acid secretion in the stomach, to aggravate the pain, heavy alcohol consumption, to be vulnerable to the harmful effects of acid, a burning pain, between the breastbone and the navel, belching and nausea, to avoid spicy foods, to reduce the amount of acid in the stomach, to prevent ulcers from recurring

**Exercise 3. Match the following terms with their definitions:** 

a) perforation	1. The enlarged muscular saclike part of the alimentary
	canal in which food is stored until it has been partially
	digested and rendered into chyme
b) stomach	2. The development or the act of perforating or the state of
	being perforated

c) helicobacter	3. A disintegration of the surface of the skin or a mucous
pylori	membrane resulting in an open sore that heals very slowly
d) tarry stools	4. The first part of the small intestine, between the stomach
	and the jejunum
e) ulcer	5 is a Gram-negative, microaerophilic bacterium found
	in the stomach, and may be present in other parts of the
	body, such as the eye.
f) duodenum	6. In medicine it refers to the black, "tarry" feces that are
	associated with upper gastrointestinal bleeding. The black
	color is caused by the hemoglobin in the blood being altered
	by digestive chemicals and intestinal bacteria.
g) pepsin	7. Expelling the wind from the stomach noisily through the
	mouth
h) belching	8. Pepsinogen a proteolytic enzyme produced in the stomach
	in the inactive form, which, when activated by acid, splits
	proteins into peptones

#### Exercise 4. Translate into Ukrainian paying attention to Grammar:

- 1. Some lifestyle factors are thought to cause ulcers.
- 2. Specific bacteria are considered to be the primary cause of gastric ulcers.
- 3. Gastritis is known to be an inflammatory process in the stomach.
- 4. Caffeine seems to aggravate the pain of an existing ulcer.
- 5. Heavy alcohol consumption is likely to play a role in the development of stomach or duodenal ulcers.
  - 6. Smoking is known to slow the healing process of ulcers.
  - 7. Complications are likely to be caused by profuse bleeding.
- 8. Some drugs proved to make the stomach vulnerable to the harmful effects of gastric acid.
  - 9. Emotional stress is no longer thought to be the primary cause of ulcers.
  - 10. Patients with duodenal ulcer were found to be too nervous.

# Exercise 5. Read the text and write out the key words: GASTRIC AND DUODENAL ULCERS

An ulcer is an open sore, or lesion, usually found on the skin or mucous membrane areas of the body. When the ulcer is in the stomach, it is called a gastric (peptic) ulcer. When the ulcer is in the duodenum, it is called a duodenal ulcer.

In the past lifestyle factors, such as stress and diet, were believed to cause ulcers. Later, researchers determined that stomach acids contributed to ulcer formation. Today, research shows that most ulcers (80 percent of gastric ulcers and 90 percent of duodenal ulcers) develop as a result of infection with a bacterium called Helicobacter pylori (H. pylori).

Although all three of these factors — lifestyle, stomach acid and H. pylori — are believed to play a role in ulcer development, H. pylori is considered to be the primary cause.

Factors suspected of playing a role in the development of stomach or duodenal ulcers are Helicobacter pylori, the bacteria producing substances that weaken the stomach's protective mucosa and make it more susceptible to the damaging effects of acid and pepsin.

Smoking. Smoking increases the chances of getting an ulcer, slows the healing process of existing ulcers, and contributes to ulcer recurrence.

Caffeine. Caffeine seems to stimulate acid secretion in the stomach, which can aggravate the pain of an existing ulcer

Alcohol. Ulcers are often linked to heavy alcohol consumption.

Stress. Although emotional stress is no longer thought to be a cause of ulcers, people with ulcers often report that emotional stress increases ulcer pain.

Acid and pepsin. The stomach's inability to defend itself against gastric acids - hydrochloric acid and pepsin - is believed to contribute to ulcer formation.

Non-steroidal anti-inflammatory drugs. These drugs (such as aspirin, ibuprofen and others) make the stomach vulnerable to the harmful effects of acid and pepsin.

The most common ulcer symptom is a gnawing or burning pain in the abdomen between the breastbone and the navel. The pain often occurs between meals and early in the morning. It may last from a few minutes to a few hours. Less common ulcer symptoms include belching, nausea, vomiting, bloody or dark tarry stools, poor appetite, loss of weight, malaise, and fatigue.

People with ulcers may experience serious complications. The most common problems include bleeding, perforation, narrowing and obstruction of intestinal opening, peritonitis.

Recommended treatment may include:

Lifestyle changes. People with ulcers should avoid spicy, fatty, or acidic foods. Smoking has been shown to delay ulcer healing and has been linked to ulcer recurrence; therefore, people with ulcers should not smoke.

Medications. Gastric and duodenal ulcers are treated with several types of medications to reduce the amount of acid in the stomach. When treating H. pylori, these medications are often used in combination with antibiotics.

Surgery. In most cases, anti-ulcer medicines heal ulcers quickly and effectively, and eradication of H. pylori prevents most ulcers from recurring. However, people who do not respond to medication or who develop complications may require surgery.

### Exercise 6. Complete the sentences and answer them:

- 1 What ulcers are called ...?
- 2 What lifestyle factors were believed ...?
- 3 What is the ... cause of ulcers?
- 4 How does H. pylori affect the stomach and cause ...?
- 5 Why does smoking play a role in ...?
- 6 ... increases ulcer pain?

- 7 What complications ...?
- 8 ... should people with ulcers avoid?
- 9 What types of medications ...?
- 10 When may a surgical operation ...?

# Exercise 7. Look through the text and find out expressions synonymic to the given ones:

The major cause, to make pain worse, bad effects, acid production, to decrease the amount of acid, alcohol intake, need the operation, hemorrhage, medicines for ulcer.

#### Exercise 8. What ulcer symptoms are described below?

- 1 the feeling of being about to vomit;
- 2 expelling wind from the stomach noisily through the mouth;
- a general feeling of being unwell;
- 4 the reflex action of ejecting the content of the stomach through the mouth;
  - 5 mental or physical tiredness;
  - 6 the creation of a hole in the intestines

#### Exercise 9. Fill in the table "Gastric and duodenal ulcers":

Definition	
Causes	
Symptoms	
Complications	
Treatment	

### **Exercise 10. Translate into your native language:**

### a) Make up the questions to the underlined parts of the sentences:

Case Presentation

Harold, a fifty-eight year old grocery store manager, had recently been waking up in the middle of the night with abdominal pain. This was happening several nights a week. He was also experiencing occasional discomfort in the middle of the afternoon. Harold decided to schedule an appointment with his physician.

The doctor listened as Harold described his symptoms and then asked Harold some questions. He noted that Harold's appetite had suffered as a result of the pain he was experiencing and as a result of the fear that what he was eating may be responsible for the pain. Otherwise, Harold seemed fine.

### b). Open the brackets:

The doctor (**to refer**) Harold to a physician that specialized in internal medicine and had Harold make an appointment for a procedure called an endoscopy. The endoscopy (**to perform**) at a hospital later that week. During the procedure, a long, thin tube (**to insert**) into Harold's mouth and directed into his digestive tract. The end of the tube was equipped with a light source and a small camera which (**to allow**) the doctor to observe the interior of Harold's stomach. The endoscope was also equipped with a small claw-like structure that the doctor (**can**) use in order to obtain a small tissue sample from the lining of Harold's stomach, if required.

The endoscopy (**to reveal**) that Harold (**to have**) a peptic ulcer. Analysis of a tissue sample taken from the site showed that Harold also (**to have**) an infection that was caused by *Helicobacter pylori* bacteria. The doctor who performed the endoscopy gave Harold prescriptions for two different antibiotics and a medication that (**to decrease**) the secretion of stomach acid. The doctor also (**to instruct**) Harold to schedule an appointment for another endoscopy procedure in 6 months.

#### **Exercise 11. Translate into English:**

Спіралевидна паличковидна грамнегативна бактерія; виразка шлунку; дуоденальна виразка; сприяти утворенню виразки; захисна слизова шлунку; вразливий до інфекції; дія пепсину та кислоти; рецидив виразки; процес загоювання; секреція кислоти; погіршувати біль; надмірне споживання алкоголю; нездптність захищатися; соляна кислота та пепсин; нестероїдні та противозапальні препарати; уразливий до шкідливої дії кислоти; тривати декілька годин; відчувати болісний ниючий та пекучий біль; затримувати процес загоювання; втрата ваги та апетиту; піддаватися лікуванню; ускладнення після перітоніту

#### **Exercise 12. Finish the sentence using Complex Subject:**

Gastric and duodenal ulcers are known ...

- а) спричиняються різними факторами;
- **b**) характеризуються ниючим або гострим болем у верхній частині живота;
  - с) призводять до внутрішнькровотечі;
  - **d**) часто розвиваються у курців;
  - е) часто пов'язані з надмірним вживанням алкоголю;
  - **f**) лікуються швидко та ефективно;
  - **g**) викликаютьнудоту, відрижку, блювання

### **Exercise 13. Change the sentences using Complex Subject:**

- 1. It is known that spring and autumn are those seasons when the patients with ulcer suffer from the recurrence of the disease.
- 2. It is considered that constant fatigue, the lesion of the nervous system and past diseases contribute to the onset of gastritis.
- 3. It has been found that gastric and duodenal ulcers develop more frequently in men than in women.
- 4. It is considered that too hot or too cold food contributes to the development of gastric disorders.
- 5. It is known that excessive amount of gastric acids causes irritation of the stomach mucosa.
  - 6. It was supposed that complications were caused by profuse haemorrhage.
  - 7. It is likely that the patient has obstruction of intestinal opening.
- 8. It is observed that in severe forms of gastritis acid secretion is completely reduced.

#### Exercise 14.\* Compose a case history of the patient with ulcer. Use the given expressions:

Patient B. was admitted ....

He/she complained of ...

On physical examination ...

Analyses of gastric juice ...

Stool tests ...

The endoscopic examination ...

The patient was administered ...

The course of the disease was ...

The patient was recommended ...

The patient was discharged ...

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення

- 1. спіралевидна паличковидна грамнегативна бактерія
- 2. виразка шлунку та дванадцятипалої кишки
- 3. сприяти рецидиву виразки
- 4. погіршувати біль в шлунку
- 5. надмірне споживання алкоголю
- 6. нестероїдні та противозапальні препарати
- 7. уразливий до шкідливої дії кислоти
- 8. відчувати болісний ниючий та пекучий біль
- 9. затримувати процес загоювання
- 10. піддаватися лікуванню

### **II.** Дайте відповідь на наступні питання:

- 1. What ulcers are called gastric duodenal and ulcers?
- 2. What lifestyle factors are believed to cause ulcers?
- 3. What is the primary cause of ulcer development?
- 4. What are the most common ulcer symptoms?
- 5. What should people with ulcers avoid?

### ІІІ. Розкрийте поняття: виразки

#### **TEST**

c)ocular

- 1. When the ulcer is in the stomach, it is called a ...ulcer.
- a)Gastric

2. Smoking ...

- a) speeds up the healing of ulcers
- b)facilitates the ulcer healing
- c)prevents ulcer recurrence

b)renal

d) decreases the chances of getting an ulcer

d)hepatic

- e)contributes to ulcer recurrence
- 3. The most common ulcer symptom is a ... pain in the abdomen between the breastbone and the navel.
  - a) gnawing
- b)pressing
- c) sharp
- d) irradiating
- e) boring

e)costal

a)	anti-inflan	nmatory	b) antibacte	erial c)	) antipyretic	
d)	antiemetic	e) ant	ti-ulcer			
5.	In most ca	ases, anti-ulc	er medicine	es heal ul	lcers	
a)	quickly	b) slowly	c) progress:	ively d	) spontaneously	e) suddenly
6.	Eradication	n of H. pylori	most ulce	ers from r	ecurring.	
a)	prevents	b) have prev	vented	c) preve	ent d) to preve	nt e) preventing
7.	Pain may.	a few minu	tes to a few	hours.		
a)	last from	b) last on	c) last out	d) last in	n e) last for	
8.	Constant f	atigue to th	ne onset of ga	astritis.		
a)	consider to	contribute	b) is consid	ler to cont	tribute c)	considered to
co	ntribute	d) co	nsiders to co	ntribute	e) to consid	der to contribute
9.	Factors s	suspected of	playing a	role in t	the developme	ent of stomach or
duod	enal ulcers	are				
a)	the Bacillu	ıs tetani	b) specific	organism	s bacilli diphthe	ria
c)	the Plasmo	odium malaria	e d) He	elicobact	ter pylori	
e)	the human	immunodefic	eiency virus			
10	). Stimulate	es acid secre	tion in the	stomach	can aggrav	ate the pain of an
existi	ng ulcer.					
a)	which	b) what	c) who	d) whom	n e) whose	

4. The treatment of ulcers includes.... medication.

#### **APPENDICITIS**

Exercise 1. Topic vocabulary:

alternate <i>adj</i>	[ɔ:l'tɜ:nɪt]	чергуватися, замінятися,
bloating <i>n</i>	[bləʊtiŋ]	здуття живота, метеоризм
burst v	[b3:st]	розриватися
complication n	[kəmpli'keiʃ(ə)n]	ускладнення
constipation <i>n</i>	[kənsti'peif(ə)n]	закреп
fecal debris n	['fi:k(ə)l] ['deɪbri:]	калові продукти відходу (залишки)
incision n	[in'siʒ(ə)n]	розріз, надріз;
lethargy <i>n</i>	[ˈleθədʒi]	летаргія, тривалий сон; млявість,
lump of feces <i>n</i>	[lʌmp əv ˈfiːsiːz]	калові маси
mortality <i>n</i>	[mɔ:'tæliti]	смертність
navel n	['neiv(ə)l]	пупок
obstruction n	[əb'strekʃ(ə)n]	закупорка
retention <i>n</i>	[rr'ten(t)J(s)n	затримка
rule out <i>v</i>	['ruːl 'aʊt]	виключати (можливість тощо)
rupture <i>n</i>	[reptsə]	розрив
tenderness n	['tendənis]	чутливість, хворобливість

# Exercise 2. Form the following new words and translate them into your native language:

*Model: translate - translation, establish - establishment* 

- -Y: bone, blood, health, sleep, taste, water, noise, dirt.
- -MENT: enlarge, impair, develop, achieve, treat, require, involve, measure.
- -TION: complicate, obstruct, constipate, inflame, operate, examine, observe, prevent.
  - -NESS: weak, deaf, ill, red, tired, restless, tender.

### Exercise 3. Form the new nouns with the meaning "inflammation".

Model: appendix – appendicitis

Retina, sinus, esophagus, parodont, meninges, pulp, bronchus, myocardium, gingiva, thyroid, conjunctiva.

### Exercise 4. Read and translate the following sentences:

### 1. Retention – затримка

The retention of urine is one of the clinical manifestations of a kidney disease.

### 2. Mortality – смертність

In untreated cases, mortality is high because of the risk of rupture leading to peritonitis.

### 3. Tenderness – хворобливість

The patient complained of a moderate tenderness on palpation.

#### 4. Remove – видаляти

The surgeon removed the tumor which had involved the stomach.

### 5. Rupture – розрив

The laboratory analysis failed to reveal rupture of the appendix.

#### 6. Obstruction – закупорка

The stone in the bile ducts caused the obstruction of bile flow.

#### 7. Bloating - здуття живота, метеоризм

The patient was admitted to the reception ward with bloating and nausea.

#### 8. Constipation – закреп

It was very difficult for the physician to make a correct diagnosis as the constipation was from time to time alternating with diarrhea.

#### **Exercise 5. Read and translate the following word-combinations:**

A narrow, finger-shaped organ, high rate of mortality, to spill fecal material, obstruction of the appendix, abdominal cavity's lining, a lump of feces, fecal debris, deep breathing in and coughing, constipation, nausea and vomiting, retention of gases, swelling and bloating, the appearance of complications.

# Exercise 6. Read and translate the text: APPENDICITIS

Appendicitis is inflammation of the appendix, the narrow, finger-shaped organ that branches off the first part of the large intestine on the right side of the abdomen. Appendicitis may be acute or chronic.

Acute appendicitis is the most common reason for abdominal surgery in the world. If it is not treated promptly, the inflamed appendix may burst, spilling fecal material into the abdominal cavity. The usual result is a life-threatening infection of the abdominal cavity's lining (the peritoneum) that is peritonitis - a serious inflammation with rather high rate of mortality unless it is treated quickly with strong antibiotics.

Appendicitis is caused by obstruction of the appendix. The appendix may become obstructed by a lump of feces, calcium salts and fecal debris or tumors, leading to inflammation and infection.

Acute appendicitis is known to begin with vague discomfort or tenderness near the navel (early in an attack) or suddenly with sharp pain which is at first felt in epigastrium but then becomes generalized in the abdomen. The pain becomes worse on movement, deep breathing in and coughing, it does not radiate but is accompanied by constipation, nausea and vomiting, retention of gases, possibly alternating with diarrhea. The temperature is normal or subfebrile. A high fever (possibly accompanied by chills) may indicate an abscessed appendix. Abdominal swelling or bloating, especially in infants may be occasionally observed.

Diagnosis of an acute appendicitis is based on patient history (symptoms) and physical examination. Physical examination is necessary to rule out other disorders that produce symptoms similar to those of appendicitis.

- A rectal examination may be performed.
- Blood and urine samples should be taken for analysis.
- CT (computed tomography) scan or an abdominal x-ray may be necessary.

Chronic appendicitis may appear with mild abdominal tenderness, pain, and malaise or lethargy. Often, individuals with chronic appendicitis are undiagnosed until

an acute episode of appendicitis occurs. Diagnosing chronic appendicitis can be difficult because the symptoms can be similar to those occurring with other conditions, including gastrointestinal disorders such as constipation or diarrhea.

The treatment of an acute appendicitis is surgical. The surgical procedure for the removal of the appendix is called an appendicectomy.

Laparotomy is the traditional type of surgery used for treating appendicitis. This procedure consists in the removal of the infected appendix through a single larger incision in the lower right area of the abdomen. The incision in a laparotomy is usually 51 to 76 mm long. This type of surgery is used also for visualizing and examining structures inside the abdominal cavity.

A traditional appendectomy is performed under general anesthesia. The entire procedure should not last longer than an hour if complications do not occur.

The newer method to treat appendicitis is the laparoscopic surgery. This surgical procedure consists of making three to four incisions in the abdomen, each 6.4 to 12.7 mm long. This type of appendectomy is made by inserting a special surgical tool called laparoscope into one of the incisions. The laparoscope is connected to a monitor outside the patient's body and helps the surgeon to inspect the infected area in the abdomen. The other two incisions are made for the specific removal of the appendix by using surgical instruments. Laparoscopic surgery also requires general anesthesia and it can last up to two hours.

Full recovery from appendectomies takes about four to six weeks, but can be prolonged to up to eight weeks in case of the appearance of complications, such as the rupture of the appendix.

#### **Exercise 7 Answer the following questions:**

- 1. What is appendix?
- 2. What is the cause of appendicitis?
- 3. What types of appendicitis are there?
- 4. What are the manifestations of acute appendicitis?
- 5. What is the difference of acute and chronic appendicitis?
- 6. Why is it difficult to make a diagnosis of chronic appendicitis?
- 7. What complications can occur in case of untreated acute appendicitis?
- 8. How can acute appendicitis be treated?
- 9. How can acute appendicitis be diagnosed?
- 10. What is the difference in laparotomy and laparoscopy?

# Exercise 8. Match the following Ukrainian words and word combinations with the English ones:

1. the appearance of complications	а. закупорка апендиксу
2. full recovery	b. вистилка черевної порожнини
3. incision in the abdomen	с. проводити операцію
4. obstruction of the appendix	d. розріз у черевної порожнині
5. to begin with tenderness	е. супроводжуватися закрепом
6. a life-threatening infection	f. високий рівень смертності
7. to perform the operation	g. починатися з хворобливістю

8. abdominal cavity's lining	h. повне одужання
9. high rate of mortality	і. виникнення ускладнення
10. to be accompanied by constipation	ј. загрозлива для життя хвороба

#### Exercise 9. Say whether the sentences are true or false:

- 1. Appendicitis can be of acute and chronic form.
- 2. Laparoscopy consists of the removal of the appendix through one incision in the lower left part of the abdominal cavity.
  - 3. Acute appendicitis begins with pains in substernal area.
  - 4. The pain is accompanied by fever, perspiration and discharge of sputum.
  - 5. An acute appendicitis is treated with antibiotics.
  - 6. The rupture of appendix can lead to the infection of the peritoneum.
  - 7. It is difficult to diagnose chronic appendicitis because symptoms are vague.
- 8. A high fever in acute appendicitis may indicate inflammation of the abdominal cavity's lining.

**Exercise X. Match the following terms with their definition:** 

Exercise 11. Wheten the following terms with their definition.			
1. Gastritis	a. a condition in which there is difficulty in emptying the bowels,		
	usually associated with hardened faeces		
2. Constipation	b. a tube-shaped sac attached to and opening into the lower end of		
	the large intestine		
3. Diarrhea	c. a feeling of sickness with an inclination to vomit		
4. Appendix	d. the serous membrane lining the cavity of the abdomen and		
	covering the abdominal organs		
5. Peritoneum	e. a condition in which feces are discharged from the bowels		
	frequently and in a liquid form		
6. Nausea	f. is an inflammation of thin tissue that lines the inner wall of the		
	abdomen and covers most of the abdominal organs.		
7. Peritonitis	g. An inflammation of the stomach lining (mucosa)		

# Exercise 11. Translate the words given in italics into English. Translate the whole sentences into your native language:

- 1. The patient complained of the pain that супроводжувалася нудотою.
- 2. *3akpen* was relieved with the administration of laxatives.
- 3. The operation on acute appendicitis *проводилася* under *загальна* aneasthesia.
- 4.  $3a\kappa ynop\kappa a$  of the appendix lumen was the cause of nausea, pains and vomiting.
  - 5. The surgeon видалив the appendix to prevent its *розрив*.
  - 6. Suppurative appendicitis may cause ускладнення such as peritonitis.
- 7.Peritonitis is загрозлива для життя інфекція with високим рівнем смертності.
- 8. Acute appendicitis usually *починається з хворобливістю* in the abdominal cavity.

### Exercise 12. Put the words from the box instead of synonyms in the sentences:

Tenderness, obstruction, rupture, mortality, constipation, vomiting, nausea, recovery

- 1. The *blockage* of the appendix lumen caused unbearable pains and fever.
- 2. Cardiovascular diseases are one of the leading factors of *deaths* in the world nowadays.
  - 3. The disease is accompanied by severe *soreness* in the abdominal cavity.
- 4. One of the most frequent complications of an acute appendicitis can be the *burst* of appendix that can lead to peritonitis.
  - 5. Retention of feces is one of the symptoms of acute appendicitis.
  - 6. The patient with indigestion complained of *retching* and diarrhea.
- 7. *Sickness* can be a side effect of many medications including cancer chemotherapy, or morning sickness in early pregnancy.
- 8. Full *convalescence* of acute appendicitis can occur after four six weeks of treatment.

#### Exercise 13. Read and translate paying attention to modal verbs:

- 1. The environment must be provided with the proper amount of oxygen for the growth of aerobic microorganisms.
- 2. The doctor ought not to have told him that the disease is incurable. He should have encouraged him.
- 3. The doctor had to palpate the patient's abdomen and make an abdominal X-ray to exclude the possible diagnosis of an acute appendicitis.
- 4. The students may watch the operation on acute appendicitis in practical classes.
- 5. Appendicitis in this patient must have resulted from obstruction of the appendix with a tumour.
- 6. Everyone should remember that most viruses are destroyed at the temperature 500-600 within 30-60 minutes.
- 7. Acute appendicitis should be treated surgically either by laparotomy or laparascopy.
- 8. Fat-soluble vitamins can be stored for long periods of time in the body's fatty tissue and the liver.

### Exercise 14. Fill in the blanks with suitable modal verbs in a proper form and translate the text:

At about 2 o'clock in the cold winter morning a man telephoned a doctor and asked him if he ..... come at once. "You .... hurry", he said. The doctor .... drive 7 miles to this call. When he reached the place, the man who had called him in said: "Doc, I ..... strained myself (втомився). I haven't got any pain or anything, but I have a terrible feeling that I .... die soon." The doctor examined the patient, felt his pulse and took the temperature. "Have you made your will? (заповіт) he asked at last. – Why, no, doctor." The man looked frightened. – You ... done it long ago," said the doctor. "Have you got a family?" – "Yes" said the patient. – "You .... send for them immediately. And your parents ..... be called too." – "Do you really think

I'm going to die?" – "No, I don't" replied the doctor. "But I don't want to be the only one whom you made fool of that night."

# Exercise 15. Translate into English the parts of the sentences given in brackets using modal verbs:

- 1. The ambulance (змогла дістатися) to the hospital within 10 minutes despite a traffic jam.
- 2. I don't remember that I saw such symptoms and so I (не зможу) help you in making a diagnosis.
- 3. Full recovery from appendectomies (може відбутися) after 4 to 6 weeks of treatment.
- 4. I'll write you the prescription that you (слід дотримуватися) to achieve full recovery.
  - 5. I suppose that this medicine (повинно допомогти).
  - 6. (Нема чого хвилюватися). The operation was performed successfully.
- 7. He has a scar in the lower right area of the abdomen. He (можливо зробили) laparotomy.
- 8. You (не слід) get out of bed before the doctor allows you to do it as the stitches (можуть) not hold.

#### Exercise 16. Put questions to the underlined members of sentences:

- 1. Acute appendicitis is due to the obstruction of the appendix with fecal debris.
- 2. The rupture of appendicitis may cause peritonitis.
- 3. Treatment of acute appendicitis consists of <u>surgical intervention</u>.
- 4. There may be <u>no acute</u> symptom of chronic appendicitis at all.
- 5. Anorexia is commonly noted <u>early in the morning</u>.
- 6. The patient with ruptured appendix will be operated immediately.
- 7.<u>On admission to the hospital</u> the patient complained of a severe pain in epigastrium.
  - 8. <u>Cases of appendicitis</u> have been noted even in infants.

### Exercise 17. Open the brackets and put the verbs in a correct tense:

- 1. The surgeon (to perform) this operation from 10 till 11 o'clock.
- 2. Two hours ago, a patient with acute pains (to bring) to the reception ward.
- 3. Eye drops may (to use) for the prevention of ocular infection.
- 4. The patients (to examine) by a doctor in charge now.
- 5. If the patient has TB bacilli in the sputum, he (to stay) in the hospital for six or eight months.
- 6. The patient cannot be discharged from the hospital because he not (to recover) yet.
  - 7. When we came, the solution (to boil) in the water-heater system.
  - 8. After the injection, given an hour ago, the patient (to feel) much better.

#### **Exercise 18. Translate into English:**

1. Гострий апендицит — одне з найпоширеніших гострих хірургічних захворювань органів черевної порожнини.

- 2. Найчастіше гострий апендицит викликається обструкцією червоподібного відростка каловими камінням.
- 3. Для правильної діагностики гострого апендициту лікар зобов'язаний провести ретельне обстеження хворого.
- 4. Початок хвороби характеризується тупим ниючим болем у правій здухвинній ділянці.
  - 5. Основний тип лікування гострого апендициту є хірургічне втручання.
- 6. Перитоніт (запалення очеревини) виникає при некрозі та перфорації в стінці червоподібного відростка, з наступним витіканням кишкового вмісту в вільну черевну порожнину.
- 7. Апендикулярний абсцес— виникає коли відбувається локалізація процесу, тобто запалення обмежується лише зоною відростка та прилягаючими тканинами.
- 8. Після видалення червоподібного відростка його функцію на себе беруть інші органи шлунково-кишкового тракту, що дозволяє організму людини повноцінно функціонувати.

#### Завдання для самостійної роботи студентів

#### І. Перекладіть словосполучення на англійську мову:

- 1. закупорка апендиксу
- 2. супроводжуватися закрепом
- 3. повне одужання
- 4. розрив апендиксу
- 5. загрозлива для життя хвороба
- 6. вздуття та нудота
- 7. вистилка черевної порожнини
- 8. високий рівень смертності
- 9. ускладнення хвороби
- 10. хворобливість у пупковій зоні

### II. Дайте відповідь на наступні питання:

- 1. What is appendix?
- 2. What is the cause of appendicitis?
- 3. What are the manifestations of acute appendicitis?
- 4. Why is it difficult to make a diagnosis of chronic appendicitis?
- 5. What complications can occur in case of untreated acute appendicitis?

#### ІІІ. Дайте визначення: апендицит

#### Test

1650					
1. Appendicitis is a condition characterized by					
A) inflammation of the stomach B) inflammation of the appendix					
C) ulcers in appendix D) infection of the peritoneum E) Adhesions in appendix					
2. Mortality is high because of the risk of rupture leading to					
A) Gastritis B) peritonitis C) angina pectoris					
D) tumours E) lung abscess					
3. Suppurative appendicitis may lead to complications such as					

A) Gastric ulcer	B) rupture, a	abscess	C) tumour
D) pyelonephritis	E) nephritis		
4. Acute appendicitis is	treated		
A) by antibiotics	B) sur	rgically	C) by sulfanilamides
D) by antipyretics E)	by homoeopath	У	
5. Acute appendicitis se	ems to be the en	d result of.	
A) erosions in the appear	ndix mucosa	B)	obstruction of the appendix
lumen C) inflammation	on of the intestin	es D) in	nflammation of the peritoneum
E) inflammation of the	bile ducts		
	-	-	which may result in
A) Pyelonephritis	• •	ritonitis	C) nephrolithiasis
D) gastritis E) urose	•		
7. The pain in acute app			
A) Diarrhea, belch	ning B) na	usea, retenti	ion of stools and gases
B) vomiting, heartburn			
8. The appendix may be		~	
· ·	-	<i>'</i>	D) calculus E) food debris
9. Symptoms of acute a	* *		
			cute pains, nausea, retention of
gases C) diarrhea, hi			ng and sneezing
E) pains, mucopurulent	-	_	
10. Full recovery f			
A) 4 to 6 weeks B)	-	C) no mor	e than 3 weeks
D) a month E)	about 10 days		

#### **CHOLECYSTITIS**

#### **Exercise 1. Learn the new words:**

Advent, <i>n</i>	['ædvənt]	поява
Cholelithiasis, n	[,k⊐ləliθi'eisis]	жовчокам'яна хвороба
Correlate, v	[ˈkᠴrilait]	бути у співвідношенні
Disability, <i>n</i>	[,disə'biliti]	непрацездатність
Incision. <i>n</i>	[in'siʒ(ə)n]	надріз
Irritate. <i>v</i>	['iriteit]	дратувати

#### Exercise 2. a)Read the following word-combinations and translate them:

**Treatment:** emergency treatment, effective treatment, immediate treatment, inpatient treatment, long-term treatment

**Diagnosis**: correct diagnosis; definite diagnosis; delayed diagnosis, initial diagnosis

**Inflammation**: severe inflammation; painful inflammation; acute inflammation; to reduce inflammation; signs of inflammation

**Substance:** dangerous substance; harmful substance; toxic substance; pure substance; soluble substance

#### b) Make up short sentences using the above given word combinations:

#### **Exercise 3. Translate the following word-combinations:**

Obstruction of the cystic duct; accumulation of bile; swelling of the gallbladder; normal blood flow; insufficient oxygen; delayed diagnosis; morbidity and mortality; intense pain; umbilical area; tender and distended; cold perspiration; severe tenderness; irritation of the peritoneum; slight jaundice of sclerae; greasy, fatty, or fried foods; to result from the effect of toxic substances; several small incisions; surgical site infection

# Exercise 4. Read and translate the text: CHOLECYSTITIS

Cholecystitis (Greek, -cholecyst, "gallbladder", combined with the suffix -itis, "inflammation") is inflammation of the gallbladder, which occurs most commonly due to gallstones (cholelithiasis). Blockage of the cystic duct with gallstones causes accumulation of bile in the gallbladder and increased pressure within the gallbladder. Concentrated bile, pressure, and sometimes bacterial infection irritate and damage the gallbladder wall, causing inflammation. Inflammation and swelling of the gallbladder can be reduced to areas of the gallbladder, which can lead to cell death. The main forms of cholecystitis are the following: catarrhal, purulent and gangrenous.

Risk factors for cholelithiasis and cholecystitis are similar and include increasing age, female sex, pregnancy, certain medications, obesity, and rapid weight loss. Females are twice as likely to develop cholecystitis as males. Uncomplicated cholecystitis has an excellent prognosis; however, more than 25% of patients require surgery or develop complications. Complications of acute cholecystitis increases morbidity and mortality. The patient with cholecystitis is known to complain of intense pain, localized in the right hypochondrium and in the umbilical area

The gallbladder may be tender and distended. During the attack of pain the face is moist with cold perspiration, the skin is pale, and the tongue and lips are dry. Even a slight palpation reveals severe tenderness due to irritation of the peritoneum. Approximately in 50% of cases there is slight jaundice of sclerae. The pain grows much worse when the patient is lying on his right side. It may also correlate with eating greasy, fatty, or fried foods. Diarrhea, vomiting, and nausea are common.

The chemical blood analysis is known to reveal some changes; they result from the effect of toxic substances in the liver. For most patients diagnosed with acute cholecystitis, the definitive treatment is surgical removal of the gallbladder, cholecystectomy.

Purulent form of cholecystitis is highly dangerous to life and requires an emergency operation. An even more severe course is observed in gangrenous cholecystitis. Recovery is achieved by surgical treatment, it being followed by prolonged antibiotic therapy and chemotherapy.

Since the advent of laparoscopic surgery in the early 1990s, laparoscopic cholecystectomy has become the treatment of choice for acute cholecystitis. Laparoscopic cholecystectomy is performed using several small incisions located at various points across the abdomen. Several studies have demonstrated the superiority of laparoscopic cholecystectomy when compared to open cholecystectomy. Patient undergoing laparoscopic surgery report less incisional pain postoperatively as well as fewer long - term complications and less disability following the surgery. Additionally, laparoscopic surgery is associated with a lower rate of surgical site infection.

#### **Exercise 5. Answer the questions to the text:**

- 1. What is cholecystitis?
- 2. What are the main forms of cholecystitis?
- 3. What are the manifestations of cholecystitis?
- 4. Where is the pain localized in attack of cholecystitis?
- 5. When does the pain grow worse in acute cholecystitis?
- 6. Where can the pain irradiate in case of acute cholecystitis?

### **Exercise 6.Memorize the meaning of the following term-elements:**

**Chole-** [kzli] - combining form of Greek origin denoting **bile** 

Hepato- [hepat⊃] - combing form of Greek origin denoting liver

Read the definition and fill in the blanks with the words given in brackets:

Hepatology, hepatitis, hepatoblastoma, hepatoma, hepatologist, hepatopathy, hepatomegaly, hepatogenous, cholecystitis, cholecyst, cholecystectomy, cholecystopathy, cholecystotomy, cholecystography

- 1. A malignant tumour of the liver in newborns or children
- 2. A specialist in liver diseases
- 3. Any disease of the liver
- 4. The scientific study about liver diseases ....
- 5. Gallbladder ... .
- 6. A malignant tumour of the liver
- 7. Inflammation of the gallbladder

- 8. The surgical cutting (incision) of the gallbladder
- 9. Surgical removal of the gall-bladder
- 10. Any disease of the gallbladder
- 11. Originating in the liver
- 12. An abnormal enlargement of the liver caused by congestion, inflammation, or a tumour
- 13 .Inflammation of the gallbladder, characterized by fever, jaundice and weakness
  - 14.Radiography of the gallbladder after administration of a contrast medium

**Exercise 7.Match the explanations with the terms:** 

		cromp with the		
1. A condition in which bowel evacuations			a. inflammatio	n
occur infrequently	and cause diffi	culty or pain.		
2. A yellowing	of the skin or	whites of the	b. gall-bladder	
eyes, indicating ex	cess bilirubin in	n the blood.		
3. The process of	f examining pa	art of the body	c. constipation	
by careful feeling	with the hands	or fingertips		
4. A pear-shaped	sac lying under	meath the right	d. palpation	
lobe of the liver, ir	n which bile is s			
5. The body's res	ponse to injury,	e. jaundice		
acute or chronic.	It is characte			
signs: swelling,	pain, redness,			
dysfunction				
1	2	3	4	5

# Exercise 8. Find the corresponding equivalents; memorize the meanings of these word combinations:

Місце хірургічної інфекції, невелика жовтяниця склер, біль в розрізі, пупкова область, сальні, жирні або смажені продукти, накопичення жовчі, швидка втрата ваги, недолік кисню, сильний біль, сильна хворобливість.

# Exercise 9. Translate the sentences paying attention to the construction Complex subject:

- 1. This diet seems to be good for the patients and should be recommended.
- 2. The basic mode of action is thought to be the same.
- 3. An ECG-based diagnosis may prove to be extremely difficult in patients with re-infarction.
- 4. A new imaging system is expected to give radiology additional information to guide biopsy recommendation.
- 5. Coronary patients are established to be at an increased risk of cardiac infarction.
  - 6. Environmental factors are known to of significance.
  - 7. Additional studies are required to determine the precise role of protein.
  - 8. Sometimes pain is observed to appear suddenly in quite healthy persons.

- 9. The chemical blood analysis is known to reveal some changes, they resulting from the effect of toxic substances in the liver.
  - 10. This phenomenon has been found to have a wide occurrence.

# Exercise 10. Use the verbs in brackets in the appropriate tense of the Indefinite group. Translate the sentences:

- 1. Products of protein, fat, and carbohydrate digestion (to be absorbed) from the gastrointestinal tract by the liver in which they (to undergo) further chemical processes.
- 2. The liver (to destroy) toxic substances which usually (to be formed) in the intestinal tract as well as some poisons which (to enter) the body from without.
- 3. Jaundice (to be known) to be the disease which (to be due to) the presence of a large amount of bilirubin in the blood and tissues.

# Exercise 11. Choose the appropriate form of the Infinitive. Translate the sentences:

- 1. The patient was known ... stool retention accompanied by nausea a month before his present admission to the hospital. (a) to have; b) to have had; c) to be having)
- 2. Sensitivity to antibiotics was reported ... not only in this patient but in all the other members of the family as well since their early age. (a) to be present; b) to have been present)
- 3. Prophylactic vaccination was found ... since no cases of hepatitis were diagnosed after its administration. (a) to be effective; b) to have been effective)
- 4. Skin irritation was revealed ... after each parenteral administration of this preparation. (a) to occur; b) to have occurred; c) to be occurring)

#### **Exercise12. Put questions to the underlined words:**

- 1. Hydrochloric acid is greatly diminished or absent <u>in untreated cases of chronic gastritis.</u>
  - 2. <u>Cases of appendicitis</u> have been noted even in infants.
  - 3. Tuberculosis may affect not only the lungs but also other organs.
  - 4. The pain often occurs between meals and early in the morning.
  - 5. Blood pressure involves two measurements.
  - 6. The blood analysis revealed moderate leucocytosis and an elevated ESR.
  - 7. People with ulcers may experience serious complications.
- 8. The bacterium produces substances that weaken the stomach's protective mucosa.
  - 9. Symptoms vary with the severity of the inflammation.
- 10. On admission to the hospital the patient complained of a severe pain in the epigastrium.

### **Exercise 13. Translate into English:**

1. Причинами виникнення холециститу  $\epsilon$  ураження різними

інфекційними хворобами.

- 2. Останнім часом виникнення холециститу пов'язують також з вірусною природою (внаслідок вірусного гепатиту).
- 3. Сприяють виникненню холециститу застій жовчі в жовчному міхурі, наявність жовчних каменів, дискінезія жовчних шляхів, яка виникає під впливом стресових станів і негативних емоцій, розладнання функцій ендокринної, центральної і вегетативної нервових систем.
- 4. Велику роль у цієї хвороби відіграють переїдання, особливо жирної їжі, надмірна маса тіла, гіподинамія, шкідливі звички: споживання алкоголю, куріння
- 5. Виділяють гострий і хронічний холецистит, які важко піддаються лікуванню.
- 6. Холецистит часто ускладнюється запаленням жовчних шляхів (холенгітом), іноді запаленням підшлункової залози (панкреатитом).
- 7. Основні ознаки гострого холециститу: нападоподібні болі в правій половині живота, що іррадіюють в праве плече, лопатку; нудота і блювота; озноб і підвищення температури тіла; можливі жовтяниця і свербіння шкірного покриву.
  - 8. Небезпечне ускладнення холециститу— перитоніт.

#### **NEPHRITIS**

Exercise 1. Topic vocabulary:

comprise of, v	[kəmp'raiz]	складати
encourage, v	[in'kʌridʒ]	сприяти
glomerulus, n	[glə'merələs]	гломерула
lupus, n	[lu:pəs]	вовчак
sophisticated, adj	[səfisti'keitid]	складний
tubule, n	['tju:bju:1]	трубочка
quarts, n	[kw]	кварта (1,13 л)

Exercise 2. Read the abstract and remember the main information about kidneys. Fill in the gaps with appropriate words from the table:

surrounded by, third lumbar vertebrae, a tough, fibrous, the urinary system, connective renal capsule, filter blood, lies

Exercise 3. Match the following Ukrainian word combinations with their English equivalents:

1. печіння під час сечовипускання	a. to pass out of the body through the	
	urethra	
2. складна система видалення відходів	b. to remove waste products and excess	
	water	
3. низький рівень калію в крові	c. a burning sensation while urinating	
4. видаляти шлаки і зайву воду	d. cloudy urine with blood or pus	
5. простір між нирковими канальцями	e. a sophisticated waste removal system	
6. виходити з організму через сечівник	f. low potassium in your blood	
7. сприяти інфекції	g. spaces between the renal tubules	
8. каламутна сеча з кров'ю чи гноєм	h. to encourage an infection	

# Exercise 4. Read and translate the text: NEPHRITIS

Kidneys are our body's filters which are a sophisticated waste removal system comprised of two bean-shaped organs. Every day our hard working kidneys process 200 quarts of blood and remove two quarts of waste products and excess water. If the kidneys suddenly become inflamed, there will develop a condition called acute nephritis. Acute nephritis has several causes and can lead to kidney failure.

There are several types of acute nephritis. They are:

#### **Interstitial Nephritis**

In interstitial nephritis, the spaces between the renal tubules that form urine become inflamed. The kidneys swell from the inflammation. This type is often caused by an allergic reaction to a medication or antibiotic. An allergic reaction is the body's immediate response to a foreign substance.

Other causes include the following: having low potassium in your blood (potassium is a mineral that helps regulate many functions in the body, including metabolism); taking medications for long periods of time may damage the tissues of the kidneys.

#### **Pyelonephritis**

Pyelonephritis is an infection in the bladder that travels up the ureters and spreads into the kidneys. Ureters are two tubes that transport urine from each kidney to the bladder, the muscular organ that holds urine until it passes out of the body through the urethra. The majority of pyelonephritis infections occur from the bacteria Escherichia coli, which is found in the intestine.

Although bacterial infections are the leading causes of pyelonephritis, there are other possible causes: urinary examinations that use a cystoscope (an instrument that looks inside the bladder); surgery on the bladder, kidneys, or ureters; the formation of kidney stones.

#### Glomerulonephritis

This type of acute nephritis produces inflammation in the glomeruli. Glomeruli are the tiny capillaries that transport blood and behave as filtering units. Damaged and inflamed glomeruli may not filter the blood properly.

The main cause of this type of kidney infection is unknown. However, some conditions may encourage an infection: having problems in the immune system; having a history of cancer; having an abscess that breaks and travels to your kidneys through your blood circulation.

Certain people are at greater risk for acute nephritis. The risk factors include: a family history of kidney disease and infection; having an immune system disease, such as lupus; taking too many antibiotics or pain medications; recent surgery in the urinary tract.

The symptoms will vary depending on the type of acute nephritis the patient has. The most common symptoms for all three types of acute nephritis are: pain in the pelvis, pain or a burning sensation while urinating, frequent need to urinate, cloudy urine, blood or pus may be present in urine, pain in the kidney area and/or abdomen, swelling in the body, commonly in the face, legs, and feet, vomiting, fever, high blood pressure.

Various diagnostic tests may be needed to confirm a case of acute nephritis. These tests include the following: a biopsy of the kidneys (a biopsy is a small tissue sample taken from an organ and examined in a laboratory setting); urine and blood testing (these tests detect location of bacteria and signs of infection); a CT scan may be used to take pictures of your pelvis and abdomen.

Antibiotics and pain relievers may be used if a patient has pyelonephritis. If high blood pressure is present, the patient may need calcium channel blockers. Corticosteroids or other immune suppressing medications may also be administered.

#### **Exercise 5. Answer the questions:**

- 1. What is the role of kidneys in the human body?
- 2. What happens when the kidneys inflame?
- 3. How many types of acute nephritis are there?
- 4. Give brief information for all types of acute nephritis (general characteristics, causes).
  - 5. Name the risk factors for acute nephritis.
  - 6. List the most common symptoms for all three types of nephritis.
  - 7. What diagnostic tests may be needed to confirm a case of acute nephritis?
  - 8. What medications may be administered to patients with acute nephritis?

#### **Exercise 6. Translate the word combinations into English:**

To be comprised of two bean-shaped organs; to lead to kidney failure; to swell from the inflammation; response to a foreign substance; to travel up the ureters; to pass out of the body through the urethra; formation of kidney stones; to behave as filtering units; an immune system disease, such as lupus; pain in the pelvis; cloudy urine with blood or pus; to confirm a case of acute nephritis.

#### **Exercise 7. Match the following terms with their definitions:**

Exercise 7. Match the following terms with their definitions.				
1. fever	a. excreting urine			
2. urination	b. a very large group of microorganisms comprising			
	one of the three domains of living organisms			
3. bacteria	c. an abnormally high body temperature accompanied			
	by fast pulse rate, dry skin etc.			
4. pyelonephritis	d. hard rock-like formations consisting of minerals and			
	other waste material			
5. kidney stones	e. any manipulation of the body or one of its organs to			
	repair damage, arrest the progress of disease, remove			
	foreign matter			
6. operation	f. inflammation of the kidney and renal pelvis			
7. colic	g. a condition characterized by acute spasmodic			
	abdominal pain			

#### **Exercise 8. Insert the necessary preposition:**

until, or, on, although, into, to, of, in, than	
until, or, on, attribugh, mto, to, or, m, than	

The treatment of nephritis depends ... the type and cause of the condition. The aim is to reduce inflammation, limit the damage ... the kidneys and support the body ... kidney function is back to normal. Limitation ... sodium (salt), potassium, protein and fluids ... the diet may be necessary. Sometimes bed rest is advised. Steroids or more powerful immunosuppresants may be given to reduce the inflammation.

Antibiotics may sometimes also be needed. Certain medications may also be needed to control blood pressure. In severe cases, renal dialysis may be necessary, ... this may only be a temporary measure. Adults are slower to recover ... children and more likely to develop complications or progress ... chronic nephritis. Acute nephritic syndrome is unlikely to ruccur but if it does the person may require permanent dialysis ... a kidney transplant.

#### **Exercise 9. Translate the words in italics into English:**

- 1. Kidneys are our body's filters which are *складна система видалення відходів* comprised of two bean-shaped organs.
- 2. If the kidneys suddenly *запалюються*, there will develop a condition called acute nephritis.
- 3. In interstitial nephritis, *простір між нирковими канальцями* that form urine become inflamed.
- 4. The majority of pyelonephritis infections occur from the bacteria Escherichia coli, яка знаходиться в кишківнику.
  - 5. Пошкоджені або запалені гломерули may not filter the blood properly.
- 6. The most common symptoms for all three types of acute nephritis are кров та гній in urine, набряк по тілу, commonly in the face, legs, and feet, блювота, fever, high blood pressure.

#### Exercise 10. Fill in the gaps using the words from the box:

urinary, bladder, kidneys, reabsorption, renin, acid-base balance (кислотнолужний баланс), ammonium, retroperitoneum (заочеревиний простір), excrete, renal, urine, ureter

The ... are paired organs which have the production of ... as their primary function. Kidneys are seen in many types of animals including vertebrates and some invertebrates (безхребетні). They are part of the ... system but have several secondary functions concerned with homeostatic functions. These include the regulation of electrolytes, ..., and blood pressure. In producing urine the kidneys ... wastes such as urea and ...; the kidneys are also responsible for the ... of glucose and amino acids. Finally, the kidnyes are important in the production of hormones including vitamin D, ... and erythropoietin.

Located behind the abdominal cavity in the ..., the kidneys receive blood from the paired renal arteries, and drain into the paired ... veins. Each kidney excretes urine into a ... itself, a paired structure that empties into the urinary ....

### **Exercise 11. Translate the following sentences into English:**

- 1. Маса нирки складає приблизно 120-200г.
- 2. Зазвичай права нирка дещо менша від лівої.
- 3. Нирка вкрита оболонкою, яка називається фіброзна капсула.
- 4. Нирка має бобоподібну форму.
- 5. Ниркова артерія, ниркова вена, лімфатичні судини та нерви проходять крізь нирки.
  - 6. Сечові канальці утворюють більшу частину нирки.

- 7. Окрім виділення, нирки відіграють важливу роль залоз внутрішньої секреції.
  - 8. Сечовий міхур тимчасовий резервуар для зберігання сечі.
  - 9. Скорочення м'язів виштовхує сечу із сечового міхура.
  - 10. Сечівник це канал, через який сеча виходить із організму.

#### **Exercise 12. Put questions to the underlined words:**

- 1. <u>Acute glomerulonephritis</u> usually develops a few weeks after a strep infection (стрептококова інфекція) of the throat or skin.
  - 2. Diuretics may be prescribed to increase urination.
- 3. Glomerulonephritis is <u>an inflammation of the glomeruli, small round filters</u> located in the kidney.
- 4. Kidney stones cause painful problems when they block the flow of urine through or out of the kidney.
  - 5. Urine is formed by the kidneys.
- 6. Kidney stones cause problems when they interfere with the normal flow of urine.
- 7. <u>Surgical removal of a stone</u> may become necessary when a stone appears too large to pass.
- 8. Kidney stone usually passes more quickly <u>if the patient is encouraged to drink large amounts of fluids</u>.

### Exercise 13. Re-write sentences using the appropriate tense form. Translate them:

Dialysis is the artificial process of getting rid of waste and unwanted water from the blood. This process naturally (to do) by our kidneys. Some people, however, may have damaged kidneys which cannot (to carry out) the function properly – they may need dialysis. In other words, dialysis (to be) the artificial replacement for lost kidney function. Dialysis (to use) for people who (to become ill) and have acute kidney failure, or for fairly stable patients who permanently (to loose) kidney function.

Exercise 14. Describe the term "nephritis" according to the plan:

End disc I ii E discribe the	o term mephritus decertaing to the plant
Definition	
Causes	
Types	
Symptoms	
Risk factors	
Treatment	

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть та вивчіть наступні словосполучення:

- 1. складатися з двох бобовідних органів
- 2. видаляти відходи
- 3. простір між нирковими канальцями
- 4. набрякати від запалення
- 5. запалення клубочків
- 6. печіння підчас сечовипускання
- 7. призводити до ниркової недостатності
- 8. каламутна сеча з кров'ю або гноєм
- 9. попереджувати рецидив захворювання
- 10. пошкоджені або запалені гломерули

#### II. Дайте відповіді на наступні питання:

- 1. What happens when the kidneys inflame?
- 2. How many types of acute nephritis are there?
- 3. Give brief information for all types of acute nephritis.
- 4. What diagnostic tests may be needed to confirm a case of acute nephritis?
- 5. What medications may be administered to patients with acute nephritis?

III. Розкрийте поняття терміну: нефрит
Test
1. Acute infections practically always precede the onset of nephritis.
a) chronic b) acute c) prolonged d) contagious
<ul><li>2. The main predisposing diseases of acute nephritis are:</li><li>a) diphtheria, measles</li><li>b) myocardial infarction</li><li>c) tonsillitis, sorthroat</li></ul>
<ul><li>3. The site of initial lesion in acute nephritis is:</li><li>a) capillaries of glomeruli</li><li>b) tonsils</li><li>c) throat membrane</li><li>d) adenoids</li></ul>
<ul><li>4. Acute nephritis may develop within:</li><li>a) one-two weeks</li><li>b) two-eight days</li><li>c) a month</li><li>d) half a year</li></ul>
<ul><li>5. Patients are known to suffer from renal inflammation as shown by:</li><li>a) X-rays</li><li>b) blood test</li><li>c) urinalyses</li><li>d) renal examination</li></ul>
<ul><li>6. Acute nephritis can lead to</li><li>a) measles b) kidney failure c) tonsillitis d) myocardial infarction</li></ul>
7. The sign of unfavorable prognosis is: a) a scanty flow of urine b) chronic migraines c) hypertension
8. Various diagnostic tests to confirm a case of acute nephritis. a) may need b) need c) may be needed d) will need
9. Sometimes the edema is and hardly recognized by the examining physician.

a) severe b) acute c) grave d) very mild

10. If the kidneys suddenly become inflamed, there will develop a condition called

a) renal insufficiency b) angina pectoris c) heart failure d) acute nephritis

#### **PYELONEPHRITIS**

**Exercise 1. Topic vocabulary:** 

albuminuria, n	[æl'bju:mi'nju:riə]	альбумінурія (наявність білків у сечі)
ascendin, adj	[ə'sendiŋ]	висхідний
bacteriuria, n	[,bæktiri'ju:əriə]	бактеріурія (наявність бактерій у
		сечі)
cloudy, adj	[ˈklavdi]	каламутний
concomitant, adj	[kən'komitənt]	супровідний
congenital, adj	[kən'dzenitl]	вроджений
consume, v	[kən'sju:m]	споживати
consumption, n	[kənˈsʌmpʃən]	споживання
culture, n	[ˈkʌlʧə]	культура
ensue, v	[in'sju:]	виникати
haematuria, <i>n</i>	[ˌhemə'tjuəriə]	гематурія (наявність крові в сечі)
obtuse, <i>adj</i>	[əb'tju:z]	тупий
penetrate, v	['penitreit]	проникати
scarred, adj	[ˈska:d]	вкритий рубцями
shivering fits, <i>n</i>	['ʃivəriŋ 'fits]	озноб, лихоманка

Exercise 2. a) Match the term element with its meaning:

1. pyel(o)	a. heart
2. hepato	b. lung
3. cardio	c. nerve
4. angio	d. liver
5. pulm(o)	e. chest
6. neuro	f. brain
7. pector	g. kidney pelvis
8. cerebr(o)	h. vessel

#### b) Guess what is meant:

pulmonologist, angioplasty, cerebrology, hepatocyte, pyelonephritis, neurologist, pectoralgia, cardiodynamics

- 1. Study of the brain
- 2. Inflammation of the kidney pelvis
- 3. Specialist who deals with nervous diseases
- 4. Specialist in lung diseases
- 5. Pain in the chest
- 6. Cell of the liver
- 7. Surgical restoration of blood vessels
- 8. Mechanism of the heart activity

# Exercise 3. Read the following word-combinations and translate them into Ukrainian:

An ascending infection of the kidney, congenital renal pathologies, a general set of symptoms, obtuse pain in the loins, cloudy and bloody urine, to be caused by bacteria, to penetrate through the urethra, to ensue in the course of cystitis, to have persistent hypertension, to be replaced by the non-functional tissue, to lead to kidney failure, to determine the underlying cause, to prevent the recurrence of disease, to require surgery.

# Exercise 4. Read and translate the sentences. Pay attention to the use of the pronouns one/ones. Say what function they perform in sentences:

- 1. Hard beds are healthier than soft *ones*.
- 2. These stretchers are broken. Take those *ones*.
- 3. I've lost my inhaler. I need a new *one* immediately.
- 4. Don't put this white gown on, it's dirty. Put this *one* on.
- 5. If you haven't got average syringes, small *ones* will also do.
- 6. Do you remember Dr. Green? Is that the *one* who operated on me last year?
- 7. The doctor has asked me to bring another case history. This *one* is crumpled.
- 8. In chronic processes the normal organic tissue may be replaced by the non-functional *one*.

# Exercise 5. Read the text and translate it into Ukrainian: PYELONEPHRITIS

Pyelonephritis (*pyel(o)* – combining form denoting the pelvis of the kidney) is an ascending infection of the kidney. As a rule, it is caused by bacteria that penetrates into the urinary tract from outside through the urethra. It may also ensue in the course of such concomitant diseases as cystitis in women, glomerular nephritis, or urinary stone disease (urolithiasis).

There are two forms of pyelonephritis: acute and chronic ones.

Acute pyelonephritis often begins suddenly with chills. The patient has the general set of symptoms: malaise, headache, profuse sweating, nausea and vomiting. Then, the fever raises rapidly up to 39-40 °C. It is usually accompanied with the dull pain in the loins on the side of the affected kidney. Urination may not be disturbed in uncomplicated cases of pyelonephritis. However, the urine is cloudy and bloody due to the presence of bacteria, protein, and erythrocytes in it. If timely revealed and treated, the patient quickly recovers with the return of the normal kidney function.

Chronic pyelonephritis results from the undertreated acute form of the disease. It is often asymptomatic and can be detected only by means of urinalysis or if the patient has persistent hypertension. In chronic pyelonephritis, the normal renal tissue is replaced by the connective non-functional one. The kidney becomes small and scarred that leads to kidney failure. Among other complications are pyonephrosis (purulent inflammation of the kidney) and urosepsis (presence of urine waste products throughout the body).

A full urological investigation is carried out to determine the underlying cause of pyelonephritis. It includes urinalysis that detects such signs of urinary tract infection as haematuria, albuminuria, bacteriuria, etc.; a urine test strip that reveals the presence of leukocytosis; blood tests; microbiological culture of the urine and antibiotic sensitivity testing.

The first aim of treatment of pyelonephritis consists in removing the underlying abnormalities to prevent the recurrence of disease. Therefore, it includes the administration of appropriate antibiotics to relieve the inflammatory process in the kidney and antibacterial drugs to remove bacteria. The patient must strictly follow a certain diet: one must consume a lot of fruit and vegetables, and drink 3-4 l of water daily. Spicy and fatty food must be avoided. The consumption of salt must be excluded. Surgery is required in severe cases of pyelonephritis or in cases of congenital renal pathologies.

#### **Exercise 6. Answer the questions:**

- 1. What is pyelonephritis?
- 2. What are the possible causes of the disease?
- 3. How many forms are there of pyelonephritis?
- 4. What are the symptoms of acute pyelonephritis?
- 5. How does chronic pyelonephritis manifest itself?
- 6. What can chronic pyelonephritis lead to?
- 7. What investigations are performed to determine pyelonephritis?
- 8. How is pyelonephritis treated?

#### Exercise 7. What symptom of pyelonephritis is described?

- 1. presence of protein in the urine
- 2. constant high blood pressure
- 3. slight shaking of the body due to illness
- 4. dark waste product of kidneys
- 5. presence of blood cells in the urine
- 6. feeling of being slightly ill
- 7. condition of the body when its temperature increases
- 8. presence of bacteria in the urine

### Exercise 8. Insert the necessary preposition:

- 1. Following ... a strict diet means to avoid spicy and fatty food.
- 2. The patient experienced dull pain ... the side of the affected kidney.
- 3. The presence of urine waste products ... the body leads ... urosepsis.
- 4. Some of genitourinary disease are accompanied ... painful urination.
- 5. The urinalysis was carried ... yesterday, so you'll find out your results soon.
- 6. The treatment of pyelonephritis consists ... removing the underlying cause.
- 7. He bent forward to pick up the pill and suddenly felt obtuse pain ... the loins.
- 8. To prevent the disease ... recurrence, it is necessary to complete the course of treatment.

### Exercise 9. Put questions to the underlined words:

- 1. Chronic pyelonephritis leads to kidney failure.
- 2. Two forms of pyelonephritis are distinguished.

- 3. Pyelonephritis implies an ascending urinary tract infection.
- 4. Bacteria causing the UTI penetrate into the body through urethra.
- 5. Cystitis, glomerular nephritis, urorolithiasis may result in <u>pyelonephritis</u>.
- 6. The signs of urinary tract infections are <u>haematuria</u>, <u>albuminuria</u>, <u>bacteriuria</u>.
- 7. Appropriate antibiotics relieve the inflammatory process in the kidney.
- 8. The urine is cloudy and bloody as there are <u>bacteria</u>, <u>protein</u>, <u>and erythrocytes</u> in it.

### Exercise 10. Re-write sentences using the appropriate tense form. Translate them:

- 1. Purulent inflammation of kidney (to know) as pyonephrosis.
- 2. Persistent hypertension (to indicate) the problems with kidneys.
- 3. He (to suffer) from obtuse pain in the loins since last month.
- 4. People with renal pathologies (should, to avoid) spicy and fatty food.
- 5. The detection of pyelonephritis (to be) always possible due to urinalyses.
- 6. During the previous examination the patient (to complain) of painful urination.
- 7. The patient (to recover) quickly from pyelonephritis, if he (to complete) his treatment.
- 8. The onset of pyelonephritis (to accompany) with malaise, profuse sweating, nausea and vomiting.

#### Exercise 11. Translate sentences into English using pronoun *one/ones*:

- 1. Ця історія хвороби вже заповнена, та ще ні.
- 2. Ці пігулки однакові. Яку з них я маю прийняти?
- 3. Я розбила свій термометр, мені потрібен новий.
- 4. Права легеня складається з трьох доль, ліва з двох.
- 5. Пієлонефрит це бактеріальна хвороба, а не грибкова.
- 6. Лікар виписав мені антибактеріальні ліки, а також протизапальні.
- 7. Зараз він знаходиться у цій палаті, але згодом його переведуть до іншої.
- 8. Хронічні процеси призводять до заміщення функціональної тканини нефункціональною.

### Exercise 12. Put sentences in order and describe "pyelonephritis":

- 1. In severe cases, it leads renal dysfunction due to kidney scarring.
- 2. It may be the result of cystitis, nephritis, urolithiasis as well.
- 3. This disease usually manifests itself with dull pain in the loins on the side of the affected kidney, painful urination with cloudy and bloody urine, high fever.
  - 4. Pyelonephritis can be detected by full urological examination.
  - 5. Pyelonephritis can be either acute or chronic.
- 6. It is caused by bacteria penetrating into the urinary tract from outside through the urethra.
  - 7. Treatment of the disease includes antibiotic therapy and salt-free diet.
  - 8. Pyelonephritis is an ascending renal infection.

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть та вивчіть наступні словосполучення:

- 1. висхідна інфекція нирки
- 2. гнійне запалення нирки
- 3. вроджені вади нирок
- 4. заміщатися сполучною тканиною
- 5. супроводжуватися тупим болем
- 6. проникати через сечовидільну систему
- 7. призводити до ниркової недостатності
- 8. відновлення нормальної функції нирки
- 9. попереджувати рецидив захворювання
- 10. вживати багато овочів та фруктів

#### II. Дайте відповіді на наступні питання:

- 1. What are the possible causes of the disease?
- 2. How many forms are there of pyelonephritis?
- 3. What are the symptoms of acute pyelonephritis?
- 4. What can chronic pyelonephritis lead to?
- 5. How is pyelonephritis treated?

#### III. Розкрийте поняття терміну: пієлонефрит

#### **NEPHROLITHIASIS**

Exercise 1. Topic Vocabulary.

calculus (calculi), n	[ˈkælkjʊləs]	камінь (каміння )
excruciating, adj	[ɪkˈskruː.ʃi.eɪ.tɪŋ]	болісний, нестерпний
ensue, v	[ɪnˈsjuː]	виникати
flank, n	[flæŋk]	бік, сторона
gravel, n	[ˈgrævəl]	галька
groin, n	[groin]	пах
intermittent, adj	[ˌɪn.təˈmɪt.ənt]	переривчастий,
		періодичний
persistent, adj	[pəˈsɪs.tənt]	тривалий
rough, adj	[r\lambda f]	грубий
soreness, n	[ˈsəːnəs]	чутливість, болючість
stag-horn, adj	[stæghɔːn]	розгалужений

#### Exercise 2. Form the verbs from the following nouns and translate them:

Manifestation, infection, destruction, obstruction, radiation, origination, involvement, examination, development, production, migration.

#### **Exercise 3. Translate the word combinations:**

Renal calculi; loss of kidney; renal colic; spasm of the abdominal muscles; stasis; albuminuria; haematuria; renal destruction; hydronephrosis; urine; bilateral obstruction of the ureter; pyonephrosis; renal pelvis; cortex of the kidney; examination of the kidneys; migration of the stone.

#### **Exercise 4. Memorize the meaning of the following term-elements.**

Nephr(o) – combining form of Greek origin denoting the kidney Reni- (reno-) - combining form of Greek origin denoting the kidney Ureter (o) - combining form of Greek origin denoting the ureter Sphincter (o) – combining form of Greek origin denoting the sphincter Pyelo(o) – combining form of Greek origin denoting the pelvis of the kidney

#### Exercise 5. Read and translate the text: NEPHROLITHIASIS

The manifestations of renal calculi are extremely variable. In many instances stones are carried in the kidneys for years without producing any symptoms. More commonly, a mild infection develops in the pelvis about the stone and gradually involves the cortex of the kidney until a severe pyelonephritis develops. If the stone is large, or several are present, the infection may progress to pyonephrosis, resulting in the destruction and ultimate loss of the kidney.

The size of a calculus varies from very small gravel to a large stag-horn stone which may fill the renal pelvis. Calcium oxalate stones are usually small, dark, rough and hard. They are more likely to occur in men between 20-30. Calcium phosphate stones tend to be soft, white, chalky and frequently stag-horn in shape. The biggest risk factor for kidney stones is not drinking enough fluids. Kidney stones are more likely to

occur when less than 1 liter of urine is produced during a day.

Migration of a stone may cause obstruction with resultant stasis, infection and clinical manifestations. Persistent or repeated obstruction leads to pyonephrosis or hydronephrosis. When a stone enters and obstructs the ureter, renal colic occurs. There is excruciating pain which originates in the back of flank and radiates across the abdomen and into the groin, genitals and inner aspect of the thigh. There may be nausea, vomiting, sweating, frequency, urgency of urination, chills and shock.

To reveal kidney stones blood test is ordered for checking the levels of calcium, phosphorus and electrolyte. Urinalysis determines crystals and red blood cells in the urine. Examination reveals slight soreness over the involved kidney and ureter, spasm of the abdominal muscles, albuminuria and microscopic haematuria.

Intermittent or persistent obstruction to the flow of urine leads to stasis, infection, hydronephrosis and renal destruction if the obstruction is bilateral, anuria and uremia ensue.

Treatment depends on the type of stones and severity of the symptoms. Small calculi usually pass through urinary system on their own. Some people with severe pain from kidney stones should stay in the hospital and get fluids through the vein. Some medicines (antibiotics, diuretics, sodium bicarbonate) may be prescribed to prevent forming or help breaking down material that causes stones. Surgery is often needed if the calculus is too large to pass on its own or it blocks the urine flow causing an infection or kidney damage.

#### **Exercise 6. Answer the following questions:**

- 1. How are the stones carried in the kidneys for years?
- 2. In what case may the infection progress to pyonephrosis?
- 3. When does renal colic occur?
- 4. What may the migration of stone cause?
- 5. Where does the excruciating pain originate?
- 6. What does the examination of the kidneys reveal?
- 7. What are the symptoms of renal calculi?
- 8. What is the difference between calcium oxalate stones and calcium phosphate stones?

Exercise 7. Choose the correct definitions to the following terms:

Exercise 77 Choose the correct definitions to the following terms?			
1) calculus	a) obstruction and infection of the kidney resulting		
	in pus formation		
2) obstruction	b) denoting stoppage of a flow of liquid, stagnation		
3) albuminuria	c) a term indicating the blockage of a body vessel. It		
	may be caused by foreign objects by naturally		
	formed "stones" (gallstones)		
4) pyonephritis	d) having too much protein in the urine		
5) stasis	e) a stone a hard pebble-like mass formed within the		
	body, particularly in the gall bladder or in the		
	urinary tract		

6) kidney	f) either of two bean-shaped organs at the back of
	the abdominal cavity in man, one on each side of
	the spinal column. They maintain water and
	electrolyte balance and filter waste products from
	the blood, which are excreted as urine

### Exercise 8. Read the text and say whether the following statements are true to the text.

- 1. When a stone enters and obstructs the ureter, renal colic does not occur.
- 2. Intermittent or persistent obstruction to the flow of urine leads to stasis, infection, hydronephrosis and renal destruction.
  - 3. Calcium oxalate stones usually are small, white, rough and not hard.
- 4. The pain in case of calculi originates in the back or flank and radiates across the abdomen and into the groin.
  - 5. There may be only nausea and vomiting in calculi.
  - 6. A mild infection develops in the cortex of the kidney.
  - 7. Migration of a stone may cause obstruction.
  - 8. Kidney stones can never pass through the urinary system themselves.

#### **Exercise 9. Give the English equivalents:**

Повна втрата нирки; дрібна галька; повторна закупорка; нестерпний біль; болючість; ниркова коліка; клінічні прояви; часте сечовипускання; ниркове руйнування; обстеження нирок; потік сечі; блювання та потіння; пах; черевні м'язи.

#### Exercise 10. Find antonyms to the following words:

1. acute	a) hard	
2. destruction	b) to regress	
3. bilateral	c) formation	
4. microscopic	d) lateral	
5. soft	e) severe	
6. to progress	f) macroscopic	

#### **Exercise 11. Make the following sentences interrogative:**

- 1. The manifestations of renal calculi are extremely <u>variable</u>.
- 2. In many instances stones are carried in the kidneys for years.
- 3. Persistent or repeated obstruction leads to pyonephrosis or hydronephrosis.
- 4. Calcium oxalate stones usually are small, dark, rough and hard.
- 5. <u>Migration of a stone</u> may cause obstruction with resultant stasis.
- 6) The <u>excruciating</u> pain originates in the back of flank.
- 7. A mild infection develops in the pelvis.
- 8. Treatment depends on the type of stones.

#### Exercise 12. Open the brackets put the verbs into the appropriate tense

- 1. Kidney stones (to result) from the growth of crystal into stones.
- 2. Nephrolithiasis (to be) more common in men.

- 3. Dietary restrictions (not to advice) in nephrolithiasis.
- 4. Diuretics sometimes (to administer) to treat kidney stones.
- 5. Treatment of acute stones events (to depend) on the size of the stone.
- 6. Many patients who (to have) a kidney stone, (to have) another one.
- 7. Calcium stones usually (to cause) by high intake of certain substances, such as salt.
  - 8. This patient (to complain) of frequent and painful urination for 10 days.

# Exercise 13. Read the definition and fill in the blanks with the words given in brackets:

- 1. Any non-inflammatory degenerative kidney disease .....
- 2. Pain in a kidney ....
- 3. A medical instrument for examination the urethra ....
- 4. Surgical removal of a kidney ....
- 5. Plastic surgery on the pelvis ....
- 6. Any pelvis disease ....

(Pyeloplasty, nephrosis, nephralgia, urethroscope, pyelitis, nephrectomy)

#### **Exercise 14. Translate the sentences into English:**

- 1. Ниркова коліка виникає, коли камінь закупорює сечовід.
- 2. Повторна закупорка сечоводу може призвести до піонефрозу чи гідронефрозу.
- 3. Доведено, що велике каміння може призвести до руйнування та повної втрати нирки.
- 4. Ниркова коліка супроводжується нестерпним болем, нудотою, блюванням та частим сечовипусканням.
  - 5. Щоб виявити камені в нирках, аналіз крові та сечі призначається.
- 6. Деякі ліки можуть попередити утворення каменів або допомогти роздробити існуючі.
- 7. Іноді камені можуть бути присутні в нирках протягом кількох років без ніяких симптомів.
  - 8. Хірургічне втручання необхідне, якщо камені дуже великі.

### Exercise 15. Read and try to guess what this dialogue is about:

Doctor: Are you having any trouble with your waterworks?

Mr. Jones: Well, I do seem to have to go to the toilet more often that I used to.

Doctor: How often is that?

Mr. Jones: It depends, but sometimes it's every hour or even more often.

Doctor: What about at night? Do you have to get up at night?

Mr. Jones: Yes. Nearly always two or three times.

Doctor: Do you get any burning or pain when you pass water?

Mr. Jones: No, not usually.

Doctor Do you have any trouble getting started?

Mr. Jones: No.

Doctor: Is the stream normal? I mean is there still a good strong flow?

Mr. Jones: Perhaps not quite so good as it used to be.

Doctor: Do you ever lose control of your bladder? Any leaking or

dribbling?

Mr. Jones: Well, perhaps a little dribbling from time to time.

Doctor: Have you ever passed blood in the urine?

Mr. Jones: No, never.

#### Exercise 16. Describe the term "Nephrolithiasis" according to the table:

1.	General characteristics	
2.	Symptoms	
3.	Analyses	
4.	Treatment	
5.	Complications	

#### Завдання для самостійної роботи студентів (СРС)

- 1. Перекладіть та вивчіть наступні словосполучення:
- 1. Заповнити ниркову миску
- 2. Спричинити закупорку з застоєм
- 3. Потрапляти в сечовід
- 4. Ниркова коліка
- 5. Віддавати (про біль) в спину, живіт і пах
- 6. Спазм черевних м'язів
- 7. Переміщення каменів
- 8. Повна втрата нирки
- 9. Мікроскопічна гематурія та альбумінурія
- 10. Залучати кору нирки
- 2. Дайте відповіді на наступні питання:
- 1. How does nephrolithiasis develop?
- 2. When doe renal colic occur?
- 3. How are stones carried in the kidneys?
- 4. Where doe excruciating pain originate during nephrolithiasis?
- 5. What symptoms may appear during nephrolithiasis?
- 6. Розкрийте поняття: нефролітіаз

#### Test

- 1. The manifestation of renal calculi are ....
- a) rare b) frequent c) constant d) variable e) unchangeable
- 2. In many instances stones are carried in the kidneys for...
- a) hours b) days c) years d) weeks e) several minutes
- 3. More commonly, a mild infection develops in the pelvis about the stone and involves ... of the kidney.
  - a) nephron b) body c) cortex d) artery e) medulla
  - 4. The infection may progress to ....
  - a) cancer b) pyonephrosis c) nephritisd) pyelonephritis
  - e) glomerulonephritis

5. Calcium oxalate stones usually are .... b) large and soft c) irregular e) tiny d) enormous a) small and hard 6. Migration of a stone may cause ... with resultant stasis, infection and clinical manifestations. a) destruction b) inflammation c) necrosis d) cyanosis; e) obstruction 7. When a stone enters and obstructs the ureter, ... occurs. a) inflammation b) renal colic c) necrosis d) pain e) nephritis 8. Persistent or repeated obstruction leads to .... c) glomeronephritis b) pyelonephritis d) pyonephrosis a) nephritis e) acute inflammation 9. Examination reveals ... over the involved kidney and ureter. a) acute pain b) severe inflammation c) slight soreness d) calculus e) no pain 10. Anuria and uremia ensue if the obstruction is ....

c) partial

d) complete;

e) long-term

b) bilateral

a) lateral

#### **DIABETES MELLITUS**

**Exercise 1. Topic Vocabulary:** 

1. blurred, <i>adj</i>	[bl3:d]	розпливчастий
2. complaint, <i>n</i>	[kəm'pleint]	скарга
3. deficiency, <i>n</i>	[dɪˈfɪʃənsi]	дефіцит, відсутність
4. ensure, <i>v</i>	[ɪnˈʃʊə(r)]	забезпечувати
5. fail, <i>v</i>	[feɪl]	зазнати невдачі, провалитися
6. gradual, <i>adj</i>	[ˈgrædʒuəl]	поступовий
7. juvenile, <i>adj</i>	[ˈdʒuːvənaɪl]	юнацький
8. precede, <i>v</i>	[prɪˈsiːd]	передувати
9. properly, <i>adj</i>	[ˈprɒpəli]	правильно
10. require, <i>v</i>	[rɪˈkwaɪə(r)]	вимагати
11. result from, <i>v</i>	[rɪˈzʌlt]	виникати внаслідок
12. result in, <i>v</i>	[rɪˈzʌlt]	приводити
13. respond to, <i>v</i>	[rɪˈspɒnd]	реагувати
14. subtle, <i>adj</i>	[ˈsʌtəl]	ледь відчутний
15. suspected, adj	[səˈspekt]	підозрюваний
16. trigger, <i>v</i>	[ˈtrɪgər]	спонукати
17.thirst, <i>n</i>	$[\theta s:st]$	спрага

# Exercise 2. Read the word combinations and sentences with the new words and translate them into Ukrainian:

**Vision:** blurred vision; double vision; field of vision; to lose one's vision; to have another vision; tunnel vision. The troops were slowly advancing through the fields using night vision goggles. The optician told me I had twenty-twenty vision.

**Deficiency:** insulin deficiency; deficiency disease; Zinc deficiency.

**Absorption:** glucose absorption; intestinal drug absorption; molecular absorption; gas absorption.

**Failure:** the body's failure; heart failure; kidney failure. Failure is the first step to success. Fear of failure must never be a reason not to try something.

**Changes:** gradual changes; a change for the better; metabolic changes.

Exercise 3. Complete the table with the missing words (you may need a dictionary):

VERB	NOUN	ADJECTIVE
	failure	
		inherited
	injection	
treat		
develop		
		dependent

#### **Exercise 4.Translate the following word combinations into Ukrainian:**

Insulin deficiency, gestational diabetes, treatable forms, the most common type,

glucose absorption, a common complaint, rapid vision changes, inherited diabetes, gradual changes, subtle development, prolonged high blood glucose, suspected cases, to use properly, blurred vision, prescribed therapy, self-glucose monitoring.

# Exercise 5. Read and translate the text: DIABETES MELLITUS

Diabetes mellitus, often simply diabetes, is a group of metabolic diseases in which a person has high blood sugar, either because the body does not produce enough insulin, or because cells do not respond to the insulin that is produced.

There are three main types of diabetes:

Type 1 diabetes: results from the body's failure to produce insulin, and presently requires the person to inject insulin (insulin-dependent diabetes mellitus, IDDM for short, and juvenile diabetes).

Type 2 diabetes results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency (non-insulin-dependent diabetes mellitus, NIDDM for short, and adult-onset diabetes).

Gestational diabetes is when pregnant women who have never had diabetes before, have a high blood glucose level during pregnancy. It may precede development of type 2 DM.

The cause of diabetes depends on the type. Type 1 diabetes is partly inherited and then triggered by certain infections. Type 2 diabetes is due primarily to lifestyle factors and genetics.

All forms of diabetes have been treatable since insulin became available in 1921, and type 2 diabetes may be controlled with medications. Both type 1 and 2 are chronic conditions that usually cannot be cured.

At least 171 million people worldwide suffer from diabetes, or 2.8% of the population. Type 2 diabetes is by far the most common, affecting 90 to 95% of diabetes population, for example, in the U.S.

Signs and symptoms

The classical symptoms of diabetes are polyuria (frequent urinartion), polydipsia (increased thirst) and polyphagia (increased hunger). Symptoms may develop rapidly (weeks or months) in type 1 diabetes while type 2 diabetes they usually develop much more slowly and may be subtle or absent. The elevated plasma glucose levels cause marked glucosouria and an osmotic diuresis resulting in dehydration.

Prolonged high blood glucose causes glucose absorption, which leads to changes in the shape of the lenses of the eyes, resulting in vision changes; blurred vision is a common complaint leading to a diabetes diagnosis; type 1 should always be suspected in cases of rapid vision change, whereas with type 2 change is generally more gradual, but should still be suspected.

The main complications of diabetes mellitus are diabetic retinopathy, diabetic neuropathy, diabetic nephropathy, foot ulcers.

Treatment regimens differ. Patient education is important to ensure the effectiveness of the prescribed therapy. All patients should be instructed in self-glucose monitoring.

### **Exercise 6. Answer the questions:**

- 1. What is diabetes mellitus?
- 2. How many types of diabetes you know?
- 3. What is type 1 diabetes?
- 4. What is type 2 diabetes?
- 5. What is gestational diabetes?
- 6. When did insulin become available?
- 7. What are the classical symptoms of diabetes?
- 8. What does prolonged high blood glucose cause?
- 9. What are the main complications of diabetes?

#### Exercise 7. Find the terms that match the following definitions.

Exercise 7. Find the terms that match the following	o wing deminions
The state or condition of discharging	
abnormally large quantities of urine, often	
accompanied by a need to urinate frequently	
Chronic excessive thirst and fluid intake	
An abnormal desire to consume excessive	
amounts of food	
Increased urination due to the presence of	
certain substances in the fluid filtered by the	
kidneys. This fluid eventually becomes urine.	
These substances cause additional water to	
come into the urine, increasing its amount	
Any disease of the retina, the light-sensitive	
membrane at the back of the eye	
A collection of disorders that occurs when	
nerves of the peripheral nervous system (the	
part of the nervous system outside of the brain	
and spinal cord) are damaged	
Damage to or disease of a kidney	
Excessive loss of body water, with an	
accompanying disruption of metabolic	
processes	
The presence of glucose in the urine	

# Exercise 8. Match the following English word combinations with the Russian ones:

1. the body's failure	а. швидка зміна зору
2. an absolute insulin deficiency	b. неспроможність організму
3. a high blood glucose level	с. бути контрольованим медикаментами
4. triggered by certain infections	d. загальна скарга
5. lifestyle factors	е. забезпечувати ефективність
6. rapid vision change	f. виробляти інсулін
7. to produce insulin	g. високий рівень глюкози в крові
8. a common complaint	h. визваний деякими інфекціями

9. to ea	nsure tl	he effectivenes	S	i.	абсолютна недостатність інсуліну
10.to	be	controlled	with	j.	фактори способу життя
medications					

**Exercise 9. Make the corresponding pairs:** 

1.	metabolic	a.	sugar
2.	to inject	b.	resistance
3.	gestational	c.	condition
4.	diabetes	d.	changes
5.	blood	e.	disease
6.	insulin	f.	insulin
7.	chronic	g.	diabetes
8.	classical	h.	population
9.	Self-glucose	i.	therapy
10.	vision	j.	symptoms
11.	prescribed	k.	monitoring

### **Exercise 10. Approve or contradict the following statements:**

- 1. There are two main types of diabetes.
- 2. Type 2 diabetes: results from the body's failure to produce insulin, and presently requires the person to inject insulin.
  - 3. Type 1 diabetes is partly inherited and then triggered by certain infections.
- 4. The main complications of diabetes mellitus are diabetic retinopathy, diabetic neuropathy, diabetic nephropathy, foot ulcers.
  - 5. The cause of diabetes does not always depend on the type.

# Exercise 11. Fill in the table with appropriate translation of the words and terms:

1 1119 •			
metabolic		produce	
	збільшений		поступово
genetics		trigger	
	зневоднення		підозрювати
Diabetes		certain	
population			
	поглинання		забезпечувати
cure		depend on	
	кришталик		розпливчастий
rapidly		subtle	

# Exercise 12. Read some facts about diabetes and fill in the gaps with the word combinations given in the table below:

complications	diabetes capital	under the age
sedentary lifestyle	delay	'silent killer disease'
middle-income group	silent epidemic	246 million people in the world
kidney failure	3.2 million people	feeling thirsty

- 2. India is the...... of the world. It is estimated that currently there are 40 million people with diabetes in India and by 2025 this number will swell to 70 million. This would mean every fifth diabetic in the world would be an Indian.
- 3. Diabetes causes 6 deaths every minute and one in 20 deaths in the world is due to the condition. Every year it is estimated that ......in the world die due to the diabetes or its related causes.
- 4. Diabetes is an important...... as there is usually no early symptom of the disease. The commonest early symptom is......

- 7. Diabetes is the number one cause of ...................... in the world. Besides this every year it is responsible for 5% or 5 million blindness in adults and one million limb amputations. Diabetes is also an important cause of heart disease, stroke and cataract.
- 8. The current cost of treating diabetes and its ...... in the world is estimated as US \$ 215-375 billion. The disease is growing fastest in developing countries where there are more people in the lower and ...........

#### Exercise 13. Fill in the table:

Causes of diabetes	
Signs and symptoms	
Analyses	
Treatment	
Complications	

## Exercise 14. Fill in prepositions where necessary:

- 1. A lot of people worldwide suffer ..... diabetes.
- 2. Doctors should instruct their patients ... self-glucose monitoring.
- 3. The cause of diabetes depends ..... the type.
- 4. Glucose absorption leads ... changes in the shape of the lenses of the eyes.
- 5. Type 2 diabetes may be controlled ... medications.
- 6. He complained ... splitting headache.
- 7. I was ill ... bronchitis and had to stay out ... ... shool ... a aweek.

#### **Exercise 15. Put the questions to the underlined words:**

- 1. There are three main types of diabetes.
- 2. Type 2 diabetes results from insulin resistance.
- 3. Several million people worldwide suffer from diabetes.
- 4. The classical symptoms of diabetes are polyuria, polydipsia and polyphagia.
- 5. Type 2 diabetes may be controlled with medications.
- 6. Symptomatic hyperglycemia may persist for days or weeks.

7. All patient should be instucted in <u>self-glucose monitoring</u>.

## Exercise 16. Open the brackets and put the verbs in the correct tense and voice:

- 1. The patient (to suffer) from diabetes for 10 years.
- 2. The cause of diabetes (to depend) on the type.
- 3. Type 2 diabetes (to result) from insulin resistance.
- 4. Diabetes (to suspect) in case of rapid vision changes.
- 5. Symptomatic hyperglycemia (persist) for days or weeks.
- 6. All patients (to instruct) in self-glucose monitoring.
- 7. Treatment regimens (to differ).
- 8. Insulin (to become) available in 1921.
- 9. Lifestyle and genetics (to cause) type 2 diabetes.
- 10. One of the main Mr. Willis's complaints (to be) blurred vision.

#### **Exercise 17. Translate into English:**

- 1. Ця реакція відбуваеться при низьких температурах.
- 2. Я звільнюся через 2 години.
- 3. Паціент скаржиться на слабкість та безсоння.
- 4. Місцеві анестетики розподіляються на 2 групи згідно з іх діею.
- 5. Розрив селезінки було виявлено при операції.
- 6. Укус собаки призводить до сказу.
- 7. Деякі люди мають алергію на різні ліки.
- 8. Паціент скаржиться на біль у лівому боці.

## Завдання для самостійної роботи студентів (СРС)

## І. Перекладіть наступні словосполучення:

- 1. швидка зміна зору
- 2. неспроможність організму
- 3. бути контрольованим медікаментами
- 4. загальна скарга
- 5. забезпечувати ефективність
- 6. виробляти інсулін
- 7. високий рівень глюкози в крові
- 8. визваний деякими інфекціями
- 9. абсолютна недостатність інсуліну
- 10. фактори способу життя

## II. Дайте відповіді на наступні питання:

- 1. What is diabetes mellitus?
- 2. What is type 1 diabetes?
- 3. What is type 2 diabetes?
- 4. What is gestational diabetes?
- 5. What are the main complications of diabetes?

## **III.** Розкрийте поняття: цукровий діабет, інсулін

## Test

	<ul><li>1. Diabetes mellitus, often simply diabetes, is a group of diseases.</li><li>a) hereditary b) metabolic c) contagious d) chronic e) acute</li></ul>
	<ul> <li>2. Type 2 diabetes results from</li></ul>
	3. There are main types of diabetes. a) 2 b) 3 c) 5 d) 4 e) 6
	<ul><li>4. The cause of diabetes depends on</li><li>a) the type</li><li>b) blood group</li><li>c) character</li><li>d) age</li><li>e) sex</li></ul>
	5. When did insulin become available? a) 1898 b) 1921 c) 1914 d) 1941 e) 1945
	<ul> <li>6. The classical symptoms of diabetes are:</li> <li>a) headache, nausea, vomiting</li> <li>b) insomnia, fatigue, general malaise</li> <li>c) breathlesnes, cyanosis, itching d) polyuria, polydipsia and polyphagia.</li> <li>e) high temperature, rash, heartburn</li> </ul>
	7. The main complications of diabetes mellitus are: a) diabetic retinopathy, diabetic neuropathy c) diabetic nephropathy, foot ulcers e) edema, tinnitus, paralysis
	8. Both type 1 and 2 are chronic conditions that usually be cured. a) can b) cannot c) might d) mustn't e) should
	9. Prolonged high blood glucose can result in: a) hearing problems b) vision changes c) insomnia e) swelling d) hallucinations
reg	10is important to ensure the effectiveness of the prescribed therapy: a) patient control b) patient education c) patient's emotional poise d) bed gimen e) insulin resistance

#### **GOITER**

**Exercise 1. Topic Vocabulary:** 

affect, v	[əˈfekt]	уражати
community, n	[kəˈmjuː.nə.ti]	спільнонта
dwarfism, n	[dwo:fizm]	карликовість
fortify, v	[ˈfɔː.tɪ.faɪ]	укріпляти, посилювати
goiter, n	[ˈgɔɪ.tə]	зоб
impairment, n	[im'peər mənt]	порушення
involve, v	[ın'vɒlv]	спричиняти, включати
lack (of), n	[læk]	нестача, відсутність
miscarriage, n	[ˈmɪsˌkær.ɪdʒ]	викидень
result in, v	[rɪˈzʌlt]	бути результатом, приводити
require, v	[rɪˈkwaɪə]	вимагати
soil, n	[lica]	земля, грунт
stillbirth, n	[ˈstɪl.bɜːθ]	народження мертвого плоду

#### **Exercise 2. Translate the word combinations:**

Noncancerous; thyroid gland; the most common cause; mountainous regions; iodine; mental; brain; salivary glands; a runny nose; table salt; production; diet; metabolism; taste; disorder; weakness; seafood; to detect; to regulate; condition; diffuse; nodule.

### Exercise 3. Form the following new words and translate them:

- -y: run, rain, sun, wind, fun, fog, bone, blood, health, sleep, taste, water, noise, dirt, ease.
- -ment: enlarge, impair, develop, achieve, treat, require, equip, move, establish, appoint, measure, excite, argue, state.
- -ism: cretin, giant, hyperthyroid, hypoinsulin, narcotic, embole, iodine, human, alcohol, fatal, hero, Darwin, evolution, modern, criticize;
- -ness: weak, deaf, dull, cold, ill, fresh, red, tired, restless, calm, kind, polite, cool, dry, dark.

# Exercise 4. Form the degrees of comparison of the following adjectives and adverbs:

Little, warm, lately, frequent, high, clear, shy, bad, far, good, comfortable, great, much, big, rare, rich, fur, necessary, dangerous, little, cold, many, useful, easy.

## **Exercise 5. Give English equivalents to the following words:**

Бідний, найкращий, менше, більше, більший, гірше, цікавий, далекий, найнебезпечніший, більш розповсюджений, найпоширеніший.

# Exercise 6. Read and translate the text: GOITER

A goiter is a noncancerous enlargement of the thyroid gland in the front of the neck. The enlargement may be diffuse – involving most of the gland, or localized – limited to a particular area, as in a solitary (single) nodule. Many conditions can cause

goiter, but the most common is a lack of sufficient iodine in the diet, which is usually a result of the soil in which food is grown being iodine-poor—a condition that occurs in many mountainous regions away from the sea. Iodine is required for the production of thyroid hormones, which regulate the body's metabolism. Other factors that may lead to the condition include certain medicines (e.g. lithium), infections, cigarette smoking, certain foods (e.g. soy, peanuts, broccoli and cabbage).

Surveying communities for goiter is one of the best ways of detecting iodine deficiency, which, if not treated, can cause stillbirths, miscarriages, cretinism, mental impairments, deafness, and dwarfism. Physical examination involves feeling of a neck on swallowing. Swelling in the region of the thyroid may be felt. If goiter is very large there may be swelling in neck vein. Blood test is ordered to measure thyroid function.

The main symptom of goiter is enlarged thyroid. The size may range from a small nodule to a large neck lump. In rare cases, an enlarged thyroid can put pressure on the trachea. This can lead to breathing difficulties, cough, hoarseness, swallowing difficulties.

An excess too much, or a deficiency – too little of circulating hormones causes a wide range of medical conditions, for example hyperthyroidism and hypothyroidism. Where there is an excess of hormone, one form of treatment consists of giving the patient something which inhibits the production of hormone, as in the use of carbimazole to treat hyperthyroidism. When a hormone is deficient, treatment may be by replacement therapy, for example injections of insulin in the treatment of Type I diabetes.

Iodine deficiency is the most common preventable cause of brain damage and mental retardation, affecting about 50 million people worldwide. However, these disorders have been reduced simply by using table salt fortified with iodine.

Adults require at least 20 micrograms of iodine daily, but 150 micrograms is recommended. Seafood is excellent source, while the iodine content of other foods varies depending on animal feed and soil. Iodism (iodine poisoning) is a rare condition that results in weakness, swollen salivary glands, a metallic taste in the mouth, and a runny nose.

### **Exercise 7. Answer the following questions:**

- 1. What are the types of goiter?
- 2. What is required for the production of thyroid hormones?
- 3. What is the most common cause of goiter?
- 4. What is hyperthyroidism?
- 5. What is hypothyroidism?
- 6. What can goiter cause?
- 7. What does iodism result in?
- 8. What is one of the best ways of detecting iodine deficiency?
- 9. How much iodine do adults require daily?
- 10. What is the excellent source of iodine?

#### **Exercise 8. Choose the correct definitions to the following terms:**

1) metabolism	a) poisoning induced by ingestion of iodine or its compounds.		
2) iodism	b) an endocrine gland of vertebrates, consisting in man of two		
3) thyroid gland	lobes near the base of the neck. It secretes hormones that		
4) dwarfism	control metabolism and body growth.		
5) cretinism	c)the condition of being a dwarf.		
6) goiter	d) the swelling of the thyroid gland.		
	e) a condition arising from a deficiency of thyroid hormone,		
	present from birth, characterized by dwarfism and mental		
	retardation.		
	f) the sum total of the chemical processes that occur in living		
	organism, resulting in growth, production of energy,		
	elimination of waste material, etc.		

#### Exercise 9. Give English equivalents of the following word combinations:

Розумова відсталість; пошкодження мозку; гірській район; поганий грунт; збільшення щитовидної залози; столова сіль; отруєння йодом; рідкісний стан; металевий смак у роті; опухлі слинні залози; єдиний вузлик; лікування хвороби; нежить; регулювати обмін речовин; замінне лікування.

#### **Exercise 10. Continue the sentences:**

- 1. The most common cause of goiter is ....
- 2. Surveying communities for goiter is ....
- 3. If not treated goiter can cause ....
- 4. Iodine deficiency affects ....
- 5. Seafood is ....
- 6. The enlargement may be .....
- 7. Iodism results in ....
- 8. Iodine deficiency may lead to ....

### Exercise 11. Open the brackets and use verbs in the correct tense and voice:

- 1. The number of goiter cases (to vary) greatly by region.
- 2. Iodine (to require) for the production of thyroid substances.
- 3. Thyroid hormones (to regulate) the body's metabolism.
- 4. Iodine deficiency (to affect) about 50 million people worldwide.
- 5. Iodine deficiency (can, to cause) mental impairments, miscarriages, cretinism.
- 6. The table salt (to fortify) with iodine.
- 7. A lack of sufficient iodine in the diet (to result from) the iodine poor soil in which food is grown.
- 8. The examination (to reveal ) an enlarged thyroid, red sweaty palms and a fine tremor of the hands.
  - 9. An enlarged thyroid gland (to call ) a goiter.
  - 10. Hyperthyroidism (to confirm) by the correct examination.

## Exercise 12. Make up questions to the underlined words:

- 1. Adults require 20 micrograms of iodine daily.
- 2. Iodism is a rare condition.

- 3. Iodism results in weakness, swollen salivary glands and a runny nose.
- 4. Iodine is required <u>for the production of thyroid hormones</u>.
- 5. Many conditions can cause goiter.
- 6. About 740 million people have goiter.
- 7. A lack of sufficient iodine in the diet occurs in many mountaneous regions.
- 8. She has noticed that her hands have a tendency to shake.
- 9. Recently she has developed palpitations, heat intolerance and diarrhea.
- 10. Sufferers of type I diabetes are deficient in insulin.

# Exercise 13. Match Mrs Davis's symptoms (1-6) with the questions her doctor asked (a-f).

1. diarrhea	a) Do you prefer hot weather or cold?
2. eating more	b) Is your weight steady?
3. heat intolerance	c) What is your appetite like?
4. overactivity	d) Are your bowels normal?
5. palpitations	e) Are you able to sit and relax?
6. weight loss	f) Have you ever felt your heart beating rapidly?

#### **Exercise 14. Translate the sentences into English:**

- 1. Найрозповсюдженішою причиною зобу  $\epsilon$  недостатня кількість йоду в харчуванні.
- 2. Доросла людина повинна вживати щонайменше 20 мікрограм йоду кожен день.
- 3. Відомо, що ознаками отруєння йодом є напухання слинних залоз та металічний присмак.
- 4. Зоб виникає, коли щитовидна залоза не здатна виробляти достатню кількість гормонів.
- 5. Доведено, що зоб виникає в таких регіонах, де грунт та вода не мають достатньої кількості йоду.
- 6. Іншими причинами, що викликають зоб можуть бути інфекції, деякі ліки та куріння.
  - 7. Збільшення щитовидної залози це перша ознака зобу.
- 8. Ускладненням зобу у вагітних може бути викидень або народження мертвого плоду.

### Exercise 15. Describe the term "Goiter" according to the table:

1.	General characteristics	
2.	Symptoms	
3.	Analyses	
4.	Treatment	
5.	Complications	

## Завдання для самостійної роботи студентів (СРС)

- 1. Перекладіть та вивчіть наступні словосполучення:
- 1. виявляти недостатність йоду
- 2. знижувати продуктивність гормонів

4. 5. 6. 7. 8. 9.	лікувати гіпертиреоз використовувати йодовану столову сіль потребувати 20 мікрограм йоду щоденно не канцерогенне збільшення щитовидної залози спричиняти зоб недостатньо йоду в харчуванні отруєння йодом опухлі слинні залози	
2. 1. 2. 3. 4. 5.	Дайте відповіді на наступні питання: What types of enlargement of thyroid gland do you know? What are the reasons that can cause goiter? What can be the result of goiter if it is not treated? What should a doctor do when a patient has an excess of hormones? How much iodine does a person need daily?	
3. Д	<b>Т</b> айте визначення: Зоб	
a) r	Test A goitre is of the thyroid gland. mental impairment b) inflammation c) noncancerous enlargement bigging deficiency e) diminution	ent
	Iodism is a condition. frequent b) rare c) periodic d) chronic e) acute	
a) c	The most common cause of goitre is  overweight b) lack of iron c) lack of calcium d) underweight lack of iodine	ıt
a) e	Iodine is required for the production of erythrocytes b) leucocytes c) thyroid hormones d) thrombocyt proteins	es
	Brain disorders have been reduced by using fortified with iodine. iron b) calcium c) vitamin D d) meat e) table salt	
	Adults require at least micrograms of iodine daily.  5 b) 10 c) 15 d) 20 e) 30	
a) p	Iodine deficiency affects mainly physical condition b) mental sphere c) movement running e) diet habits	
	is excellent source of iodine. wet soil b) vegetables; c) fruit; d) seafood e) vitamins	
9 /	A lack of sufficient iodine in the diet is a result of	

- a) wet soil b) dry soil c) uncultivated soil
- d) iodine-poor soil e) soil rich in fertilizers
- 10. Thyroid hormones regulate ....
- a) respiratory functions b) body's metabolism c) reproduction
- d) excretory function e) mental activities

#### **OBESITY**

Exercise 1. Topic vocabulary:

Exercise 1. Topic vocabulary.				
due	[dju:]	належний		
due to		внаслідок		
to be due to		обумовлюватися		
burden, <i>n</i>	[bə:dn]	тягар;вага;ноша		
succumb, v	[səˈkʌm]	вмерти (від чогось)		
premature, adj	['premət∫ə]	передчасний		
obese, adj	[əuˈbiːs]	гладкий, ожирілий		
obesity, <i>n</i>	[əuˈbiːsiti]	гладкість; ожиріння		
curtail, v	[kɜːˈteɪl]	скорочувати, урізувати		
overindulgence, n	[əuvərin 'dʌldʒəns]	надмірне зловживання		
injurious, adj	[ın'dʒuərɪəs]	шкідливий		
secure, v	[sɪˈkjuə]	забезпечувати безпеку		
hazard, <i>n</i>	[ˈhæzəd]	ризик		
convince, v	[kən'vins]	переконувати		
span, n	[spæn]	тривалість життя		

#### Exercise 2. Give Russian equivalents to the following English ones:

Heavy burden, shortening of the life span, premature death from, average or below average, obese individuals, retention of normal weight, preventive medicine, the energy requirement of the body, a daily caloric intake, a positive energy balance, dietary habits, excessive amounts of starchy food, compensative diminution, risk in overindulgence, normal gain of weight, consumption of food, to burn the excessive fat, to be due to the efforts.

### **Exercise 3. Choose the proper definitions for the terms:**

1. fat	a). Substance taken in to maintain life and growth.	
2. food	b). A substance that contains one or more fatty acids and is the	
3. habit	principal form in which energy is stored by the body.	
4. retention	c). The condition in which excess fat has accumulated in the	
	body, mostly in the subcutaneous tissue.	
5. overweight	d). Inability to pass urine, which is retained in the bladder.	
6. obesity	e). Above the weight allowed or desirable.	
	f). A sequence of learned behavior occurring in a particular	
	context or as a response to particular events.	

## Exercise 4. Find the stem in the following words. Point out prefixes and suffices:

Physically, hopefully, necessity, extremity, shortening, blindness, sleeplessness, unnecessary, unfortunately, discomfort, in-patient, overweight, unalterable, treatment, punishment, decreased, inferiority, fatty, instigation, overindulgence, injurious, unknown, disinfection, irreversible, possibly.

# Exercise 5. Form words with the help of negative prefixes. Translate into English:

Dis- like, function, connect, agree

Un- fortune, necessary, forgettable, reliable

In- different, human, visible, dissolution, effective

Im- possible, practical, mobile, moral

Ir- regular, responsible, relevant, resistible

Mis- understand, translate, place, pronounce, carriage

Mal- nutrition, formation, position, treatment

### Exercise 6. Read the following words according to the rules of reading:

 $[\int n]$  - station, resolution, institution, dissolution, introduction, session, discussion;

 $[t \hat{J} \circ]$  - na<u>ture</u>, picture, future, lecture, creature, rupture, puncture, fracture, mixture;

[əs] - danger<u>ous</u>, viscous, numerous, obvious, nervous, infectious, previous, serious.

# Exercise 7. Revise grammar material. Translate into Russian. Pay attention to the sentences with Complex Subject:

- 1. The patient is supposed to have been discharged from the hospital.
- 2. He is thought to suffer from pneumonia.
- 3. Leucocytosis is known to develop in inflammation.
- 4. They seem to study Biochemistry.
- 5. He appears to suffer from tuberculosis.
- 6. The pain proved to be sharp on physical exertion.
- 7. The doctor is likely to discharge this patient.
- 8. Acute appendix is sure to be removed immediately to prevent its rupture which may result in peritonitis.

# Exercise 8. Read and translate the text: OBESITY

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. Overweight, particularly in individuals past middle life, is a burden which many persons carry about quite without necessity. In many instances, this heavy burden will result in a definite shortening of the normal life span; they are more likely to succumb to premature death from coronary thrombosis, from diabetes, or from infections, such as pneumonia or cholecystitis, as well as many other diseases, than persons in the same age group whose weight is average or below average. Furthermore, the obese individual suffers from unnecessary fatigue, from heat intolerance, and from arthritis, as well as from other serious discomforts, much more commonly than do persons of normal weight. Thus, the prevention of obesity and the retention of normal weight is a matter of importance in the field of preventive medicine.

The important factor in production of overweight is a daily caloric intake which exceeds the energy requirement of the body — in brief; the fat person eats too

much rich food.

A positive energy balance may be due to a variety of causes: one of the important factors is dietary habits. Some people tend to eat excessive amounts of starchy or fatty foods. The overweight of persons past middle life is almost always the result of the decreased energy output of the individual, as the years advance, with no compensative diminution in diet intake. People over 50 eat as much as they did at 20, although their activities are greatly curtailed. Probably the most common cause of overweight is the fact that individuals overeat because they enjoy food, and do not realize that there is any risk in overindulgence.

Prevention of overweight centers is teaching each individual that overweight, particularly with increasing age, is an unnecessary hazard to a normal life. The person must be convinced that the "normal" gain of weight with increasing age is injurious, in a direct ratio to the degree of increase of weight to increasing age.

The other essential educational feature that must be emphasized is that weight reduction can best be secured by maintaining a slow and gradually progressive negative energy balance. In other words, the daily consumption of food should be slightly less than the energy demands of the body. Thus, the body will burn the excess fat in place of food.

The branch of medicine that deals with the causes, prevention and treatment of obesity is known as bariatrics, the field of medicine that encompasses dietary, physical and behavioral therapy approaches to weight loss as well as pharmacotherapy and surgery.

### Exercise 9. Answer the following questions:

- 1. At what age may overweight frequently occur?
- 2. What diseases does obesity usually result in?
- 3. What serious conditions does an obese individual suffer from?
- 4. What is a matter of importance in the field of preventive medicine?
- 5. Why is a daily caloric intake important factor in production of overweight?
- 6. What causes may a positive energy balance be due to?
- 7. What is the most common cause of overweight?
- 8. Why do the persons over 50 more frequently suffer from this heavy burden?
- 9. What do the prevention of overweigh centers teach obese individuals?
- 10. What can weight reduction best be secured by?

# Exercise 10. Join the parts of the sentence in the column A with the correct ones in the column B:

- 1. Overweight will result in ...
- 2. The obese individuals are more likely to succumb to premature death from ...
- 3. Furthermore, they suffer from ...
- 4. The prevention of obesity and the retention of normal weight is ...
- 5. A daily caloric intake exceeds the ...
- 6. A positive energy balance may be
- 1. ...the "normal" gain of weight with increasing age is injurious.
- 2. ...the energy requirement of the body.
- 3. ...unnecessary fatigue, heat intolerance, and arthritis, as well as other serious discomforts.
- 4. ...a matter of importance in the field of preventive medicine.

due to ...

- 7. The overweight of persons past middle life is almost always the result of ...
- 8. The person must be convinced that...
- 9. The daily consumption of food should be ...
- 10. The body will ...

- 5. ...burn the excess fat in place of food.
- 6. ...slightly less than the energy demands of the body.
- 7. ...a definite shortening of the normal life span.
- 8. ...coronary thrombosis, diabetes, or infections, such as pneumonia or cholecystitis, as well as many other diseases.
- 9.... dietary habits.
- 10. ...the decreased energy output of the individual.

#### Exercise 11. Put questions to the underlined members of sentences:

- 1. In many instances, overweight will result in <u>a definite shortening of the normal life span</u>.
- 2. The obese individual suffers from unnecessary fatigue, from heat intolerance, and from arthritis, as well as from other serious discomforts.
- 3. The prevention of obesity and the retention of normal weight is a matter of importance in the field of preventive medicine.
- 4. The important factor in production of overweight is <u>a daily caloric intake</u> which exceeds the energy requirement of the body.
  - 5. A positive energy balance may be due to a variety of causes.
- 6. The overweight of persons <u>past middle life</u> is almost always the result of the decreased energy output of the individual.
- 7. Probably the most common cause of overweight is the fact that individuals overeat because they enjoy food, and do not realize that there is any risk in overindulgence.
  - 8. The body will burn the excess fat in place of food.

# Exercise 12. Use the verbs in brackets in the appropriate tense. Translate them into Russian:

- 1. Overweight, particularly in individuals past middle life, is a burden which a person (to carry) about quite without necessity.
  - 2. Positive energy balances (to be due to) a variety of causes.
- 3. Obese individuals are more likely (to succumb) to premature death from coronary thrombosis, from diabetes, or from infections, such as pneumonia or cholecystitis.
- 4. The obese individuals (to suffer) from unnecessary fatigue, from heat intolerance, and from arthritis.
- 5. It's known that a daily caloric intake (to exceed) the energy requirement of the body.
- 6. They knew, that some people (to tend) to eat excessive amounts of starchy or fatty foods.
  - 7. People over 50 eat as much as they did at 20, although their activity (to be

greatly curtailed).

8. Preventions of overweight centers (to teach) each individual that overweight, particularly with increasing age, is an unnecessary hazard to a normal life.

# Exercise 13. Match Russian word combinations in column A with English ones in the column B:

Α

надлишкова вага тяжкий тягар (ноща) тривалість життя передчасна смерть нетерпимість тепла профілактика ожиріння калорійна їжа дієтичні звички надмірна кількість В

caloric food excessive amount premature death overweight heavy burden dietary habits life span

prevention of obesity heat intolerance

# Exercise 14. Arrange the following sentences in a correct order to describe the following term «ожиріння»:

- 1. It may be associated with increased risk of illness, disability and death. The obese people may suffer from fatigue, heat intolerance and from arthritis, as well as from other serious discomforts.
- 2. The branch of medicine that deals with the study and treatment of obesity is known as bariatrics.
- 3. The important factor in production of overweight is a daily caloric intake which exceeds the energy requirement of the body.
- 4. In obesity weight reduction can best be provided by maintaining a slow and gradually progressive negative energy balance. In other words, the daily consumption of food should be slightly less than the energy demands of the body. Thus, the body will burn the excess fat in place of food.
- 5. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health the past middle life persons.

### **Exercise 15. Translate into English:**

- 1. Відомо, що тучність зустрічається у людей після 40 років.
- 2. Напевне, що ожиріння зможе вплинути, в большій ступені, на скорочення тривалості життя.
- 3. Виявилось, що причиною раптової смерті цього гладкого пацієнта був коронарний тромбоз.
- 4. Навряд чи, людина з нормальною вагою, буде страждати від ожиріння.
- 5. Стверджують, що підтримка нормальної ваги та профілактика ожиріння є головним завданням превентивной медицини.
- 6. Безсумнівно, що у людини, котра споживає велику кількість жирной їжі, порушиться енергетичний баланс.
  - 7. Вважають, что люди переїдають, тому, що вони насолоджуються їжею,

при цьому, вони не усвідомлюють, що це може призвести до зловживання.

- 8. Певно, що цьому гладкому пацієту назначать низькокалорійну дієту, котра не буде вміщувати великої кількості жиру і крохмалю.
- 9. Навряд чи, організм зможе спалити таку велику кількість жиру самостійно.
- 10. Відомо що, для того, щоб дієта була сбалансованою людям, схильним до ожиріння, не рекомендують вживати висококалорійну їжу кожного дня.

### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть наступні словосполучення:

- 1. щоденне вживааня їжі
- 2. тяжкий тягар (ноща)
- 3. скорочення тривалості життя
- 4. спричиняти передчасну смерть
- 5. середня вага тіла
- 6. профілактика ожиріння
- 7. стримування нормальної ваги
- 8. надлишкова вага
- 9. звички харчування
- 10. надмірна кількість жирної їжі

#### II. Дайте відповідь на наступні питання:

- 1. At what age may overweight in obesity frequently occur?
- 2. What is the important factor in production of overweight?
- 3. What serious conditions does an obese individual usually suffer from?
- 4. What can weight reduction in obesity best be provided by?
- 5. What branch of medicine studies the causes, prevention and treatment of obesity?

## **III. Розкрийте поняття:** ожиріння

#### **Test**

1	. Overweig	ght, particula	arlyindividuals	s past middle	life, is a	burden	which
many p	ersons carr	y about quite	without necessity	•			
a	) at	b) on	c) from	d) by	e)in		

- 2. In many instances, this heavy burden will result in a definite shortening of the normal life span; they ... to premature death from coronary thrombosis, from diabetes, or from infections.
  - a) are more likely to succumb b) are more likely to be succumb
  - c) are more likely to be being succumb

    d) is more likely to succumb
  - e)am more likely to succumb
- 3. ..., the obese individual suffers from unnecessary fatigue, from heat intolerance, and from arthritis, as well as from other serious discomforts, much more commonly than do persons of normal weight.
  - a) Further b) Furthermost c) Furtherance d) Furthermore e) Furthest

<ul> <li>4. Thus, the prevention of obesity and the retention of normal weight is a matter of importance in the field of</li> <li>a) prenatal medicine b) preventive medicine c) physical medicine d) postclinical medicine e) preserving medicine</li> <li>5. The important factor in production of overweight is a daily caloric intake which exceeds the energy requirement of the body — in brief; the fat person eats rich food.</li> <li>a) too many b) too little c) too small d) too big e) too much</li> </ul>
6. A positive energy balance a variety of causes: one of the important factors is dietary habits.  a) might be due to b) may be due to c) may due to d) may to be due to e) may be due
7. People eat as much as they did at 20, although their activities are greatly curtailed. Probably the most common cause of overweight is the fact that individuals overeat because they enjoy food, and do not realize that there is any risk in overindulgence.  a) over 20 b) over 30 c) over 40 d) over 50 e) over 60
8. Prevention of overweight centers each individual that overweight, particularly with increasing age, is an unnecessary hazard to a normal life.  a) teaching b) is teaching c) be teaching d) to be teaching e) is being teaching
9. The person must be convinced that the with increasing age is injurious, in a direct ratio to the degree of increase of weight to increasing age.  a) "increased" gain of weight b) "permanent" gain of weight c) "normal" gain of weight e) "decreased" gain of weight
10. The other essential educational feature that must be emphasized is that weight reduction by maintaining a slow and gradually progressive negative energy balance.  a) can best be secured b) could best be secured c) can best is secured d) can worst be secured e) can best to be secured

#### **ALLERGY**

**Exercise 1. Learn the following words:** 

allergy, n	[ˈælədʒɪ]	алергія
exposure, n	[ik'spəʊʒə]	піддавання зовнішньому впливу
histamine, <i>n</i>	['histəmin]	гістамін
invade, v	[in'veid]	вражати
pollen, n	['pɔlən]	квітковий пилок
hives, n	[haivz]	кропивниця
wheeze, v	[wi:z]	сопіти, хрипіти
itch, n	[iʧ]	чесатися, свербіти
clogging, n	[kləgiŋ]	засмічення
rash, n	[ræʃ]	висип, висипання
mold, n	[məʊld]	пліснява
mite, <i>n</i>	[mait]	кліщ
swelling, n	['swelin]	пухлина, припухлість

**Exercise 2. Choose the proper definitions to the terms:** 

Exercise 2. One ope the proper definitions to the terms.			
1. Sneezing	a. is an irritating sensation that makes you want to		
	scratch to relieve the feeling		
2. Sensitization	b. is an outbreak of swollen, pale red bumps or		
	plaques on the skin that appear suddenly		
3. Allergen	c. a semi-autonomous, convulsive expulsion of air		
	from the lungs through the nose and mouth, usually		
	caused by foreign particles irritating the nasal mucosa		
4. Pollen	d. a serious allergic reaction that is rapid in onset and		
	may cause death a serious allergic reaction that is		
	rapid in onset and may cause death		
5. Anaphylaxis	e. is a continuous, coarse, whistling sound produced		
	in the respiratory airways during breathing		
6. Wheezing	f. exposure to allergen that results in the development		
	of hypersensitivity		
7. Hives	g. is a fine to coarse powder containing the		
	microgametophytes of seed plants		
8. Itching	h. a type of antigen that produces an abnormally		
	vigorous immune response in which the immune		
	system fights off a perceived threat that would		
	otherwise be harmless to the body		
,			

#### **Exercise 3. Translate the following word combinations:**

Over-reaction, foreign proteins, antibodies, immune response, affected person, to develop allergy, allergen, sneezing, shortness of breath, pain over the sinuses, skin rashes, swelling of lips and face, hives, abdominal cramps, cough, thick mucus secretions, weakness, difficulty in swallowing, life-threatening reaction, clogging up of airways, itching, unconsciousness.

# Exercise 4. Read and translate the text: ALLERGY

Allergies are over-reactions of the immune system in certain individuals to seemingly and generally harmless foreign proteins and substances.

Allergies usually do not occur at the first exposure. When a person is exposed to an allergen for the first time, the body develops molecules called antibodies against the invading proteins. This is called an immune response.

When exposed to the allergen again the immune system produces large amounts of antibodies that lead to break down of mast cells that contain chemicals like histamine. This leads to the features of allergies.

This process is known as sensitization. Sensitization may take days to years. Sometimes sensitization develops as the person affected shows symptoms but never fully develops the allergy to the allergen.

Symptoms of allergy include: sneezing, shortness of breath, wheezing, runny nose and eyes, pain over the sinuses (at the bridge of the nose, near the eyes, over cheeks and at the forehead), coughing, skin rashes (hives), swelling of the lips or face, itching eyes, ears, lips, throat and roof of the mouth, nausea, vomiting, abdominal cramps and diarrhea.

Common allergens include pollen, animal dander, fungal spores or molds, dust mites etc. There is severe wheezing, shortness of breath, cough and thick mucus secretions.

When allergic reaction is life-threatening or severe it is termed anaphylaxis or anaphylactic shock. Anaphylaxis involves the whole body.

Anaphylaxis involves: swelling of the throat and mouth and clogging up of airways leading to difficulty breathing, difficulty in speaking or swallowing, rash and itching elsewhere in the body, weakness and collapse often with unconsciousness due to sudden fall in blood pressure. Anaphylaxis requires urgent emergency management.

### **Exercise 5. Answer the questions:**

- 1. What is allergy?
- 2. When do allergies occur?
- 3. What is sensitization?
- 4. What may a person be allergic to?
- 5. What are the common symptoms of allergy?
- 6. How is severe allergic reaction called?
- 7. What does such a reaction involve?
- 8. Why does anaphylaxis require urgent emergency management?

#### **Exercise 6. Give English equivalents to the word combinations:**

загрозливі для життя алергічні реакції, висипання і свербіж, різке зниження кров'яного тиску, нудота і блювання, кропивниця, чхання й нежить, імунна реакція, бути під впливом алергену, важкість під час говоріння й ковтання, задишка й хрипіння, густий слизовий секрет, квітковий пилок, хімічні речовини, пліснява і кліщі.

#### **Exercise 7. Put the questions to the underlined words:**

- 1. <u>Mosquito bite allergy</u> symptoms include itching, hives, and swelling.
- 2. While environment plays a role in allergy development, there is a greater risk of developing allergic conditions if a person has a family history of allergy.
  - 3. Testing of the skin or blood may be useful <u>in certain cases</u>.
  - 4. In the developed world about 20% of people are affected by allergic rhinitis.
- 5. Allergic reactions can result from f<u>oods</u>, insect stings, and reactions to medications.
  - 6. Rates of many allergic diseases appear to be increasing.
  - 7. In severe reactions epinephrine is recommended.
- 8. Inhaled allergens can also lead to <u>increased production of mucus in the lungs</u>, shortness of breath, coughing, and wheezing.

## Exercise 8. Open the brackets, using the verbs in the correct tense and voice forms:

- 1. Food allergies or food intolerances (to affect) nearly everyone at some point.
- 2. People often have an unpleasant reaction to something they (to eat) and wonder if they (to have) a food allergy.
- 3. If you (to suffer) from a milk allergy, strictly avoiding milk and food containing milk and milk products (to be) the only way to prevent a reaction, which (to include) immediate wheezing, vomiting, and hives.
- 4. Egg allergies are more common in children than in adults and reaction (to range) from mild to severe.
- 5. If a person (to be) allergic to any wheat protein, he should strictly (to avoid) wheat and wheat products, which (to include) stomach upset, eczema, allergic rhinitis, bronchospasm and even anaphylaxis.
- 6. Peanut allergies (to affect) about 4 percent of adults and 6 percent of children.
- 7. A single ragweed plant (to create) up to a billion pollen particles in a year, affecting people with ragweed allergies, namely stuffy sinuses.
- 8. While all allergy symptoms (to cause) by a hypersensitive response to an otherwise harmless substance, not all allergies (to be) the same.

## Exercise 10. Read the text and be ready to discuss it.

Blood allergy tests

For assessing the presence of allergen-specific IgE antibodies, allergy skin testing is preferred over blood allergy tests because it is more sensitive and specific, simpler to use, and less expensive. Skin testing is also known as "puncture testing" and "prick testing" due to the series of tiny puncture or pricks made into the patient's skin. Small amounts of suspected allergens and/or their extracts (pollen, grass, mite proteins, peanut extract, etc.) are introduced to sites on the skin marked with pen or dye (the ink/dye should be carefully selected, lest it cause an allergic response itself). A small plastic or metal device is used to puncture or prick the skin. Sometimes, the allergens are injected "intradermally" into the patient's skin, with a needle and syringe. Common areas for testing include the inside forearm and the back. If the patient is

allergic to the substance, then a visible inflammatory reaction will usually occur within 30 minutes. This response will range from slight reddening of the skin to a full-blown hive (called "wheal and flare") in more sensitive patients similar to a mosquito bite. Interpretation of the results of the skin prick test is normally done by allergists on a scale of severity, with +/- meaning borderline reactivity, and 4+ being a large reaction. Increasingly, allergists are measuring and recording the diameter of the wheal and flare reaction. Interpretation by well-trained allergists is often guided by relevant literature. Some patients may believe they have determined their own allergic sensitivity from observation, but a skin test has been shown to be much better than patient observation to detect allergy.

If a serious life threatening anaphylactic reaction has brought a patient in for evaluation, some allergists will prefer an initial blood test prior to performing the skin prick test. Skin tests may not be an option if the patient has widespread skin disease or has taken antihistamines sometime the last several days.

#### **Points for discussion**

How is skin testing carried out?

What is response to skin testing like?

What test is used in anaphylactic reaction?

#### **Test**

- 1. Allergy is an increased sensitivity to ...
- a) dust b) allergens c) insect bites d) skin irritation e) mosquito
- 2. When immune system is exposed to allergens, it produces...
- a) antibodies b) allergic reaction c) itching d) sneezing e) coughing
- 3. The substances responsible for allergy must be ...
- a) excluded b) identified c) exposed d) obtained e) consumed
- 4. ... is an acute allergic reaction.
- a) collapse b) stroke c) anaphylaxis d) sneezing e) itching
- 5. swelling of the throat and mouth and clogging up of airways lead to difficulty breathing, difficulty in speaking or swallowing
  - a) Coughing b) difficult breathing c) expelling foreign matters d) rash e) spots
  - 6. Some allergists will prefer an initial blood test prior to performing the ... test.
  - a) urine b) skin prick c) sputum d) probe e) saliva
  - 7. Allergic parents are.... to have allergic children.
  - a) less likely b) can have c) more likely d) usually e) surely
- 8. Allergic diseases .... by inappropriate immunological responses to harmless antigens.
  - a) lead to b) trigger c) are caused d) are reached e) are provoke
  - 9. The use of antibacterial cleaning products has also been associated with

higher ... of asthma.

- a) occurrence
- b) case
- c) incidence
- d) appearance e) existence
- Effective management of allergic diseases relies ... the ability to make an accurate diagnosis.
  - a) of
- b) for
- c) in
- d) on
- e) –

#### AQUIRED IMMUNE DEFICIENCY SYNDROM (AIDS)

**Exercise 1. Active vocabulary:** 

contaminate, v	[kən'tæmineit]	забруднювати, заражати
deficiency, n	[dıˈfɪʃənsı]	недостатність
failure, <i>n</i>	['feiljə]	Неспроможність, розлад
life-threatening, adj	[laɪf ˈθretənɪŋ]	загрозливий для життя
latency, adj	['leit(ə)nsi]	прихований стан, латентність
malignant, adj	[məˈlignənt]	злоякісний
rash, n	[ræʃ	висип, висипання
strain, n	[strein]	штам
susceptible, adj	[səˈsɛptəbəl]	вразливий
thrive (throve; thriven), v	[θτλίν/ θτουν/ θτιν(ə)n]	процвітати
transfusion, <i>n</i>	[træns'fju:3:(ə)n]	переливання
transmission, n	[trænz'miə(ə)n]	розповсюдження
trigger, v	['trigə]	пустити в хід
tumour, n	[ˈtjuːmə]	пухлина, новоутворення

#### **Exercise 2. Read the following paying attention to the rules of reading:**

- -ea- [i:]: sick-leave, treatment, weak, speak, heat;
- -ea- [e]: head, bread, dead, death, health;
- -cian [ʃ(ə)n]: physician, obstetrician, pediatrician, phthisiatrician, musician;
- -tion [ (3)n ]: examination, administration, medication, combination, injection;
- -sis (sing.) [sis] —> -ses (pl.) [siz]: analysis analyses, diagnosis diagnoses, crisis crises, synthesis syntheses, thesis theses.

**Exercise 3. Complete the table with missing forms:** 

Verb	Noun	Adjective
to infect		
	destruction	
		transmissible
	inflammation	
		administrative
to develop		
		inclusive
	cause	
to involve		

# Exercise 4. Read the word-combinations and translate them into your native language:

A progressive failure of the immune system, life-threatening opportunistic infections, to thrive cancers, malignant tumours, a specific type of cells called a T helper, to trigger the immune system to infections, to share needles for IV drugs, to be susceptible to other diseases, transfusions of contaminated blood, swollen lymph nodes, a latency stage.

# Exercise 5. Read and translate the text: AQUIRED IMMUNE DEFICIENCY SYNDROM

Human immunodeficiency virus (HIV) is a lentivirus (a member of the retrovirus family) that causes acquired immunodeficiency syndrome (AIDS), a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive.

HIV infection in humans is considered pandemic by the World Health Organization (WHO). HIV infects about 0,6 % of the world's population. Nearly 33,4 million people worldwide, including 2,1 million children are living with HIV/AIDS nowadays.

Two main strains of the HIV, HIV-1 and HIV-2, cause AIDS. HIV-1 is more common in the Western Hemisphere, Europe, Asia and most of Africa. Most untreated people infected with HIV-1 eventually leads to AIDS. These individuals mostly die from opportunistic infections or malignant tumours associated with the progressive failure of the immune system. HIV-2 is more prevalent in West Africa: it is transmitted less easily and progresses less quickly to AIDS than HIV-1.In both strains, the virus may persist at low levels for years in a host without causing disease. The only sign of infection will be the presence of antibodies against the virus. Once immunodeficiency occurs, if left untreated, death usually follows within 2 to 3 years of the first onset of symptoms. The HIV itself doesn't kill the patient. It destroys the immune system, leaving the patient susceptible to other diseases, especially certain types of cancer and pneumonia. These diseases are the immediate causes of death.

HIV infects a specific type of cells called a T helper, but mainly it attacks T helper cells that have a protein known as CD4. This kind of cells is essential in triggering the immune system to infections or other foreign materials. After enough CD4 cells are destroyed, the body is no longer able to fight off infection or destroy cancerous cells.

Transmission. The AIDS virus is transmitted through bodily fluids such as blood, breast milk, etc. Casual contact with the infected person doesn't result in the transmission of the virus. The most efficient methods of HIV transmission include sexual, sharing needles for IV drugs, and receiving transfusions of contaminated blood or blood products. An infected mother may pass the virus to her unborn child. Susceptibility to HIV infection increases if there is a break in the skin or mucous membrane, which allows the virus to enter the blood stream.

The stages of HIV infection are acute infection (also known as primary infection), latency and AIDS. During 2-4 weeks post-exposure a person may develop an influenza-like illness called HIV acute infection the symptoms of which may include fever, swollen lymph nodes, pharyngitis, rash etc and last for several weeks. The latency stage involves few or no symptoms at all and can last from 2 weeks to 20 years. AIDS, the final stage of HIV infection, is defined by low CD4+T cells count, various opportunistic infections and cancers.

**Exercise 6. Match the English word-combinations with their equivalents:** 

1. failure of the immune system	а. перша проява симптомів
2. opportunistic infections	b. померти від злоякісних пухлин

3. the presence of antibodies against	с. схильний до інших захворювань
the virus	
4. the first onset of symptoms	d. запустити імунну систему
5. susceptible to other diseases	е. загрозливі для життя інфекції
6. to trigger the immune system	f. отримати переливання зараженої
	крові
7. to die from malignant tumours	g. прогресивне пошкодження
	імунної системи
8. life-threatening infections	h. розлад роботи імунної системи
9. to receive transfusions of	і. опортуністичні інфекції
contaminated blood	
10. progressive failure of the immune	ј. наявність антитіл проти вірусу
system	

### **Exercise 7. Answer the following questions:**

- 1. What is AIDS?
- 2. What are the two main strains of HIV?
- 3. What is the difference between these two strains?
- 4. What organs does HIV damage?
- 5. Why can't the infected organism fight off infections?
- 6. How is HIV transmitted?
- 7. What are the stages of HIV infection?
- 8. What symptoms and diseases is AIDS characterized by?

### **Exercise 8. Match English word combinations with their definitions:**

a. immune	1. the period between infection with a virus or other		
deficiency	microorganism and the onset of symptoms		
b. susceptible	2. the protein produced in response to and counteracting a		
	specific antigen.		
c. antiretroviral	3. failure of the immune system to protect the body adequately		
	from infection		
d. tumour	4. It affects patients only or chiefly when the immune system is		
	depressed		
e. antibody	5. a virus which reduces people's resistance to illness		
f. latency	6. denoting drugs which inhibit the activity of retroviruses		
g. HIV	7. likely or liable to be influenced or harmed by a particular		
	substance		
h. opportunistic	8. a swelling of a part of the body, generally without		
infection	inflammation, caused by an abnormal growth of tissue, whether		
benign or malignant			

# Exercise 9. Find synonyms to the following words and word-combinations in the text:

Insufficiency, to spread, neoplasm, damage, perspiration, medicine, high temperature, grippe, potentially fatal disease, liable to diseases, to get, vulnerable,

eruptions.

#### Exercise 10. Fill in the blanks with the words from the box:

AIDS, transmitted, immune, HIV, infected, opportunistic, transfusion, protective.

AIDS is the worst sexually ... disease. It is caused by ..., which attacks the immune system. The ... system plays an important role in fighting off the diseases. HIV is transmitted through direct contact with the ... person's bodily fluids. HIV is also transmitted by ... of contaminated blood. HIV reduces the ... function of the immune system. When the immune system breaks down, the person will suffer many infections called ... infections. This is the last stage of HIV infection which is called

#### Exercise 11. Translate the parts of a sentence given in *italics*:

- 1. Ryan White the 1st teenager patient who was infected with AIDS when *отримував переливання зараженої крові* as part of his treatment.
- 2. AIDS doesn't kill the patients, they *помирають від злоякісних пухлин* or different infections.
  - 3. HIV destroys T helper cells that *запускають імунну систему* to infections.
- 4. HIV causes розлад роботи імунної системи that makes it схильний до інших захворювань.
  - 5. The standard HIV test detects наявність антитіл проти вірусу.
- 6. Many years may pass since the initial infection before *перша проява* симптомів.
- 7. AIDS is characterized by *опортуністичними інфекціями*, such as cancers, pneumonia, and tuberculosis.
- 8. Once the immunodeficiency occurs, *загрозливі для життя інфекції* тау аppear that can be fatal for a person with the weakened immune system.

# Exercise 12. Fill in the blanks with the appropriate prepositions from the box:

from, of, in, of, with, by, to, with, to

Sharing and reusing syringes contaminated ... HIV infected blood represents a major risk for infection with HIV. Needle sharing is the cause ... one third of all new HIV infections ... North America, China and Eastern Europe. The risk ... being infected with HIV from a single prick ... a needle that has been used on an HIV infected person is thought to be about 1 in 150. Post-exposure prophylaxis ... anti-HIV drugs can further reduce the risk. This rout can also affect people who give and receive tattoo and piercing.

According ... the WHO, the overwhelming majority ... the world population does not have access ... safe blood and between 5% and 10% of the world's HIV infections come ... transfusions of infected blood and blood products.

### Exercise 13. Translate the sentences, paying attention to the use of tenses:

1. HIV-1 **occurs** more often in the Western Hemisphere, Europe, Asia and most of Africa.

- 2. The patient was diagnosed HIV-1 infection 12 years ago.
- 3. Before admission to the hospital, the patient **had not been** in medical care for approximately 6 months.
  - 4. The patient **discontinued** antiretroviral and antihypertensive medication.
  - 5. The blood analysis will be made in half an hour on an empty stomach.
  - 6. The only medication, that he is taking, is Dapsone for prophylaxis.
  - 7. The patient **has** just **been brought** into the postoperative ward.
  - 8. The patient has been suffering from unexplained fatigue for several weeks.

### Exercise 14. Open the brackets and translate the sentences:

- 1. The physician said that previous sanatorium treatment (to be) helpful.
- 2. The patient said he never (to experience) such an acute pain before.
- 3. The patient can't be discharged from the hospital because he not (to recover) yet.
- 4. The doctor (to write) a prescription when a nurse (to open) the door and (to ask) what injection to make.
  - 5. He (to loose) consciousness and (to moan) all the time.
  - 6. The doctor (to make) a diagnosis after he gets the findings of your blood test.
  - 7. The administration (to change), if he doesn't feel better tomorrow.
  - 8. Water-soluble vitamins (to excrete) out of the body within one day.

### **Exercise 15. Put questions to the underlined phrases:**

- 1. Patients with HIV are administered antiretroviral drugs.
- 2. <u>Symptoms</u> vary with the severity of the inflammation.
- 3. We had to take the patient for an operation immediately to prevent the rupture of the appendix.
  - 4. The patient had a <u>slightly elevated body temperature</u>.
  - 5. The effectiveness of the immune system will <u>slowly</u> be reduced by HIV.
  - 6. The viruses have produced substances that weaken the immune system.
  - 7. Scientists are observing AIDS in an increasing number of infants.
- 8. As symptoms had been present for a long time, the patient was administered antibiotics.

## **Exercise 16. Translate into English:**

- 1. СНІД, або Синдром набутого імунодефіциту тяжке інфекційне захворювання, спричинене вірусом імунодефіциту людини.
- 2. ВІЛ уражає імунну систему людини та знижує протидію організму захворюванням.
- 3. СНІД не  $\epsilon$  смертельною хворобою, але його вірус в організмі вплива $\epsilon$  на імунну систему й навіть простий нежить може призвести до смерті.
  - 4. ВІЛ може передатися при незахищеному статевому контакті.
- 5. ВІЛ може передаватися через кров: переливання зараженої крові, використання брудних шприців, тощо.
- 6. ВІЛ може передаватися від ВІЛ-позитивної матері до дитини під час вагітності, пологів або годування груддю.
  - 7. Період «вікна» час, коли ВІЛ присутній у крові людини, але аналіз на

антитіла до нього ще є негативним.

8. Період «вікна» становить від двох до шести місяців й людина може передавати вірус іншим.

### Завдання для самостійної роботи студентів

### І. Перекладіть словосполучення на англійську мову:

- 1. лихоманка та висип
- 2. перша проява симптомів
- 3. схильний до інших захворювань
- 4. загрозливі для життя інфекції
- 5. переливання зараженої крові
- 6. розлад роботи імунної системи
- 7. наявність антитіл проти вірусу
- 8. вірус імунодефіциту
- 9. померти від злоякісних пухлин
- 10. прогресивне пошкодження імунної системи

## II. Дайте відповідь на запитання:

- 1. What is AIDS?
- 2. What organs does HIV damage?
- 3. How is HIV transmitted?
- 4. What are the stages of HIV infection?
- 5. What symptoms and diseases is AIDS characterized by?

### **III.** Лайте визначення : СНІЛ

d) respiratory tract infections

 and American commercial and an analysis of the commercial analysis of the commercial and an analysis of the
Test  1. AIDS progressively the effectiveness of the immune system. a) increases b) improves c) reduces d) strengthens e) aggravates
<ul> <li>2. HIV is transmitted through</li> <li>a) direct contact and patient's things</li> <li>b) respiratory tract</li> <li>c) blood, semen and breast milk</li> <li>d) animal's bites</li> <li>e) bites of mosquitoes</li> </ul>
3. There are stages of HIV infection recognized. a) 3 b) 2 c) 4 d) 5 e) 7
<ul><li>4. The stage leads eventually to an AIDS diagnosis.</li><li>a) initial b) latent c) infectious d) acute e) serious</li></ul>
5. HIV infection in humans is considered by the World Health Organization. a) endemic b) epidemic c) pandemic d) non-infectious e) all variants
<ul><li>6. People with AIDS die mostly of</li><li>a) constant fever</li><li>b) tuberculosis</li><li>c) opportunistic infections</li></ul>

b) tuberculosis

e) pneumonia

7. ... is more common in the Western Hemisphere, Europe, Asia and most of

c) opportunistic infections

Africa.

a) AIDS

b) HIV

c) HIV-1

d) HIV - 2

e) Hepatitis

8. HIV infects a specific type of cells called ....

a) a T helper b) CD-4

c) RNA

d) DNA

e) HIV

9. ... is transmitted less easily and progresses less quickly to AIDS.

a) HIV b) HIV -1 c) HIV -2

d) AIDS

e) all variants

10. Many people are unaware that they are infected with HIV because ....

a) they don't apply to a doctor

b) the latent period is long

c) they don't make blood tests

d) they don't take about their health

e) all variants are true

#### **INFLUENZA**

Exercise 1. Topic vocabulary:

complication, n	[aut'breik]	ускладнення	
congestion, n	[kən'd3estsən]	закладеність	
intervention, <i>n</i>	[intə'vensn]	втручання	
outbreak, n	[aut'breik]	спалах	
sign, n	['saiŋ]	ознака	
sinus, n	['sainəs]	пазуха	
species, n	['spi:ʃiz]	вид	
sputum, <i>n</i>	['spju:təm]	мокротиння	

# Exercise 2. Read the following transcriptions. Write them in words and give their Ukrainian equivalents:

[in'fekʃəs], [ə'kɛ:], ['vairəs], [ai'denti'fai], ['reindʒ], ['kof], [səb'said], ['noutisəbl], [ri'li:v], [énti'baiəutik], ['fri:kwentli], [énti'vairəlz], [i'mju:n], [ris'pairətəri], [ə'souʃieit], ['bri:ðiŋ], [prə'dʌktiv], [ə'proksimətli].

Exercise 3. Match the English word combinations with their Ukrainian euivalents and use them in the sentences of your own:

aichts and use them in the sentences of your own.			
1. outbreak of the disease	а) кашель з жовтувато-зеленим		
	мокротинням		
2. a wide range of animal species	b) послаблена імунна система		
3. nasal congestion and a sore thro	oat с) ознаки вторинної інфекції		
4. to relive symptoms	d) потребувати медичного		
	втручання		
5. weakened immune system	е) інфекції вух та носових пазух		
6. to be at risk for develop	oing f) полегшувати симптоми		
complications			
7. signs of secondary infections	g) спалах захворювання		
8. cough with yellowish gr	reen h) бути в небезпеці розвитку		
sputum	ускладнення		
9. sinus or ear infections	і) закладеність носу та хворе горло		
10. to require medical intervention	ј) широкий діапазон видів тварин		
9. sinus or ear infections	і) закладеність носу та хворе горло		

# Exercise 4. Read and translate the text: INFLUENZA

Influenza is an infectious respiratory disease. The causative agent is a virus. Influenza outbreaks occur suddenly and infection spreads rapidly.

There are three types of influenza viruses, identified as A, B, and C. Influenza A can infect humans, pigs, horses, and birds, but only humans are infected by types B and C.

Typical influenza symptoms include weakness, headache, dry cough, chills, and fever. Symptoms can be relieved with bed rest, steam inhalations, and pain relievers. As the fever subsides, nasal congestion and a sore throat become noticeable.

Since influenza is a viral infection, antibiotics are useless in treating it. However, antibiotics are frequently used to treat secondary infections. To be effective, doctor should begin treatment no later than two days after symptoms appear. Antivirals may be useful in treating patients who have weakened immune system or who are at risk for developing serious complications.

Influenza complications usually arise from bacterial infections of the lower respiratory tract. Signs of a secondary respiratory infection include high fever, chills, chest pain associated with breathing, and a productive cough with yellowish green sputum. If these symptoms appear, medical treatment is necessary. Other secondary infections, such as sinus or ear infections, heart and lung problems, may also require medical intervention. Influenza is a serious disease, and approximately 1 in 1,000 cases is fatal.

# Exercise 5. Answer the questions according to the information from the text:

- 1. What kind of disease is flu?
- 2. What types of influenza do you know?
- 3. What are the symptoms of flu?
- 4. How can flu symptoms be relieved?
- 5. What prognosis can be made in case of flu? What complications may appear?

Exercise 6. Match the words from the left column with their synonyms from the right one:

5111 01101		
1. to infect	a) to lead to	
2. to occur	b) aggravation	
3. to cause	c) helpful	
4. to subside	d) to appear	
5. congestion	e) lethal	
6. complication	f) obstruction	
7. treatment	g) to pass off	
8. fatal	h) to contract with	
9. useful	i) visible	
10. noticeable	j) management	

# **Exercise 7. Translate the following word combinations from Ukrainian into English:**

Спалах інфекцій верхніх дихальних шляхів, швидко розповсюджуватися, сухий кашель та озноб, полегшувати симптоми знеболюючими, помітне запалення горла, лікувати вторинні інфекції, противірусні ліки для пацієнтів з послабленою імунною системою, виникати внаслідок бактеріальних інфекцій, біль в грудній клітині під час дихання, потребувати медичного втручання, смертельні випадки.

Exercise 8. Read the abstracts about respiratory diseases. Match the words from the table with the correct paragraphs:

Asthma, bronchitis, emphysema, lung cancer, pneumonia

- 1. An inflammation of the lung caused by infection with bacteria or viruses which sometimes develops from a simple viral cold or influenza.
- 2. This is a long-term condition that occurs when the main air passages of the lungs, the bronchial tubes, become inflamed and go into spasm. Extra mucus is also producedalong the lining of the bronchi. The spasms and mucus accumulation blog the respiratory passage.
- 3. This is the uncontrolled growth of abnormal cells in one or both of the lungs. These abnormal cells reproduce rapidly and form tumours which destroy a part of the lung so that it does not work properly.
- 4. This is the abnormal enlargement of alveoli in the lung which also causes them to loose elasticity as a result the alveoli are unable to efficiently exchange gases between lungs and blood.
- 5. This involves an inflammation of the bronchial tubes which causes a persistent cough and produces a significant amount of phlegm (['flem] харкотиння, слиз) and mucus.

#### **Exercise 9. Fill in the gaps with appropriate preposition:**

In, at, on (2), against, for, during, with, among

- 1. The influenza vaccine is an annual vaccine to protect ... the highly variable influenza virus.
- 2. Influenza vaccination is the most effective method ... preventing influenza virus infection and its potentially severe complications.
  - 3. Vaccines are used not only ... humans.
- 4. Vaccination is associated ... reductions in influenza-related respiratory illnesses, hospitalization and death among persons ... high risk, otits media ... among children.
- 5. Although influenza vaccination levels increased substantially ... the 1990s, further improvements in vaccine coverage levels are needed.
- 6. Inproved influenza countermeasures require basic research ... how viruses enter cells, replicate, mutate, and evolve into new strains.
- 7. Many groups worldwide are working ... a universal flu vaccine that will not need changing each year.

### Exercise 10. Put questions to the underlined words:

- 1. The earliest existing descriptions of influenza were written nearly 2.500 year ago by <u>ancient Greek physician Hippocrates</u>.
- 2. <u>Individuals who suffer from frequent flu and colds</u> often tend to have bronchitis.
- 3. Influenza is characterized by <u>high fever</u>, chills, chest pain, and productive <u>cough with yellowish green sputum</u>.
- 4. A worldwide seasonal influenza epidemic kills <u>250.000 to 500.000</u> people each year.
- 5. The rapid development, production, and distribution of pandemic influenza vaccines saved millions of lives during influenza pandemics.
  - 6. Most people completely recover from <u>influenza infection</u> within 2 weeks.

# Exercise 11. Read the case histories. Open the brackets in the correct tense and voice. Translate into your native language:

A 37-year old female (to admit) to the hospital with tachypnea ([tæ'kipniə] – поверхове дихання), and acute shortness of breath with wheezing. Auscultation (to reveal) decreased breath sounds with inspiratory and expiratory wheezing and the patient (to cough up) small amounts of white sputum.

The patient was a 7-week-old male who (to transfer) to the hospital with a 10-day history of choking (задуха), progressing to his turning red and grasping for breath. Over the prior 2 days, he also (to have) three episodes of vomiting in association with his coughing. His physical examination (to show) both tachycardia and tachypnea. There was no evidence of tracheal abnormalities.

The patient was a 15-year-old male with a history of sickle cell disease. He (to admit) to hospital with a 4-day history of a progressive, productive cough and 2 days of fevers. On admission, his temperature was 41.1°C, his respiratory rate was 40/min, pulse was 120 beats/min, and his blood pressure was 80/40 mmHg. He also (to have) a mild respiratory distress (дихальна недостатність). A chest radiograph (to demonstrate) a right lower lobe infiltrate.

### Exercise 12. Describe the term "influenza" according to the table:

1.	General characteristics	
2.	Types	
3.	Symptoms	
4.	Treatment	
5.	Complications	

#### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть та вивчіть наступні словосполучення:

- 1. спалах інфекцій верхніх дихальних шляхів
- 2. сухий кашель та озноб
- 3. лікувати вторинні інфекції
- 4. потребувати медичного втручання
- 5. виникати внаслідок бактеріальних інфекцій
- 6. кашель з жовтувато-зеленим мокротинням
- 7. закладеність носу та хворе горло
- 8. спалах захворювання
- 9. потребувати медичного втручання
- 10.інфекції вух та носових пазух

#### **II.** Дайте відповіді на наступні питання:

- 1. What kind of disease is flu?
- 2. What types of influenza do you know?
- 3. What are the symptoms of flu?
- 4. How can flu symptoms be relieved?
- 5. What prognosis can be made in case of flu? What complications may appear?

#### **III.** Дайте визначення: грип

#### **TETANUS**

Exercise 1. Topic Vocabulary.

afebrile, adj	[ei 'fi:bril]	безгарячковий
bacillus (pl. bacilli), n	[bəˈsɪl.əs]	бацила, паличка
become delirious	[dɪˈlɪr.i.əs]	стати шаленим, божевільним
clenched, adj	[klentst]	міцно стиснутий
draw up, v	[dro:]	витягувати
ensue, v	[ɪnˈsjuː]	виникати, випливати
height of disease	[haɪt]	розпал (пік) хвороби
lessen, v	['les.ən]	скорочувати, зменшуватися
lockjaw, n	['lɒk.dʒɔ:]	тризм щелепи, правець
nightmare, n	[ˈnaɪt.meər]	кошмар, жах, страшний сон
opisthotonus, n	[ou 'pisθətonəs]	опістотонус
protruded (lips)	[prəˈtruːdid]	випнуті (губи)
seizure, n	[ˈsiː.ʒər]	приступ, напад, припадок
trismus, n	[trizməs]	тризм ( судорожне зціплення
		щелеп)
vague, adj	[veɪg]	нечіткий, неясний, туманний

## Exercise 2. Read the words paying attention to the rules of reading:

c,s,t, before ia, ie, io [ ]

Position, sufficient, remission, initial, patient, urination, expression, artificial, potential, incubation, special, infectious, facial, essential, permission, insufficient, motion, deficiency.

## Exercise 3. Form the words with the help of negative prefixes. Translate them into Russian:

- dis: like, function, connect, agree, locate, place, continue, section, solvent.
- ir: regular, responsible, relevant, resistible, radiation, reversible, reducible.
- im: possible, practical, mobile, moral, balance, maturity, potency, purity.
- un: necessary, reliable, fortunately, consciousness, dress, infected, mixed.
- mal: formation, nutrition, occlusion, position, treatment, presentation, rotation.

# Exercise 4. Read the words with the same root. State the part of speech and translate them into Russian:

Face – facial, slow – slowly; connect – connection; pelvis – pelvic; compose – composition; rapid – rapidly; base – basic; recover – recovery; remove – removal; survive – survival; tender – tenderness, restless – restlessness; breath – breathing.

## **Exercise 5. Translate the following word combinations:**

Incubation period; infectious disease; typical facial expression, urination; in case; to gain entrance into the body; painful spasms; characteristic picture; angles of the mouth; severe headache; masticating muscles; severe pain; attack; fever.

### Exercise 6. Translate the following sentences. Pay attention to the sentences

#### with construction: one (ones), that of (those of).

- 1. The condition of patient V. is worse than that of patient C.
- 2. The number of the vertebrae in the coccyx is less than the number of those in the back.
  - 3. The bones of the lower extremities are longer than those of the upper ones.
  - 4. This lecture is more interesting than the one I attended last week.
  - 5. The walls of the left atrium are thicker than those of the right.
  - 6. Some muscles are more elastic than the other ones.
  - 7. I will examine your patient and that of Dr. Ivanov.
  - 8. The wards in the new hospital are better equipped than those in our old one.

# Exercise 7. Read and translate the text: TETANUS

Tetanus is an acute infectious disease characterized by painful spasms of the muscles and caused by the Bacillus tetani which gains entrance into the body through a wound or break in the skin. When they enter a deep wound, spores of the bacilli may produce a powerful toxin, tetanospasmin, which actively impairs motor neurons, nerves that control muscles. The effect of the toxin on motor neurons can cause muscle stiffness and spasms — the major signs of tetanus.

Doctors diagnose tetanus based on a physical examination, medical and immunization history, and the signs and symptoms of muscle spasms, stiffness and pain. Laboratory tests generally aren't helpful for diagnosing tetanus.

The incubation period varies on an average from 5 to 15 days. In general, the shorter the incubation period the more serious is the disease. The earliest symptoms are vague. The patient is restless, irritable; he suffers from nightmare, and may become delirious. Severe headache, difficulty in urination, and sweating may be noted. In the majority of cases following a short period when there is pain in the back of the neck and in the muscles of the jaw, a tonic spasm of the masticating muscles occurs so that the patient is unable to open his mouth, producing the characteristic picture known as lockjaw (trismus). Gradually all muscles of the body become affected except those of the forearm and of the hand. At the height of the disease there occurs the typical facial expression known as risus sardonicus, where the patient appears to be laughing, due to the drawing up of the angles of the mouth. The brows are contracted, the eyes are partly closed, the teeth are clenched tightly and the lips are slightly protruded. The body is arched in the position known as opisthotonus. Upon the slightest stimulus the entire body may go into a convulsive seizure of the utmost severity, accompanied by severe pain.

There is no characteristic temperature; the patient may be afebrile or ran a fever as high as 104°F during the attacks.

Complications include broken bones (the severity of spasms may cause the spine and other bones to break), disability (prolonged immobility due to the use of drugs can lead to permanent disability) and death. Death may ensue within the first 48 hours or at any time up to one week after onset. If the patient survives the first week, his chances of recovery are greatly improved, the spasms gradually lessening in frequency and severity.

Since there's no cure for tetanus, treatment consists of wound care, medications to ease symptoms and supportive care. Cleaning the wound is essential in preventing growth of tetanus spores. This involves removing dirt, foreign objects and dead tissue from the wound. Some drugs (e.g. antitoxins, antibiotics, vaccines and sedatives) are also prescribed.

### **Exercise 8. Answer the following questions:**

- 1. What is tetanus caused by?
- 2. What examinations are necessary to diagnose tetanus?
- 3. What is the incubation period of tetanus?
- 4. What are the symptoms of tetanus?
- 5. When does a tonic spasm of masticating muscles occur?
- 6. How can you describe such typical facial expression known Risus Sardonicus?
  - 7. When are the changes of recovery greatly improved?
  - 8. How does Bacillus tetani gain entrance into the body?

# **Exercise 9. Translate the following word combinations:**

Супроводжуватися сильним болем; спазм жувальних м'язів; проникати крізь рану; характерна картина хвороби; поступово зменшуватися по частоті та важкості; інкубаційний період хвороби; міцно стиснуті зуби; пік хвороби; сардонічний сміх; сильнодіюча отрута; виробляти сильнодіючі токсини; видалити відмерлу тканину з рани; погіршувати роботу моторних нейронів.

# **Exercise 10. Match medical terms with the proper definitions:**

Exercise 10: Materi incureur terms with the proper definitions.		
1. tetanus	a) Spasm of the jaw muscles, keeping the jaw tightly closed.	
2. tetani	b) An acute infectious disease, affecting the nervous system,	
3. toxin	caused by the bacterium Clostridium tetani.	
4. urination	c) The periodic discharge of urine from the bladder through the	
5. spasm	urethra.	
6. trismus	d) Spasm and twitching of the muscles, particularly those of the	
o. trisilius	face, hands, and feet.	
	e) A poison produced by a living organism, especially by a	
	bacterium.	
	f) A sustained involuntary muscular contraction, which may	
	occur either as part of a generalized disorder, such as a spastic	
	paralysis, or as a local response to an otherwise unconnected	
	painful condition.	

# **Exercise 11. Complete the following sentences using the text:**

- 1. Tetanus is an acute infectious disease characterized by ....
- 2. Severe headache, difficulty in urination, and sweating ....
- 3. The patient is unable to open his mouth, producing the ....
- 4. Gradually all muscles of the body become ... of the forearm and of the hand.
- 5. ... there occurs the typical facial expression known as risus sardonicus.

- 6. The body ... known as opisthotonus.
- 7. The patient may be ...during the attacks.
- 8. Death may ensue within ... after onset.

### Exercise 12. Read the sentences and say whether they are true to the text:

- 1. Tetanus is an acute inherited disease characterized by painful spasms of the muscles.
- 2. Tetanus is caused by the Bacillus tetani which gains entrance into the body through the blood.
  - 3. The tetanus bacillus produces a toxin.
  - 4. The incubation period varies on an average from 15 to 25 days.
- 5. Gradually all muscles of the body become affected inclusive those of the forearm and of the hand.
- 6. The typical facial expression known as risus sardonicus, where the patient appears to be crying, due to the drawing up of the angles of the mouth.
  - 7. The body is arched in the position known as opisthotonus.
- 8. There is no characteristic temperature; the patient may be afebrile or ran a fever as high as 40,00°C during the attacks.

# **Exercise 13. Translate Russian sentences into English using Complex Subject Construction:**

- 1. Відомо, що правець  $\epsilon$  гострим хронічним захворюванням, яке характеризується болісними спазмами м'язів.
- 2. Виявляється, що при захворюванні Bacillus tetani проникає в організм через рану чи розрив шкіри.
  - 3. Відомо, що інкубаційний період хвороби триває від 5 до 15 днів.
- 4. Ймовірно, що першими симптомами правця будуть збудженй стан та страшні сни.
- 5. Кажуть, що в пік хвороби у пацієнта часто траплялись приступи і була висока температура.
- 6. Без сумніву, шанси пацієнта на одужання збільшуються, якщо він виживає в перший тиждень.
- 7. Кажуть, що смерть може настати на протязі 48 годин або в будь-який інший час після початку приступу.
  - 8. Доведено, що деякі ліки можуть допомогти у лікуванні правця.

# **Exercise 14. Put questions to the underlined words:**

- 1. <u>Tetanus</u> is an acute infectious disease characterized by painful spasms of the muscles.
- 2. The Bacillus tetani gains entrance into the body through a wound or break in the skin.
  - 3. The tetanus bacillus produces <u>a toxin.</u>
- 4. <u>The patient</u> is restless, irritable and suffers from nightmare, and may become delirious.
- 5. <u>Gradually</u> all muscles of the body become affected except those of the forearm and of the hand.

- 6. At the height of the disease there occurs the typical facial expression known as risus sardonicus.
- 7. The patient appears to be laughing, due to the drawing up of the angles of the mouth.
  - 8. The patient may be <u>afebrile</u>.

# Exercise 15. Use the verbs in brackets in the appropriate tense. Translate them into Russian:

- 1. The incubation period is likely (to vary) on an average from 5 to 15 days in future.
  - 2. The patient (to suffer) from nightmare, and (to become) delirious.
- 3. At the height of the disease there (to occur) the typical facial expression known as risus sardonicus.
- 4. The brows (to contract), the teeth (to clench) tightly and the lips (to protrude) slightly.
- 5. Now the patient's body is reported (to arch) in the position known as opisthotonus.
- 6. Upon the slightest stimulus the entire body just (to go) into a convulsive seizure of the utmost severity, accompanied by severe pain.
- 7. It was said that the patient (to ran) a fever as high as 104°F during the attacks for a weak.
- 8. Death (to ensue) within the first 48 hours or at any time up to one week after onset.

Exercise 16. Describe the term "tetanus" according to the table:

1.	General characteristics	
2.	Symptoms	
3.	Analyses	
4.	Treatment	
5.	Complications	

# Завдання для самостійної роботи студентів (СРС)

# 1. Перекладіть та вивчіть наступні словосполучення:

- 1. характеризуватися болючими спазмами в м'язах
- 2. потрапити в організм через рану на шкірі
- 3. страждати від нічних кошмарів
- 4. біль у задній частині шиї і м'язах щелепи
- 5. міцно стиснуті зуби
- 6. злегка випнуті губи
- 7. поступово зменшуватися по частоті та важкості
- 8. інкубаційний період хвороби
- 9. сардонічний сміх
- 10. жувальні м'язи
- 2. Дайте відповіді на наступні питання:
- 1. What is the incubation period of tetanus?

2. What is tetanus caused by?
3. What is Risus Sardonicus?
4. How can Bacillus tetani enter the body?
5. What are the chances to recover when a person has tetanus?
3. Дайте визначення: правець

Test

1. Tetanus is caused by the ... which gains entrance into the body throughted the day of the day.

		Test	
1. Teta	nus is caused by the	which gains entranc	e into the body through a
wound or brea	ak in the skin.		
a) Baci	llus anthrax;	b) Bacillus tetani;	c) Bacillus drumstick;
d) Baci	llus gas-producing;	e) Bacillus Koch's.	
2. The :	ncubation period varie	es on an average	
a) from	5 to 10 days;	b) from 15 to 25 days;	c) from 5 to 25
days;			
d) from	1 to 5 days;	e) from 5 to 15 days.	
		able; nightmare, and e suffers from; c) h	may become delirious. ne suffering from;

4. In the majority of cases following a short period when there is pain..., a tonic spasm of the masticating muscles occurs so that the patient is unable to open his mouth, producing the characteristic picture known as lockjaw (trismus).

e) he suffered from.

- a) in the back of the head and in the muscles of the jaw;
- b) in the back of the neck and in the muscles of the face;
- c) in the back of the neck and in the joints of the leg;
- d) in the back of the neck and in the muscles of the jaw;
- e) in the back of the head and in the muscles of the trunk.
- 5. Gradually all muscles of the body become affected except ... the forearm and of the hand.
  - a) that of; b) these of; c) this of; d) of those; e) those of.
- 6. At the height of the disease there occurs the typical facial expression known as risus sardonicus, where..., due to the drawing up of the angles of the mouth.
  - a) the patient appears to be laughing;
  - b) the patients appears to be laughing;
  - c) the patient appears be laughing;

d) he is suffering from;

- d) the patient appears to laughing;
- e) the patient appears to be being laughing.
- 7. ...the slightest stimulus the entire body may go into a convulsive seizure of the utmost severity, accompanied by severe pain.
  - a) on; b) at; c) before; d) in; e) upon.
- 8. There is no characteristic temperature; the patient may be afebrile or ... during the attacks.
  - a) rans a fever as high as 104°F; b) ran a fever as high as 104°F;

- c) ranning a fever as high as 40°C; d) run a fever as high as 104°F;
- e) ran a fever as low as 104°F.
- 9. Death may ensue ... or at any time up to one week after onset.
- a) in the first 28 hours;
- b) within the first 48 hour;
- c) within first 48 hours;
- d) within the first 48 hours;
- e) after the first 48 hours.
- 10. ... the first week, his chances of recovery are greatly improved, the spasms gradually lessening in frequency and severity.
  - a) If the patients survives;
- b) If the patient survives;
- c) If the patient survive;
- d) If the patient survived;
- e) If the patient to survive.

#### **DIPHTHERIA**

Exercise 1. Topic Vocabulary:

Exercise 1: Topic vocabalary:			
apt to smth, adj	[æpt]	схильний	
culture, n	[ˈkʌltʃə(r)]	культура (бактерій)	
deleterious, adj	[ˌdelɪˈtɪəriəs]	шкідливий	
dissemination, n	[dɪˌsemɪˈneɪʃən]	розповсюдження	
dreadful, adj	[ˈdredfəl]	поганий, жахливий	
employment, n	[ımˈplɔɪmənt]	використання, застосування	
experience, v	[ıkˈspɪəriəns]	випробувати	
fibrin, n	[ˈfɪbrɪn]	фібрин	
mandatory, adj	['mændətəri]	обов'язковий, примусовий	
menace, n	['menəs]	загроза, небезпека	
pillar of fauces, n	['pɪlər əv 'fɔːsiːz]	піднебінні дужки	
predispose, v	['pri:dɪs'pəʊz]	привертати	
raw, <i>adj</i>	[rə:]	сирий, необроблений	
robust, adj	[rəu'b∧st]	дужий, здоровий	
stiffness, n	[ˈstɪfnəs]	оніміння, одубілість	
successive, adj	[sək'sesiv]	наступний	
susceptible, adj	[səˈsəptəbl]	сприйнятливий, вразливий	
temperate, adj	['tempərit]	помірний	

# Exercise 2. Read the word combinations and sentences with the new words and translate them into Ukrainian:

**Tract:** upper respiratory tract; urinary tract infection; gastrointestinal tract; reproductive tract.

**Effect:** deleterious effect; drug effect; adverse effect; therapeutic effect; visual effects.

**Disease:** contagious disease; inherited disease; nutritional disease; neoplastic disease

**Menace:** a menace to public health; a real menace; to speak with desperate menace; a menacing person.

Exercise 3. Complete the table with the missing words (you may need a dictionary):

J / -		
VERB	NOUN	ADJECTIVE
	formation	
		suspected
	production	
depend		
divide		
	care	

### **Exercise 4.Translate the following word combinations into Ukrainian:**

Dissemination, to be more liable to diphtheria, uneasiness in the throat, stiffness

of the back of the neck, membranous formation on pharyngeal tissues, the earliest objective manifestation of the disease, the most dreadful of all complications of diphtheria, the outcome of the disease, the soft palate and uvula.

# Exercise 5. Read and translate the text: DIPHTHERIA

Diphtheria is an acute contagious disease caused by specific organism bacillus diphtheria.

It is characterized by local inflammation with fibrin formation of the mucous membranes, usually of the upper respiratory tract, with production of a toxin which when absorbed into the blood stream may produce deleterious effects on various parts of the body, especially the heart and peripheral nerves.

The disease exists throughout the world but is more common in temperate zones and during the colder months, autumn and winter. It is commonly spread by direct contact which must be fairly intimate. Dissemination by third objects such as clothes, toys, etc. may also occur and carriage by milk has been reported many times. Healthy carriers may disseminate the disease to susceptible persons and thus constitute a menace to public health. Children appear to be more liable to diphtheria than adults; although the most robust people may be attacked and those whose health is weakened by any cause are especially predisposed.

The incubation period is three to ten days. The disease may be divided into three main forms according to the anatomical distribution of the membrane: a) faucial or pharyngeal; b) laryngeal; c) nasal.

The onset of the disease is insidious with relatively moderate temperature reaction. In general, following an incubation period of about two days, symptoms set in like those commonly accompanying a cold. A slight feeling of uneasiness in the throat is experienced along with some stiffness of the back of the neck. The earliest objective manifestation of the disease is the formation of a thin film of fibrin on the tonsils which increases in thickness to form characteristic yellowish-white or grayish-white pseudomembrane.

The throat appears to be reddened and somewhat swollen. If the pseudomembrane is forcibly removed, it is found to separate from the underlying true mucous membrane with difficulty and leaves a raw, bleeding surface on which in the untreated cases a fresh membrane rapidly reforms. The lesion tends to spread over the pillars and onto the soft palate and uvula. Hence any membranous formation on pharyngeal tissues should immediately be regarded as a suspicion of diphtheria.

Myocarditis is the most dreadful of all complications of diphtheria. It is due to direct action of the toxin on the heart muscle.

Another severe complication is peripheral neuritis. It occurs in the form of paralysis affecting the soft palate and throat. Other forms of paralysis are paralysis of eye or even respiratory muscles, paralysis of a limb or both legs. These symptoms, however, after continuing for a variable length of time, almost always ultimately disappear.

The outcome of the disease depends mainly on one factor, namely, the early administration of adequate doses of antitoxin. Its employment in any recognized or

even suspected case of diphtheria is mandatory and no physician can delay its administration. The second important measure is rest, the patient being kept strictly flat.

Patients suffering from diphtheria should be isolated for at least two weeks after the onset of the disease, and then until three successive cultures from the nose and throat taken not less than 48 hours apart are negative.

A diphtheria infection is treated using two types of medication: antibiotics to kill the diphtheria bacteria; antitoxins to neutralise the effects of the toxin produced by the bacteria.

Most people who have diphtheria require a 14-day course of antibiotics. After this time, you'll have tests to find out if all the bacteria have gone. If diphtheria bacteria are still present, you may need to continue taking antibiotics for another 10 days.

You should have the diphtheria vaccination after you've been treated because having diphtheria doesn't always stop you getting the infection again.

#### **Exercise 6. Answer the questions:**

- 1. What is diphtheria caused by?
- 2. Is it contagious disease?
- 3. What is the disease characterized by?
- 4. Where is diphtheria more common?
- 5. Who is more liable to diphtheria?
- 6. What is the incubation period of the disease?
- 7. What are the main forms of diphtheria?
- 8. What are its main symptoms?
- 9. What are its main complications?
- 10. What does the outcome of the disease depend on?

# Exercise 7. Match the following English word combinations with Russian ones:

ies.	
1. absorbed by blood stream	а) розповсюджуватись при прямому
	контакті
2. produce deleterious effect on	b) раптовий початок
3. spread by direct contact	с) всмоктуватися кровотоком
4. put in an appearance	d) виробляти шкідливу дію на
5. healthy carrier	е) по розположению
6. according to the distribution	f) з'явитися ненадовго
7. insidious onset	g) здоровий носій
8. affect the soft palate and throat	h) бути більш схильним до дифтеріі
9. a slight feeling of uneasiness	і) вражати м'яке піднебіння та горло
10. to be more liable to diphtheria	ј) легке відчуття дискомфорту в
	горлі
	<del></del>

# **Exercise 8. Match the words with their definitions:**

		infections	
2.	incubation period	b) a poisonous substance produced within living cells or	
		organisms	
3.	toxin	c) the passage from the back of your mouth to the top of	
		the tubes that go down to your lungs and stomach	
4.	bacteria	d) a way in which parts of the body react to disease or	
		injury	
5.	inflammation	e) the time from the moment of exposure to an	
		infectious agent until signs and symptoms of the disease	
		appear	

# Exercise 9. Find the equivalents of the following word combinations in the text:

Гостре інфекційне захворювання, місцеве запалення, всмоктуватися кровотоком, слизова оболонка, шкідливий вплив, у всьому світі, поширюватися при безпосередньому контакті, здоровий носій, бути більш схильним, найздоровіші (міцні) люди, бути особливо схильним, з'являтися ненадовго, відкласти призначення, принаймні, початок захворювання.

### **Exercise 10. Give English equivalents to the words in brackets:**

- 1. Diphtheria is an (гостре інфекційне) disease.
- 2. It is characterized by (місцевим запаленням) with fibrin formation of the (слизової оболонки) of the (верхніх дихальних щляхів).
- 3. The disease exists (по всьому світі) but is more common (в помірнних зонах).
  - 4. It is commonly spread (при прямому контакті).
  - 5. Children appear to be (більш схильними) to diphtheria than (дорослі).
- 6. Most (міцні) people may be (інфіковані) and those whose health is weakened by any cause are especially (схильні).
- 7. The earliest objective (проявлення) of the disease is the formation of (тонкоі плівки на мигдалинах).
- 8. If the pseudomembrane is forcibly removed, it leaves (свіжу кровоточиву) surface.
- 9. (Результат захворювання) depends largely on one factor, namely, (назначення відповідної дози антитоксина).
- 10. Patients suffering from diphtheria should be (изольовані) for at least two weeks after (початку захворювания).

# Exercise 11. Fill in the articles where necessary:

- 1. The old man was seriously ill. He was running ... high temperature.
- 2. I've ... bad cold in ... head. I must have caught ... cold yesterday when I ran out into ... yard without ... cap on.
- 3. She overworked and had ... bad headache. People who do not get enough ... sleep often have ... headaches.
  - 4. I have only ... slight headache. No pills for me, thank you.
  - 5. I have ... splitting headache and ... bad cold in ... head. I must have

- caught ... cold. I am afraid I shall fall ill with ... flu.
- 6. I have ... sore throat. I feel ... pain in my side. You must stay in ... bed and call ... doctor in.
  - 7. Take ... table spoonful of ... mixture twice ... day after ... meals.
- 8. I had ... bad cold. I went to bed and drank ... cup of hot tea with raspberry jam. It helped to beat down ... temperature.
- 9. ... weather was bad yesterday. I must have caught ... cold when I was going ... home from ... work.
- 10. He stayed at ... home and called ... doctor in. ... doctor diagnosed ... case and prescribed him ... medicine.

### **Exercise 12. Put the verbs in brackets in the appropriate tense:**

- 1. Whom ... the doctor ... at the hospital every day? (treat)
- 2. What ... you ... now? (study)
- 3. What ... the surgeon already ...? (transfuse)
- 4. What ... the surgeon ... for two hours? (perform)
- 5. What ... the lecturer ... yesterday at 3 o'clock? (report on)
- 6. What ... you ... to do before you saw me? (decide)
- 7. What ... the nurse ... for an hour before the surgeon began the operation? (sterilize)
  - 8. What ... you ... tomorrow at 6 o'clock? (do)
  - 9. What ... you ... tomorrow? (take part in)
  - 10. How many patients ... the doctor ... tomorrow by 5 p.m.? (hospitalize)

# Exercise 13. Translate the sentences into your native language. Pay attention to the Present Perfect Continious:

- 1. The patient has been complaining of a considerable muscular pain for some days.
  - 2. The professor has been delivering the lecture for half an hour.
  - 3. The student has been heating hydrogen in the tube for some minutes.
  - 4. The nurse has been giving the injection for five minutes.
  - 5. They have been working at the laboratory for two years.
  - 6. The dentist has been examining the gingival for some minutes.
- 7. The patients have been receiving the injections of streptomycin for several days.

# Exercise 14. Open the brackets using the verbs in the Present Perfect Continious:

- 1. I (to read) the paragraph on types of immunity for half an hour.
- 2. She (to write) the test in Histology for ten minutes.
- 3. The patient (to wait) for the doctor since seven o'clock.
- 4. How long you (to stay) in hospital?
- 5. They( to perform) the operation since nine o'clock.
- 6. What this laboratory assistant (to do) here since morning?
- 7. How many months they (to build) this polyclinic?

# Exercise 15. Put the verbs in brackets into the correct forms of Present Perfect or Present Perfect Continious:

- 1. She (to be) ill since last week.
- 2. He (to know) this doctor since childhood. He is a pediatrician.
- 3. I (to try) to understand your report on the immune response for half an hour.
- 4. She (to look) for her stethoscope since she came to the hospital.
- 5. The students (to be) in this academy building since 8 a.m..
- 6. My sister (to sleep) for ten hours.

### **Exercise 16. Put questions to the underlined words:**

- 1. The disease may be divided into <u>three main forms according to the</u> anatomical distribution of the membrane.
  - 2. It occurs in the form of paralysis affecting the soft palate and throat.
- 3. These symptoms, however, <u>after continuing for a variable length of time</u>, almost always ultimately disappear.
- 4. The outcome of the disease depends mainly on <u>one factor, namely, the early administration of adequate doses of antitoxin.</u>
  - 5. It is commonly spread by direct contact which must be fairly intimate...
- 6. A slight feeling of uneasiness <u>in the throat</u> is experienced along with some stiffness of the back of the neck.
  - 7. Myocarditis is the most dreadful of all complications of diphtheria.
  - 8. The lesion tends to spread over the pillars and onto the soft palate and uvula.

### **Exercise 17. Translate into English:**

- 1. Хто з ваших коллег робить операцію вже п'яту годину поспіль?
- 2. Він мріяв стати лікарем з дитинства.
- 3. З якого часу ви працюете в цьому диспансері? Я працюю тут з 2005.
- 4. Вони вже півтори години обговорюють питання природи набутого імунітету.
  - 5. Цей паціент гуляе у дворі лікарні вже дві години.
  - 6. Скільки часу ви вивчаете англійську мову? Я вивчаю іі вже три роки.
- 7. З шостого ранку я переглядаю статті про такі захворювання, як вітряна віспа, кір та поліоміеліт.

# Завдання для самостійної роботи студентів (СРС)

# І. Перекладіть наступні словосполучення:

- 1. розповсюджуватись при прямому контакті
- 2. раптовий початок
- 3. всмоктуватися кровотоком
- 4. виробляти шкідливу дію
- 5. гостра інфекційна хвороба
- 6. з'явитися ненадовго
- 7. здоровий носій
- 8. бути більш схильним до дифтеріі
- 9. вражати м'яке піднебіння та горло
- 10. легке відчуття дискомфорту в горлі

<ul> <li>II. Дайте відповіді на наступні питання:</li> <li>1. What is diphtheria caused by?</li> <li>2. What is the disease characterized by?</li> <li>3. What are the main forms of diphtheria?</li> <li>4. What are its main symptoms?</li> <li>5. What are its main complications?</li> </ul>			
III. Розкрийте поняття: дифтерія, інкубаційний період			
Test 1. Diphtheria is an acute contagious disease by specific orgadiphtheria. a) is caused b) caused c) causes d) has been caused e) c			
	· · · · · · · · · · · · · · · · · · ·		
<ul><li>2. The diseasethroughout the world.</li><li>a) exists b) existed c) exist d) is existing e) was existed</li></ul>	isting		
3. The incubation period days. a) 1-2 b) 7 to 9 c) 30 d) 3 to 10 e) 5 to 10			
4. A thin film of fibrin on the tonsils forms characteristic pseudo a) yellowish-white b) white c) grayish d) bluish e) b			
<ul><li>5. Children to be more liable to diphtheria.</li><li>a) appears b) appeared c) is appeared d) appear e) a</li></ul>	appearing		
6. The lesion to spread over the pillars and onto the soft palate. a) tend b) tending c) is tended d) to tend e) tends			
7. What the outcome of the disease depend on? a) will b) would c) does d) did e) do			
8 The disease may be divided 3 main forms. a) to b) into c) for d) in e) at			
9. Peripheral neuritis occurs in the forms of affecting the soft pala a) inflammation b) disorder c) insufficiency d) paralysis e) a			
10. The outcome of the disease depends mainly on one factor, nan administration of	nely, the early		
a) antibiotic b) vaccine c) laxative d) expectorant e) a	antitoxin		

#### **HEPATITIS**

Exercise 1. Topic vocabulary:

Exercise 1. Topic vocabulary.		
bloating, n	[ˈbləʊtɪŋ]	здуття
communicate, v	[kəˈmjuːnɪkeɪt]	передавати
contaminated, adj	[kənˈtæmɪneɪtɪd]	заражений, забруднений
countermeasures, n	[ˈkaʊntəˌmeʒəs]	міри протидії, контрміри
festering, <i>n</i>	[ˈfestərɪŋ]	нагноєння
hepatitis, n	[hepə'taɪtɪs]	гепатит
		інкубаційний (латентний,
incubation period	[ˌɪŋkjʊˈbeɪʃən ˈpɪəriəd]	прихований) період
jaundice, <i>n</i>	[ˈdʒɔːndɪs]	жовтяниця
needle, n	[ˈniːdl̞]	голка
saliva, n	[səˈlaɪvə]	слина
seep, v	[si:p]	просочуватися
sneeze, v	[sniːz]	чхати
suppuration, <i>n</i>	[ˈsʌpjʊreɪʃən]	нагноєння
vicinity, n	[vɪˈsɪnəti]	ділянка, зона

Exercise 2. Form the opposites by adding negative prefixes:			
infectious,_	measures,	possible,	capable
born,	protected,	existent,	contaminated
symptomatic.			

**Exercise 3. Complete the table with missing forms:** 

VERB	NOUN	ADJECTIVE
	loss	
to measure		
		contaminated
to consume		
to recover		
	failure	
to cure		
	invader	
		persistent
to suspect		
to remain		
	transmission	

# **Exercise 4. Give Ukrainian equivalents of the following word-combinations:**

To recover from hepatitis within a few months; infected body fluids; suppurating sores; to remain a carrier capable of infecting others; to reveal hepatitis D antibodies in the blood; pain in the vicinity of the liver; shared hypodermic needles; liver failure; to worsen infections of hepatitis; almost non-existent, breast milk, to take countermeasures, personal items, blood transfusions, on physical examinations,

contaminated water, incubation period, amount of the pigment, toxic chemicals and insecticides, low-grade fever.

# Exercise 5. Read and translate the text: HEPATITIS

Hepatitis is a medical condition defined by the inflammation of the liver and characterized by the presence of inflammatory cells in the tissue of the organ. Hepatitis may be caused by a number of different argents, including viruses, bacteria, parasites, toxic drugs, toxins, or diseases of the immune system. Five viruses have been identified that specifically attack the liver and produce hepatitis A, B, C, D and E. Infectious mononucleosis, certain toxic chemicals and insecticides may cause hepatitis.

Hepatitis can be acute (short-term) or chronic (long-term). If an individual with hepatitis remains symptomatic for more than a few months, the condition is considered chronic. All forms of hepatitis share similar symptoms, including dark urine, appetite loss, fatigue, bloating, jaundiced skin colouring, yellowing of the whites the eyes, nausea and vomiting, pain in the vicinity of the liver and low-grade fever. On physical examination the physician can reveal abnormal enlargement of the liver by palpitation. Liver function test include the measurement of specific enzymes that seep into blood if the liver is inflamed. The bilirubin test measures the amount of this pigment in the blood.

Hepatitis A is usually spread by eating or drinking food or water contaminated with infected feces or through close contact with an infectious person. While children often do not have symptoms when infected they are still able to infect others. It is usually communicated as the result of poor hygiene or through personal contact. The incubation period for hepatitis A lasts about two or six weeks, so the disease can spread widely before countermeasures are taken. Most patients recover within a few months. Serious complications are rare. After a single infection, a person is immune for the rest of their life. Complications are possible among the elderly and those who already have liver problems, such as alcoholics.

Hepatitis B is spread through infected body fluids like blood, semen, saliva, suppurating sores, or breast milk. It does not spread by simple physical contact, holding hands, sharing eating utensils, kissing, hugging, coughing, sneezing. The incubation period for hepatitis B lasts from one to six months, so it is usually impossible to tell how it was acquired. Once recovered, the infected person will be immune to any later reinfection with this particular virus, although person may contract one of the other hepatitis viruses. Someone infected with hepatitis B may fully recover and have no symptoms and yet remain a carrier capable of infecting others through sexual contact, shared hypodermic needles, and shared food or drinks.

Many individuals who are infected with hepatitis C have no symptoms and never realize that they have the disease. Most people with hepatitis C become chronically infected. This disease is spread primarily by blood-to-blood contact associated with intravenous drug use, poorly sterilized medical equipment, and transfusions, tattoo procedures, shared personal items (e.g. toothbrushes, manicuring equipment). People with strong immune systems may recover spontaneously from hepatitis C without treatment. Those with chronic hepatitis C who are not treated or

not cured by treatment may live normal lives, but they remain carriers of the disease and can infect others. Some people with chronic hepatitis C develop complications like cirrhosis, liver failure, or liver cancer.

Hepatitis D attacks individuals who have already had hepatitis B. The virus does not cause the disease by itself but worsens infections of hepatitis B; a person may get the two forms of hepatitis at the same time. It is transmitted through the same routes as hepatitis B, through bodily fluids from shared IV needles or unprotected sex. Hepatitis D is usually suspected when the condition of someone with hepatitis B suddenly becomes severely worse. It is diagnosed with tests that reveal hepatitis D antibodies in the blood.

Hepatitis E is almost non-existent in developed countries; it is found mainly in sub-Saharan Africa and in Asia. It is similar to hepatitis A and spreads primarily through contaminated water supplies, with an incubation period that lasts from about two to six weeks. It is not transmitted by sexual contact, contaminated blood, IV needles, or other bodily fluids. Most people with hepatitis E recover from it on their own within a few months.

### **Exercise 6. Answer the following questions to the text:**

- 1. What are the causes of hepatitis?
- 2. How is hepatitis detected?
- 3. How is hepatitis A spread?
- 4. How can hepatitis B be transmitted?
- 5. What complications may develop in patients with hepatitis C?
- 6. How is hepatitis D diagnosed?
- 7. When is hepatitis considered chronic?
- 8. What are the symptoms of hepatitis?

#### **Exercise 7. Match the terms with their definitions:**

1. jaundice	a) extreme tiredness resulting from mental or physical		
	exertion or illness		
2. bilirubin	b) swelling of a body or part of a body, usually because it		
	has a lot of gas or liquid in it		
3. cirrhosis	c) a medical condition with yellowing of the skin or whites		
	of the eyes, arising from excess of the pigment bilirubin and		
	typically caused by obstruction of the bile duct, by liver		
	disease, or by excessive breakdown of red blood cells		
4. vomiting	d) an orange-yellow pigment formed in the liver by the		
	breakdown of hemoglobin and excreted in bile		
5. nausea	e) abnormal enlargement of the liver		
6. sore	f) a feeling of sickness with an inclination to vomit		
7. bloating	g) ejection of matter from the stomach through the mouth		
8. fatigue	h) a chronic disease of the liver marked by degeneration of		
	cells, inflammation and fibrous thickening of tissue. It is		
	typically a result of alcoholism or hepatitis		
9. hepatomegal	i) a raw or painful place on the body		

1.	2.	3.	4.	5.	6.	7.	8.	9.

# Exercise 8. Read the definitions and fill in the blanks with the name of disease below:

Hepatitis A, Hepatitis B, Hepatitis C, Hepatitis D,

Hepatitis E, Liver cancer, Cirrhosis				
1is a type of liver disease that can lead to scarring of t	the liver			
and ultimately to cirrhosis.				
2 is an acute but benign form of viral hepatitis.				
3is malignant neoplastic disease of the liver.				
4 is a type of liver disease that is not prevalent	n most			
leveloping countries, but common in any country with a hot climate.				
	. 1			

- 5. \_\_\_\_\_ is a type of liver disease that includes inflammation and damage to cells.
- 6. \_\_\_\_\_ is a type of liver disease that attacks persons who already have suffered from hepatitis B.
- 7. \_\_\_\_\_\_ is a type of liver disease that is spread through body fluids and can be acute or chronic.

# Exercise 9. Find the English equivalents to the following word-combinations:

Виявляти антитіла гепатиту Д в крові; біль у ділянці печінки; спільні голки для підшкірних ін'єкцій; просочуватися у кров; інкубаційний період; видужувати від гепатиту протягом кількох місяців; переливання крові; заражена їжа та вода; розвивати ускладнення такі як недостатність печінки; інфіковані рідини тіла; майже неіснуючий; рани, що гнояться; залишатися носієм, здатним інфікувати інших.

# Exercise 10. Fill in the gaps with the appropriate prepositions:

The majority ... cases ... hepatitis are caused ... viruses, some ... which are specific ... hepititis; others produce hepatitis as a related consequence. Five types ... hepititis viruses are recognized and diagnosed as specifically causing the liver inflammation known as hepatitis. They are called hepatitis A, B, C, D, and E. Symptoms are similar ... all ... these viruses and include dark urine, appetite loss, fatigue, jaundice ... the skin and whites ... the eyes, bloating and abdominal cramps, low-grade fever, pale or clay-coloured stools, and fatigue. Diagnosis ... most cases is guided ... blood tests, which reveal antibodies, specific ... one of the forms ... hepatitis, or elevated liver enzymes.

Exercise 11. Find synonyms in the text to the following words:

======================================				
severe	to detect			
weakness	continuous			
flatulence	sternutation			
to show	festering			

to ingest	biliosness	biliosness	
to transmit	region	region	
to get better	to affect		
to catch	polluted	polluted	
volume	to outlive		

### **Exercise 12. Rearrange the words to make up sentences:**

- 1. people/ Many/ hepatitis B or C/ do not/ with/ symptoms/ are/ when/ have/ I they/ first/ infected.
  - 2. and/ Hepatitis A/ is/ serious/ of/ diseases/ these/ mildest/ the least.
  - 3. acute/ hepatitis/ People/ with/ any/ avoid/ alcohol/ should/ and/ substances/ are/ toxic/ that/ to the liver.
  - 4. Over 85%/ with/ 3 months/ people/ hepatitis A/ of/ recover/ within.
- 5. are/ caused/ Hepatitis A and E/ by/ typically/ or/ of/contaminated/ ingestion/ food/ water.
  - 6. infection/ limited/ Acute/ occur/ may/ with/ symptoms/ no/ or.
- 7. are/ There/ main/ as/ hepatitis/ viruses,/ types/ referred to/ five/ A, B, C, D and E.
- 8. B usually/ Hepatitis B, C and D/ occur/ fluids/ infected/ as/ of/ a result/ contact/ parenteral/ with/ body.

### **Exercise 13. Put questions to the underlined words:**

- 1. Hepatitis is characterized by the presence of inflammatory cells in the tissue of the organ.
- 2. Hepatitis is caused by <u>a number of different argents</u>, <u>including viruses</u>, <u>bacteria</u>, <u>parasites</u>, <u>toxic drugs</u>.
  - 3. All forms of hepatitis share <u>similar symptoms</u>.
  - 4. The bilirubin test measures the amount of this pigment in the blood.
- 5. People with strong immune systems may recover spontaneously from hepatitis C without treatment.
- 6. On physical examination the physician can reveal abnormal enlargement of the liver by palpitation
  - 7. The incubation period for hepatitis A lasts about two or six weeks.
  - 8. Hepatitis B is spread through infected body fluids like blood, semen.

#### **Exercise 14. Put the verbs in brackets into the correct form:**

- 1. The physician (to make) diagnosis hepatitis A after the results of blood and urine analyses.
  - 2. He (to spend) nearly a year in hospital being treated for hepatitis.
- 3. Needle-sharing (to be) the No. 1 risk factor in contracting hepatitis C and HIV.
- 4. Chronic hepatitis C (to develop) complications like cirrhosis, liver failure, or liver cancer.
- 5. On physical examination the physician (to reveal) abnormal enlargement of the liver two days ago.
  - 6. Different parts of the world (to suffer) from a variety of different diseases

such as hepatitis A and B, typhoid, yellow fever and malaria.

- 7. In hepatitis A, there (to be) an incubation period of 8–18 days between initial infection and first symptoms.
  - 8. The nurse (to make) an injection to a patient with hepatitis B now.

# Exercise 15. Use the plan to tell about hepatitis:

- 1. Cause
- 2. Types
- 3. Ways of transmission
- 4. Symptoms
- 5. Complications

# Exercise 16. Put the sentences into the correct order to explain the term "hepatitis":

Hepatitis are caused by viruses, bacteria, parasites, toxic drugs, toxins, or
diseases of the immune system.
Five viruses have been identified that produce hepatitis A, B, C, D and E.
All forms of hepatitis share similar symptoms, including dark urine, appetite
loss, fatigue, bloating, jaundiced skin colouring, yellowing of the whites the eyes,
nausea and vomiting.
Hepatitis is a medical condition defined by the inflammation of the liver.
Some forms of hepatitis are spread through close contact with an infectious
person and contaminated food or water, another are spread through infected body
fluids like blood, semen, saliva or breast milk.

### Завдання для самостійної роботи студентів (СРС)

# І. Перекладіть наступні словосполучення:

- 1. виявляти антитіла
- 2. біль у ділянці печінки
- 3. переливання крові
- 4. заражена їжа та вода
- 5. рани, що гнояться
- 6. інфіковані рідини тіла
- 7. просочуватися у кров
- 8. спільні голки для підшкірних ін'єкцій
- 9. збільшення печінки
- 10. пожовтіння скляр ока

### II. Дайте відповіді на наступні питання:

- 1. What are the causes of hepatitis?
- 2. How is hepatitis A spread?
- 3. How can hepatitis B be transmitted?
- 4. What complications may develop in patients with hepatitis C?
- 5. What are the symptoms of hepatitis?

#### **III. Розкрийте поняття:** гепатит

# **Test**

1 Hepatitis is a medical condition defined by the inflammation of the a) lung b) liver c) kidney d)gallbladder e) spleen
2. On physical examination the physician can reveal abnormal enlargement of the liver by a) auscultation b) percussion c) inspection d) palpitation e) blood analysis
<ul><li>3. The bilirubin test measures the amount of bilirubin pigment in.</li><li>a) the urine</li><li>b) the blood</li><li>c) the saliva</li><li>d) the sputum</li><li>e) the feces</li></ul>
4. there are types of hepatitis. a) two b) three c) four d) five e) six
<ul><li>5. The incubation period for hepatitis A lasts about</li><li>a) two-seven days b) two months c) two or six weeks d) six months e) two hours</li></ul>
<ul><li>6. Hepatitis D attacks individuals who have already had</li><li>a) hepatitis A b) hepatitis B c) hepatitis C d) hepatitis E e) hepatitis F</li></ul>
7. Hepatitis is accompanied by a) bleeding b) aging c) overweight d) dark urine e) rash
8. Hepatitis B is spread by a) simple physical contact b) holding hands c) blood d) hugging e) sneezing
9. People with chronic hepatitis C develop complication like a) tuberculosis b) heart failure c) liver failure d) kidney failure e) pneumonia
10 Hepatitis E is similar to and spreads primarily through contaminated water.

b) hepatitis B c) hepatitis C d) hepatitis E

a) hepatitis

e) hepatitis F

#### CHILDHOOD INFECTIOUS DISEASES

**Exercise 1. Topic Vocabulary:** 

airborne, adj	[ˈeəbɔːn]	повітряний
chickenpox, n	[ˈtʃikɪnpɒks]	вітряна віспа
contagious, adj	[kənˈteɪdʒəs]	заразний
inhalation, <i>n</i>	[ˌɪnhəˈleɪʃən]	вдих
measles, n	[ˈmiːzəlz]	кір
mumps, n	[mʌmps]	свинка
rubella, n	[ruːˈbelə]	краснуха
shingles, n	[ˈʃɪŋgəlz]	оперізуючий лишай
swollen, adj	[ˈswəʊlən]	запухлий
uneventful, adj	[ˌʌnɪˈventfəl]	без ускладнень
varicella, n	[ˌværɪˈselə]	вітряна віспа

# Exercise 2. Read the word combinations with the new words and translate them into Ukrainian:

- **1. Health:** poor health, in good health, mental health, public health, health service, a health worker, health insurance, to affect health, harmless to one's health, bad / broken / failing / feeble / fragile / frail / ill / poor health.
- **2. Treatment:** free medical treatment, supportive treatment, antibiotic treatment, emergency treatment, hydropathic treatment, treatment by suggestion, to answer to the medical treatment.

# Exercise 3. Put the names of diseases in the appropriate column:

AIDS (acquired immune deficiency syndrome), chicken pox, diarrhea, diphtheria, dysentery, enteric fever, flu (influenza, grippe), German measles (rubella), hepatitis, meningitis, mumps, measles, polio, robeola, scabies, tetanus, tuberculosis, whooping cough, scarlet fever.

Children's Diseases	Infectious Diseases

# **Exercise 4. Read and translate the following word combinations:**

Inflamed eyes, tiny white spots on the lining of the cheek, inhalation of infecting droplets, sneeze, to avoid the disease, fetal death, swollen lymph nodes, clinical name, inflammation of the pancreas, testicles and ovaries, in infants, infected airborne droplets, nasal congestion, cause shingles, to produce a specific type of toxin, characteristic symptoms and signs, sore throat, permanently immune, first trimester of pregnancy, itchy.

# Exercise 5. Read and translate the text: CHILDHOOD INFECTIOUS DISEASES

Many of the most known diseases of childhood – chickenpox, measles, rubella and mumps, whooping cough scarlet fever and poliomyelitis – are highly infectious diseases that can be passed easily from person to person. Some of these diseases are very serious indeed. The diagnosis of these diseases is made on the basis of their

characteristic symptoms and signs.

Measles. Its signs and symptoms are: fever, cough, sneezing, inflamed eyes, sore throat, tiny white spots on the lining of the cheek, and rash. Measles, also known as rubeola, is a common childhood illness, although adults are also susceptible. The virus that causes the disorder is transmitted by inhalation of infecting droplets such as from a sneeze. Measles is most contagious before the rash appears, making it difficult to avoid the disease. Until the rash disappears, you still can pass it to others. Once you have had measles, you are permanently immune and will not contract the disease again.

Rubella, also known as German measles or three-day measles, is an infection caused by the rubella virus. This disease is often mild with half of people not realizing that they are sick. In children, rubella is a fairly mild illness. However, rubella infection during the first trimester of pregnancy can cause fetal death. A rash may start around two weeks after exposure and last for three days. It usually starts on the face and spreads to the rest of the body. The rash is not as bright as that of measles and is sometimes itchy. Swollen lymph nodes are common and may last a few weeks. A fever, sore throat, and fatigue may also occur.

Mumps is a childhood disease, but it can occur in adults. Its clinical name is epidemic parotitis. Its symptoms are the following: swollen, painful salivary glands, fever, weakness and fatigue, inflammation of the pancreas, testicles, ovaries, or brain. Mumps is caused by a virus and spread by inhalation of infected droplets. The affected person becomes contagious 1 day before the symptoms appear, is most contagious for another 3 days, and then becomes less contagious as the swelling goes down.

In developed countries, children are immunized against measles, rubella and mumps at 12 months by MMR vaccine (measles, mumps, and rubella). And a second dose of the vaccine is usually given to children between the ages of four and five. There is no specific treatment for these diseases. Most children with uncomplicated forms of disease recover with rest and supportive treatment.

Whooping cough. Whooping cough primarily occurs in infants younger than 2 years. It is contracted by inhaling infected airborne droplets, often from an adult with mild case of the disease. The disease is most contagious early, but can be transmitted until the infection is completely cleared. The symptoms of this disease are sneezing and nasal congestion, tearing, loss of appetite, and cough.

Fever, weakness, and red, itchy rash are the signs of chickenpox. Chickenpox, also known as varicella, occurs primarily in children, although adults who are not immune can contract it. It is contagious and is spread by breathing in infected respiratory droplets or by unprotected direct contact with the rash when it has ruptured. In persons who have had chickenpox, the virus can cause shingles later in life.

Scarlet fever was once a common, serious childhood illness but now is quite rare. Caused by a specific type of streptococcal bacteria, scarlet fever usually begins suddenly with sore throat, fever, and chill. The bacteria produce a specific type of toxin that causes a rash. It usually disappears after 3 days, and the fever disappears. The tongue may be swollen for somewhat longer, but recovery usually is uneventful.

# **Exercise 6. Answer the questions:**

- 1. What are the most known diseases of childhood?
- 2. What are the signs and symptoms of measles?
- 3. What are Rubella's clinical symptoms?
- 4. What are the mumps symptoms?
- 5. When are children immunized by MMR vaccine and when is the second dose usually given?
  - 6. What are the symptoms of whooping cough?
  - 7. What can you tell about chickenpox?
  - 8. What do you know about exciter of scarlet fever?

### **Exercise 7. Find corresponding equivalents in the text:**

Найбільш відомі захворювання; кашлюк та скарлатина; вдих; інфекційний; доки не зникне висип; простуда; уникнути захворювання; бути викликаним вірусом; свинка та краснуха; відчуття загального дискомфорту; заразитися; вражати дихальний тракт; досить рідкісний; розриватися; видихати; оперізуючий лишай; втома, втомлюваність; хрипота; зазвичай починається несподівано; досить рідко; вдихати інфіковані крапельки в повітрі.

Exercise 8. Match the first name of the disease with the second one:

morbilli/rubeola	mumps
rubella	polio
varicella	measles
infectious parotitis	croup
pertussis	chickenpox
acute laryngotracheitis	lockjaw
scarlatina	scarlet fever
poliomyelitis	whooping cough
tetanus	german measles

#### Exercise 9. Read the following statements. Agree or contradict them:

- 1. Many of the most known diseases of childhood are highly infectious diseases that can be passed easily from person to person.
- 2. Measles, also known as three-day measles that caused by the streptococcal bacteria.
- 3. Rubella infection during the first trimester of pregnancy can cause fetal death.
  - 4. Mumps is a childhood disease, but it can't occur in adults.
- 5. Children become immunized firstly by MMR vaccine between the ages of four and five.
  - 6. Whooping cough starts on the face and spreads to the rest of the body.
- 7. Chickenpox was once a common, serious childhood illness but now is quite rare.
  - 8. Fever, weakness, and red, itchy rash are the signs of scarlet fever.

### **Exercise 10. Insert the missing prepositions:**

- 1. Whooping cough occurs ... infants younger than 2 years.
- 2. It is contracted ... inhaling infected airborne droplets.
- 3. The symptoms ... this disease are sneezing and nasal congestion, tearing, loss appetite, and cough.
  - 4. Chickenpox occurs primarily ... children.
- 5. It is spread ... breathing in infected respiratory droplets or ... unprotected direct contact with the rash.
  - 6. Mumps is a childhood disease, but it can occur ... adults.
  - 7. Mumps is caused ... a virus and spread ... inhalation of infected droplets.
- 8. In persons who have had chickenpox, the virus can cause shingles later ... life.

### **Exercise 11. Complete the sentences using words from the text:**

- 1. The most common diseases of childhood are highly infectious ....
- 2. The virus of measles is transmitted by ... of infecting droplets.
- 3. Whooping cough is contracted by inhaling infected ....
- 4. Chickenpox is spread by unprotected direct contact with ....
- 5. The clinical name of ... is epidemic parotitis.
- 6. ... during the first trimester of pregnancy can cause fetal death.
- 7. Children are immunized against ... by MMR vaccine.
- 8. Scarlet fever was once a common, serious ... illness but now is quite rare.

### **Exercise 12. Put questions to the underlined words:**

- 1. Whooping cough, scarlet fever and poliomyelitis are highly infectious diseases.
- 2. The virus that causes the disorder is transmitted by <u>inhalation of infecting</u> droplets.
  - 3. Measles is most contagious <u>before the rash appears</u>.
- 4. Rubella infection <u>during the first trimester of pregnancy</u> can cause fetal death.
  - 5. <u>Mumps</u> is caused by a virus and spread by inhalation of infected droplets.
- 6. A second dose of the vaccine is usually given to children between the ages of four and five.
  - 7. The bacteria produce a specific type of <u>toxin</u> that causes a rash.
- 8. Children are immunized against measles, rubella and mumps at 12 months by MMR vaccine.

### Exercise 13. Put the verbs in brackets into the correct form:

- 1. All children (to vaccinate) against measles next week.
- 2. The illness (to diagnose) as mumps.
- 3. He (to develop) a rash after the insect (to bite) him.
- 4. Child with chicken pox (to isolate) immediately last night.
- 5. Before AIDS, many health care experts (to believe) that large-scale infectious diseases were a thing of the past.
  - 6. A boy (to admit) to the hospital with a severe form of scarlet fever

yesterday.

- 7. MMR vaccine (to develop) adverse events following immunization rare.
- 8. Whooping cough (to occur) mainly in young children.

# Exercise 14. Put the sentences into the correct order to explain the term "childhood infectious disease":

\_\_ Most children with uncomplicated forms of infectious diseases recover with rest and supportive treatment.
 \_\_ All infectious diseases can be passed easily from person to person.
 \_\_ Infectious diseases are a group of diseases which are caused by organisms such as bacteria, viruses, and parasites.
 \_\_ The best known diseases of childhood are chickenpox, measles, rubella and mumps, whooping cough, scarlet fever and poliomyelitis.

### Завдання для самостійної роботи студентів (СРС)

A sore throat, a running nose, cough, high temperature, rash are the most

# І. Перекладіть наступні словосполучення:

characteristic local symptoms of childhood infectious disease.

- 1. найбільш відомі захворювання
- 2. уникнути захворювання
- 3. бути викликаним вірусом
- 4. свинка та краснуха
- 5. відчуття загального дискомфорту
- 6. визивати оперізуючий лишай
- 7. вдихати інфіковані крапельки в повітрі
- 8. кір та вітряна віспа
- 9. бути імунізованим проти
- 10. кашлюк та скарлатина

# II. Дайте відповіді на наступні питання:

- 1. What are the most known diseases of childhood?
- 2. What are the signs and symptoms of measles?
- 3. What are Rubella's clinical symptoms?
- 4. What are the mumps symptoms?
- 5. When are children immunized by MMR vaccine and when is the second dose usually given?

# ІІІ. Розкрийте поняття: дитячі інфекційні захворювання

#### **Test**

- 1. Infectious diseases are a group of diseases which are caused by ...
- a) drugs b) inflammations c) viruses d) literature e) religion
- 2. Droplet transmission is also known as ...
- a) blood transmission b) the respiratory route c) fecal-oral transmission
- d) oral transmission e) Sexual transmission
- 3. Infectious diseases can be spread ... a variety of ways.
- a) in b) by c) on d) to e) with

<ul> <li>4. The most common way of transmission for childhood infectious diseases is</li> <li>a) blood transmission</li> <li>b) the respiratory route</li> <li>c) fecal-droplet transmission</li> <li>d) oral transmission</li> <li>e) Sexual transmission</li> </ul>				
<ul><li>5. Prodromal symptoms appear than the characteristic features.</li><li>a) later b) sooner c) earlier d) after e) before</li></ul>				
6 Abdominal infectious diseases may cause a) hepatitis A b) gastritis c) chicken pox d) diarrhea e) appendicitis				
<ul><li>7. Many infectious diseases are accompanied by</li><li>a) bleeding b) aging c) overweight d) belching e) rash</li></ul>				
<ul><li>8. An artificial immunity results from</li><li>a) lactic acid b) toxic bacteria c) the prophylactic vaccination</li><li>d) sugar e) microbes</li></ul>				
9 Disease that can be passed via the fecal-oral route is a) tuberculosis b) hepatitis A c) the plague d) kidney failure e) pneumonia				
<ul> <li>10. Disease as has been stamped out in our country.</li> <li>a) tuberculosis b) hepatitis A c) the plague</li> <li>d) kidney failure e) pneumonia</li> </ul>				

#### **TYPES OF WOUNDS**

#### **OPEN WOUNDS**

### **Exercise 1. Learn the following words:**

Exercise 1. Ecuri in the	<del> 8</del>	
torn, adj	['tɔ:n]	рваний
punctured, adj	[´pʌŋkt∫əd]	колений
blunt, adj	[ˈblʌnt]	тупий
trauma, n	[´trɔ:mə]	травма
contusion, n	[kən´tju:ʒn]	забите місце
open, v	[´əʊpən]	відкритий
closed, adj	[ˈkləʊzd]	закритий
refer, v (to)	[rɪ ´fɜ:]	посилатись на
dermis, n	['dɜ:mɪs]	дерма, власне шкіра
object, n	[´ɒbʤəkt]	предмет, річ
incision, n	[ın´sıʒən]	надріз, розріз
incised, adj	[ın´saizd]	різаний
laceration, n	[,læsə´reı∫n]	розрив
linear, adj	['lɪnɪə]	лінійний
stellate, adj	['stelɪt]	зіркоподібний
abrasion, <i>n</i>	[ə´breɪʒn]	садно
graze, n	[greiz]	подряпина
superficial, adj	[,su:pə′fɪ∫əl]	поверхневий
slide, v	['slaɪd]	ковзати
rough, adj	[´rʌf]	грубий, шершавий
penetration, n	[,penı'treı∫n]	проникнення
gun-shot, n	['gʌnʃɔt]	постріл
bullet, n	['bulɪt]	куля
projectile, n	[prə'dʒektaɪl]	снаряд, куля

# Exercise 2.Guess the meaning of the following words without a dictionary:

Hematoma, pathology, linear, epidermis, contusion, penetration, disintegrate, abrasion, trauma, chronic, medicine, puncture, typical, category, classification, object, period, collection, traumatic, process, diabetic, circulation, infection, systemic, abscess, critical, locally, sepsis, scrape, sterile solution, antiseptic, tablet, history, philosopher, theory, serious, physically.

# **Exercise 3. Find corresponding equivalents:**

<b>1</b>	_
1. in (with) reference to	1. відскрібати
2. to refer to	2. посилатися на
3. Topmost	3. рвана рана
4. to scrape off	4. з посиланням на
5. "through -and-through"	5. різана рана
6. incision wound	6. стосовно, відносно
7. relatively	7. найвищий
8. punctured wound	8. наскрізний

9. laceration	9. колена рана
---------------	----------------

**Exercise 4. Complete the table with missing forms:** 

Nouns	Verbs		
	to injure		
Tear			
	to infect		
Cause			
Collection			
	to puncture		
	to incise		
Penetration			
Circulation			
	to disrupt		
Reference			
Appliance			
Support			
	to relieve		
	to measure		
Spread			
	to damage		

# Exercise 5. Read and then translate the following word combinations into the Ukrainian language:

The dermis of the skin; a blunt force trauma; a sharp-edged object; a glass splinter; irregular tear-like wounds; blunt trauma; scrub the injury of any loose materials and tissue; apply some sort of closing technique; stitching; the application of a pressure dressing; realign the edges of the wound; speed healing; lessen scarring; superficial wounds; the topmost layer of the skin; remain intact; a sliding fall; a rough surface.

# Exercise 6. Read and translate the text: OPEN WOUNDS

In medicine, a wound is a type of injury in which skin is torn, cut or punctured (an open wound), or where a blunt force trauma causes a contusion (a closed wound). In pathology, it specifically refers to a sharp injury which damages the dermis of the skin.

Open wounds can be classified according to the object that caused the wound. The types of open wound are:

Incisions or incised wounds, caused by a clean, sharp-edged object such as a knife, a razor or a glass splinter.

Lacerations, irregular tear-like wounds caused by some blunt trauma. Lacerations and incisions may be linear (regular) or stellate (irregular). The first step

to treat this kind of wound is to stop bleeding, clean and scrub the injury of any loose materials and tissue, and then apply some sort of closing technique, whether through stitching or the application of a pressure dressing. The edges of the wound should be realigned to speed healing and lessen scarring.

Abrasions (grazes), superficial wounds in which the topmost layer of the skin (the epidermis) is scraped off, but the tissue underneath remains intact. Abrasions are often caused by a sliding fall onto a rough surface. Cleansing of the wound and removal of any foreign material is important within the first 24 hours. Treatment is usually non-surgical and consists of the application of a moist dressing to protect the new tissue that forms to heal the abrasion.

Puncture wounds, caused by an object puncturing the skin, such as a nail or needle.

Penetration wounds, caused by an object such as a knife entering and coming out from the skin.

Gunshot wounds, caused by a bullet or similar projectile driving into or through the body. There may be two wounds, one at the site of entry and one at the site of exit, generally referred to as a "through-and-through."

#### **Exercise 7. Answer the following questions:**

- 1. What are the main two types of wounds?
- 2. What does a wound mean in medicine?
- 3. What does the wound refer to in pathology?
- 4. What can open wounds be classified according to?
- 5. What are incisions caused by?
- 6. What types of open wounds do you know?
- 7. What is the treatment of lacerations?
- 8. What is a "through-and-through" wound?

# **Exercise 8. Translate the following word-combinations into English:**

Вогнепальна рана; рана від проникнення; колоті рани; подряпина і садно; розрив (рвана рана); розріз (різана рана); пошкодження; наскрізна рана; загоювати садно; поверхнева рана; залишатися непошкодженим; найвищий шар шкіри; лінійні розрізи;зіркоподібні розрізи; вирівняти краї рани; прискорити загоєння; зменшити рубець.

# **Exercise 9. Put questions to the underlined words:**

- 1. Open wounds can be classified according to the object that caused the wound.
  - 2. <u>Incisions or incised wounds</u> are caused by a clean, sharp-edged object.
  - 3. The first step to treat this kind of wound is <u>to stop bleeding</u>.
- 4. The edges of the wound should be realigned to speed healing and lessen scarring.
  - 5. The topmost layer of the skin was scraped off.
  - 6. Abrasions are often caused by <u>a sliding fall onto a rough surface</u>.
  - 7. In abrasions, the tissue underneath the epidermis remains intact.
  - 8. Treatment consists of the application of a moist dressing to protect the new

#### tissue.

### Exercise 10. Open the brackets and translate the sentences into Ukrainian:

- 1. This type of wounds usually (to refer) to as through-and-through wounds.
- 2. Closed wounds (to have) fewer categories than open wounds.
- 3. In abrasions, the topmost layer of the skin (to scrape) off.
- 4. Abrasions often (to cause) by a sliding fall onto a rough surface.
- 5. A moist dressing (to apply) on his wound to protect the new tissue. (2 possible variants)
  - 6. The doctors (to apply) six stitches on his wound. (2 possible variants)
- 7. First, the edges of the laceration (to clean), then realigned.(3 possible variants)
  - 8. This puncture wound (to cause) by a nail.

#### **CLOSED WOUNDS**

**Exercise 1. Learn the following words:** 

contusion, n	[kənˈtjuːʒən]	забите місце
bruise, <i>n</i>	[bruːz]	синець; ґуля
harsh blow, n	[hɔ:∫ bləʊ]	грубий (різкий) удар
crush injury, n	[kreʃ 'indʒəri]	роздавлена рана
disrupt, v	[dɪsˈrʌpt]	розривати
disintegrate, v	[dis'inti_greit]	розкладатися

#### **Exercise 2. Translate the word combinations into Ukrainian:**

Sustain a harsh blow; monitor for symptoms of hematoma; a steadily growing mass; disrupt the tissue; relatively slow process; lead to tissue damage; insufficiency in the circulation; fail and disintegrate; take hold of the site; spread locally.

#### Exercise 3. Match the words with their definitions.

1. wound	a) an injury appearing as an area of discoloured skin on					
	the body, caused by a blow or impact rupturing underlying					
	blood vessels.					
2. trauma	b) a minor wound in which the surface of the skin or a					
	mucous membrane is worn away by rubbing or scrapping.					
3. hematoma	c) the thin layer of tissue forming the natural outer					
	covering of the body of a person or animal.					
4. bruise	d) a solid swelling of clotted blood within the tissues.					
5. abrasion	e) the presence in tissues of harmful bacteria and their					
	toxins, typically through infection of a wound.					
6. contusion	f) an injury to living tissue caused by a cut, blow, or other					
	impact, typically one in which the skin is cut or broken.					
7. skin	g) a swollen area within body tissue, containing an					
	accumulation of pus.					
8. contusion	h) a region of injured tissue or skin in which blood					
	capillaries have been ruptured.					
9. sepsis	i) the process of infecting or the state of being infected.					

10.	infection	j) a region of injured tissue or skin in which blood						
	capillaries have been ruptured.							
11.	abscess	k) a physical wound or injury, such as a fracture or blow.						

# Exercise 4. Read and translate the text: CLOSED WOUNDS

Closed wounds have fewer categories, but are just as dangerous as open wounds. The types of closed wounds are:

Contusions, more commonly known as bruises, caused by a blunt force trauma that damage tissue under the skin. When a person sustains a harsh blow, it causes tissue damage and bleeding beneath the skin, but does not tear the skin itself. Most contusions do not require medical treatment, but should be monitored for symptoms of hematoma, which is deep tissue damage. A hematoma can cause skin death over the injury and will need medical treatment. The symptoms of a hematoma are a steadily growing mass beneath the contusion and discoloration, as well as severe pain. These symptoms require immediate medical treatment.

Hematomas, also called a blood tumor, caused by damage to a blood vessel that in turn causes blood to collect under the skin.

Crush injury, caused by a great or extreme amount of force applied over a long period of time.

Chronic and Acute Wounds Acute or traumatic wounds are the result of injuries that disrupt the tissue. Chronic wounds are those that are caused by a relatively slow process that leads to tissue damage. Chronic wounds include pressure, venous, and diabetic ulcers. Typically, an insufficiency in the circulation or other systemic support of the tissue causes it to fail and disintegrate. Infection then takes hold of the site and hits a critical point, it can spread locally. Once the infection hits a critical point, it can spread locally or become systemic (sepsis).

### **Exercise 5. Answer the following questions:**

- 1. What are the types of closed wounds?
- 2. What are contusions caused by?
- 3. What should contusions be monitored for?
- 4. What can a hematoma cause?
- 5. What are the symptoms of hematoma?
- 6. What are hematomas caused by?
- 7. What is a crush injury?
- 8. What do acute wounds result from?
- 9. What are chronic wounds caused by?
- 10. When can infection spread locally and become systemic?

# Exercise 6. Translate the following word combinations into English:

Критична точка; недостатня циркуляція; травматичні поранення; порівняно повільний процес; збиратися під шкірою; розпадатися на складові частини; розривати тканину; забите місце; синець; пошкоджувати кров'яні судини; небезпечні рани; розповсюджуватися локально.

# Exercise 7. Choose one or more words from list B to modify the verbs from list A so as to make sense. Translate the word combinations into the native language:

List A: to cause; to refer to; to damage; to be caused by; to appear; to be misused; to collect; to be applied; to scrape off; to be referred to; to lead to; to hit; to spread.

List B: the topmost layer of the skin; a critical point; as a "through-and-through; tissue damage; over a long period of time; the dermis; locally; a clean, sharp-edged object; under the skin; in reference to incisions; a contusion; a sharp injury; linear (regular) or stellate.

# **Exercise 8. Find the appropriate sentence endings:**

- 1. Incisions or incised wounds, caused by...
- 2. Contusions, more commonly known as ...
- 3. Lacerations, irregular tear-like wounds caused by ...
- 4. Abrasions (grazes), superficial wounds in which the topmost layer of the skin (the epidermis)...
  - 5. Hematomas, also called a blood tumor, caused by...
  - 6. Puncture wounds, caused by an object puncturing the skin, such as ...
  - 7. Penetration wounds, caused by an object such as a knife...
  - 8. Crush injury, caused by a great or extreme amount of...
  - 9. Gunshot wounds, caused by a bullet or similar projectile driving ...
  - a) ...is scraped off.
  - b) ...into or through the body.
  - c) ...entering and coming out from the skin.
  - d) ...a clean, sharp-edged object such as a knife, a razor or a glass splinter.
  - e) ... a nail or needle.
  - f) ... force applied over a long period of time.
- g) ....damage to a blood vessel that in turn causes blood to collect under the skin.
  - h) ... bruises, caused by a blunt force trauma that damage tissue under the skin.
  - i) ... some blunt trauma.

# **Exercise 9. Approve or contradict the following statements:**

- 1. Injuries are far too common for some people.
- 2. At some point in most of our lives, we will receive a wound.
- 3. Whether major or minor, any injury that tears flesh is not only painful, but dangerous.
- 4. The simplest puncture can breed tetanus, and a small cut can turn septic with infection.
- 5. Knowing the basics of what types of wounds are more serious than others can help you treat them.
- 6. As mentioned above, any wound can be serious, no matter how small, if ignored.
  - 7. In the case of punctures, a thorough cleansing and an update on your

tetanus shot is a must.

8. Deep cuts, where blood is pumping with each heartbeat, need not an immediate call to 911.

### **Exercise 10. Translate the following sentences into English:**

- 1. Відомо, що рана це пошкодження шкіри, слизової оболонки чи глибокої тканини, що супроводжується болем та кровотечею і має вигляд зяючого отвору.
- 2. Рани бувають: вогнепальні, різані, рубані, колоті, вдарені, рвані, вкушені, розміжчені.
- 3. Вогнепальні рани виникають внаслідок кульового або осколкового поранення. Вони бувають: наскрізні, якщо є вхідні і вихідні ранові отвори; сліпі, якщо куля або осколок застряє у тканині тіла та дотичні, якщо куля або осколок пошкоджує шкіру і м'які тканини тіла, але не застряє в них.
- 4. Різані і колоті рани мають невелику зону пошкоджень, рівні краї, стінки ран зберігають життєздатність, дуже кровоточать, менше піддаються інфікуванню.
- 5. Колоті проникаючі рани при невеликій зоні пошкодження шкіри чи слизової оболонки можуть мати значну глибину і бути дуже небезпечними через пошкодження внутрішніх органів і занесення до них інфекції.
- 6. Рубані рани бувають різної глибини, з удареними місцями і розміжченими м'якими тканинами тіла.
  - 7. Вкушені рани завжди інфіковані слиною.
- 8. Рани можуть бути поверхневими або проникаючими в порожнину черепа, грудну клітку, черевну порожнину. Проникаючі рани найнебезпечніші.

#### **Test**

- 1. ... is an irregular or jagged break or tearing of the skin.
- a) laceration b) graze c) contusion d) bruise e) scar
- 2. Accidents with sharp objects or tools, and car accidents are the most common causes of ... wounds.
  - a) jagged b) open c) closed d) linear e) stellate
- 3. ...are presented as a painful bruise with reddish to bluish discoloration that spreads over the injured area of skin.
  - a) cyanosis b) contusions c) incisions d) punctures e) stab wounds
  - 4. A sharp object, such as a knife, shard of glass, or razor blade, causes....
  - a) graze b) incision c) crushed wound d) injury e) contusion
- 5. ... are usually caused by an external high pressure force that squeezes part of the body between two surfaces.
  - a) crushed wounds b) small grazes c) bruises d) scars e) breaks
- 6. ...is a small hole caused by a long, pointy object, such as a nail, needle, or ice pick.

- a) Closed wound b) hematoma c) punctured wound d) contusion e) incised wound
- 7. If your wound is on an arm or leg, raising it above your heart will also help ... the bleeding.
  - a) speed b) slow c) interrupt d) prevent e) finish
- 8. ....are usually removed in 3 to 14 days, depending on where the cut is located.
  - a) dressing b) scars c) medications d) antibiotics e) stiches
- 9. If the wound isn't in an area that will get dirty or be rubbed by clothing, you don't have to ...it.
  - a) cover b) bandage c) heal d) wash e) clean
- 10. ...apply firm but gentle pressure on the cut with a clean cloth, tissue or piece of gauze.
- a) To stop the bleeding b) To protect the wound c) To speed up healing d) To clean the wound e) To relieve pain

#### **SHOCK**

**Exercise 1. Topic Vocabulary:** 

agitation, <i>n</i>	[ˌædʒi'teiʃn]	хвилювання		
anxiety, n	[əŋˈzaiəti]	занепокоєння, турбота		
arrest, v	[əˈrest]	зупинятися		
cardiogenic, adj.	[ˌka:diəv'dʒenik]	кардіогенний		
clammy, adj	[ˈklæmi]	липкий та вологий на дотик		
confusion, n	[kənˈfjuːʒn]	сплутана свідомість		
dehydration, n	[ˌdi:hai'dreisən]	зневоднення		
frightening, adj	['fraitnin]	лякаючий, жахливий		
hypoxia, n	[hai'pɒksiə]	гіпоксія, нестача кисню		
hypersensitivity, n	[,haipə,sensi'tiviti]	надмірна чутливість		
hypovolemic, adj.	[haipəuvə'li:mik]	гіповолемічний		
irreversible, adj	[ˌiri'vɜ:səbəl]	незворотній		
insufficient, adj	[ˌinsəˈfiʃint]	недостатній		
lack, n	[ˈlæk]	брак чогось		
neurogenic, adj.	[ˌnjʊrəˈdʒenik]	нейрогенний		
saline, <i>n</i>	[seilain]	сольовий розчин		
seizure, n	[ˈsi:ʒə]	судома		
shallow, adj	[ˈʃæləu]	неглибокий, поверховий		
worsen, v	['w3:sn]	погіршувати		

# Exercise 2. Form the words with the help of the prefix hyper-. Translate the pair of words into Ukrainian:

**Model:** sensitivity – hypersensitivity

чутливість – надмірна чутливість

Activity, function, tension, ventilation, vitaminosis, secretion, keratosis, glycaemia, thyroidism, thermia (-thernia).

# Exercise 3. Form adjectives with the help of the suffix –ish. Translate the pair of words into Ukrainian:

**Model:** *blue – bluish* (i.e. resembles blue, but not pure blue)

синій – синюватий, синявий

gray, yellow, white, green, tall, small, normal, mild, cold, new, boy, girl, child, woman, book.

#### **Exercise 4. Translate the word-combinations into Ukrainian:**

Insufficient blood flow, to require immediate treatment, a traumatic or frightening emotional event, shallow breathing, bluish lips and fingernails, intraabdominal infections, to release toxins, allergic reaction to insect stings, congestive heart failure, spinal cord injury, to determine the cause, a poor prognosis, in minor cases, damage to vital organs, to worsen rapidly.

# Exercise 5. Read and translate the text: SHOCK

Shock is a life-threatening medical condition as a result of insufficient blood

flow throughout the body. Shock often accompanies severe injury or illness. Medical shock is a medical emergency, and it can lead to other conditions such as lack of oxygen in the body's tissues (hypoxia), heart attack (cardiac arrest) or organ damage. It requires immediate treatment as symptoms can worsen rapidly.

Medical shock is different from emotional, or psychological, one as it can occur following a traumatic or frightening emotional event.

The main symptom of shock is low blood pressure. Among other symptoms we may observe rapid, shallow breathing and rapid weak pulse; cold, clammy skin; dizziness and confusion; glassy eyes; anxiety or agitation; seizures; low or no urine output; bluish lips and fingernails; sweating; chest pain.

There are five types of shock: septic, anaphylactic, cardiogenic, hypovolemic, neurogenic.

Septic shock results from bacteria multiplying in the blood and releasing toxins. It can be caused by intra-abdominal infections (such as a rupture of appendix), pneumonia, or meningitis. Its treatment includes antibiotics and fluids.

Anaphylactic shock occurs as a result of severe hypersensitivity or allergic reaction to insect stings, medicines or foods (nuts, berries, seafood). At the early stage, it can be treated with IV injection of adrenaline (epinephrine).

Cardiogenic shock happens when the heart is damaged and unable to supply sufficient blood to the body any more. It can be the end result of a heart attack or congestive heart failure. Cardiogenic shock has a poor prognosis: only 1/3 of patients survive, as it is often difficult to treat and overcome.

Hypovolemic shock is caused by severe blood and fluid loss because of traumatic injury. It is treated with fluids (saline) in minor cases, and blood transfusions in severe cases. Hypovolemic shock responds well to medical treatment if initiated early.

Neurogenic shock is caused by spinal cord injury as a result of a traumatic accident or injury. This type of shock is the most difficult to treat as spinal cord damage is often irreversible. That's why it has a very poor prognosis. Nevertheless, its treatment includes surgery, absolute immobilization and anti-inflammatory drugs.

As far as we can see, treatment for each type of shock depends on the cause. Tests will help to determine it. However, as a rule, IV fluids and medications that raise blood pressure are administered.

Shock is a medical emergency. If you suspect shock, especially after an injury, even if a person seems stable, get him to an emergency department immediately. Prompt treatment can save his life because the sooner shock is treated, the less is the damage to vital organs.

### **Exercise 6. Answer the questions:**

- 1. What kind of medical condition is shock?
- 2. What conditions can shock lead to?
- 3. What are the symptoms of shock?
- 4. How many types of shock are there?
- 5. What is the cause of septic shock?
- 6. What is hypovolemic shock treated?

- 7. What types of shock do not respond to treatment? Why?
- 8. What is a common treatment for shock?

# Exercise 7. Join nouns with corresponding adjectives. Translate the word-combinations:

1. life-threatening	a) blood flow
2. clammy	b) eyes
3. insufficient	c) arrest
4. shallow	d) condition
5. glassy	e) emergency
6. cardiac	f) breathing
7. medical	g) damage
8. irreversible	h) skin

#### **Exercise 8. Match symptoms with their definitions:**

1	hypoxia	a)	lack of clearness of mind
2	seizure	b)	excretion of salty liquid through the skin pores
3	dizziness	c)	condition when a patient cannot control his mover
4	confusion	d)	worry and tension caused by apprehension
5	sweating	e)	not blinking enough gives the eyes a shiny appear
6	glassy eyes	f)	not deep respiration
7	anxiety	g)	lack of oxygen in body's tissues
8	shallow breathing	h)	feeling when the head goes round

1	2	3	4	5	6	7	8

# **Exercise 9. Give the English equivalents:**

Супроводжувати важку травму, брак кисню в тканинах тіла, запаморочення та сплутана свідомість, відбуватися внаслідок, виділяти токсин, скляний зір та судоми, розрив апендикса, надмірна чутливість до ліків, значна втрата рідини, підвищити кров'яний тиск, незначний та тяжкий випадки, підозрювати шоковий стан після травми, невідкладна допомога.

# Exercise 10. What would you do in case of shock? Say whether the following statements true or false:

- 1. Move a person who is suspected to have neurogenic shock.
- 2. Wait for the symptoms of shock worsen, and only then call in an ambulance.
- 3. Immediately call in an ambulance.
- 4. Leave a person alone with his trouble.
- 5. Have a person lie down on the back with the feet elevated above the head to increase blood flow to vital organs.
- 6. Raise a person's feet above the head to increase blood flow to vital organs even if raising legs causes pain.
  - 7. Check a person's breathing every two minutes.
  - 8. Don't give a person anything to drink so as to avoid loss of consciousness.

#### **Exercise 11. Insert preposition where necessary:**

- 1. Any health troubles start with damages ... cells.
- 2. He got spinal cord injury ... a result of a car crash.
- 3. Shock is an emergency condition that threatens ... life.
- 4. Toxins, released ... the blood by bacteria, cause septic shock.
- 5. Only a small number of people survive ... cardiogenic shock.
- 6. In summer a lot of people suffer allergic reactions ... insect stings.
- 7. The injury after the accident was accompanied ... the state of shock.
- 8. Medical shock differs ... the emotional one which follows some frightening event.

#### Exercise 12.

#### a) Read N.I. Pirogov's description of a soldier in a state of shock:

The following is the description of shock made by famous surgeon N. Pirogov: "You see a wounded soldier without an arm or leg lying still at the dressing station. He does not cry or moan or complain. He is indifferent to everything. He does not ask for anything. His eyes are immovable and he gazes into the distance. His body is cold. His face is pale as that of a corpse. His pulse is like a thread, barely noticeable. His wound and skin are almost completely insensitive. The patient displays a sign of sensation only by contraction of the facial muscles. Sometimes this state passes off within a few hours. And sometimes it persists unchanged until death."

#### b) Answer the following questions:

- 1. Why doesn't a soldier without a leg or an arm make any sound?
- 2. What does he look like? Why?
- 3. How can you describe his glance?
- 4. Is it possible to feel his pulse?
- 5. How does he reveal his sensations?
- 6. How often does the state of shock subside?

### **Exercise 13. Put questions to the underlined words:**

- 1. The initial state of shock is manifested by <u>hypoxia</u>.
- 2. Thready pulse can be due to the decrease of blood flow.
- 3. The classification system for shock was created in 1972.
- 4. <u>If not timely treated</u>, shock will proceed to the progressive stage.
- 5. That critically ill patient developed septic shock after surgical intervention.
- 6. The severity of shock is graded <u>on a 1-4 scale depending on the physical signs</u>.
- 7. Low blood perfusion results in <u>cellular damage and inadequate tissue</u> <u>function</u>.
- 8. Hypovolemic, anaphylactic and neurogenic shock respond <u>well</u> to medical therapy.

### Exercise 14. Re-write sentences opening the brackets. Translate them into Ukrainian:

- 1. Glassy eyes (to be) the sign of stupor and shock.
- 2. Adrenaline always (to use) to arrest anaphylactic shock.

- 3. He said that his neurosis (to worsen) after the emotional shock.
- 4. She (to suffer) from allergy to mosquitoes' bites since childhood.
- 5. Two months ago he had meningitis which (to lead) to septic shock.
- 6. His case was minor, so the doctor (to administer) him IV infusion of saline.
- 7. At the moment the students (to observe) how the surgeon (to operate) on the patient's heart.
- 8. Absolute immobilization (to recommend) if an injured person seems to have a spinal cord injury.

#### Exercise 15. Fill in the table and describe the notion "shock":

Medical shock	
Signs and symptoms	
Types of shock	
Treatment	
Complications	

# \*Exercise 16. Find Ukrainian / Russian equivalents to the given English proverbs. What are their main ideas?

- 1. Good health is above wealth.
- 2. Prevention is better than cure.
- 3. A sound mind in a sound body.
- 4. Wealth is nothing without health.
- 5. The remedy is worse than the disease.
- 6. An apple a day keeps the doctor away.
- 7. After dinner sit a while, after supper walk a mile.
- 8. Early to bed and early to rise makes a man healthy, wealthy and wise.

### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть та вивчіть наступні словосполучення:

- 1. недостатній потік крові
- 2. супроводжувати важкі травми
- 3. брак кисню в тканинах тіла
- 4. синюшність губ та кінчиків пальців
- 5. значна втрата рідини
- 6. підвищити кров'яний тиск
- 7. несприятливий прогноз
- 8. невідкладна допомога
- 9. виявити причину
- 10. пошкодження органів

### II. Дайте відповіді на наступні питання:

- 1. What kind of medical condition is shock?
- 2. What are the symptoms of shock?
- 3. How many types of shock are there?
- 4. What is the cause of septic shock?
- 5. What is a common treatment for shock?

### IV. Розкрийте поняття терміну: шок

#### **BENIGN TUMOURS**

Exercise 1. Topic vocabulary:

Excreise 1. Topic v	3 7 3 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		
adenoma, n	[ædi 'nəumə]	аденома	
benign, adj	[bi 'nain]	доброякісний	
cancerous, adj	[ˈkænsərəs]	раковий	
chemotherapy, n	[ki:mə 'θerəpɪ]	хіміотерапія	
cryotherapy, n	[kraıəυ 'θerəpı]	кріотерапія(лікування	
		холодом)	
curettage, n	[kjʊərɪ 'tɑ:ʒ('retidʒ)]	кюретаж, вискоблювання	
dermabrasion, n	[d3:mə'breizən]	видалення дерми	
electodesiccation, n	[desi'keisəin]	фульгурация (висушування	
		струмом)	
fibroid, n	['faibroid]	фіброзна пухлина	
hemangioma, n	[hi:məndʒi 'əʊmə]	гемангіома, судинний невус	
ischaemia, n	[i'ski:miə]	місцеве недокрів'я	
leiomyoma, n	[lei əʊmai əʊmə]	лейоміома (з гладкої м'язової	
		тканинин)	
malignant, adj	[mə 'lignənt]	злоякісний	
mole, n	[ˈməʊl]	родимка	
nevus, n	['ni:vəs]	невус, родимка	
polypus, n	['pɒlipəs]	поліп	
sclerotherapy, n	[sklıərəʊˈθerəpɪ]	склеротерапія(розширення	
		вен)	
sheath, n	[ 'ʃi:θ]	оболонка	
uterine, adj	[ˈjuːtərain]	утробний	
verruca, n	['və'rukə]	бородавка	

### **Exercise 2. Memorize the meaning of the following term-elements:**

Benign tumours are often referred to the terms that contain a prefix related to the cell type in which the tumour originated and a suffix such as — **oma** (but not - carcinoma, -sarcoma, or -blastoma which are generally cancers). Common prefixes include:

Adeno-(gland)

**Chondro**-(cartilage)

**Erythro**- (red blood cell)

Hemangio- (blood vessels)

**Hepato**- (liver)

Lipo- (fat)

**Lympho**- (white blood cell)

Melano- (pigment cell)

**Myelo**-( bone marrow)

Myo- (muscle)

Osteo- (bone)

Uro- (bladder) Retino- (eye) Neuro- (brain)

# Exercise 3. Find the continuations to complete the following sentences. Read and translate into Ukrainian:

- 1. Fibroma...
- 2. Melanoma...
- 3. Osteoma...
- 4. Adenoma...
- 5. Rhabdomyoma...
- 6. Chondroma...
- 7. Seminoma...
- 8. Chondroma...
- 9. Lipoma...
- 10. Teratoma...
- a) ... is a benign tumour of cartilage-forming cells.
- b) ... are benign tumours of gland-forming cells.
- c) ... contain many cell types such as skin, nerve, brain and thyroid.
- d) ... is a tumour of pigmented skin cells.
- e) ....is a tumour of male reproductive cells.
- f) ... is a benign tumour derived from fibrous connective tissue.
- g) ... is a benign tumour of striated muscle.
- h) ... is a common benign tumour composed of fatty tissue.
- i) ... is a benign cartilaginous growth or neoplasm.
- j) ... is a benign tumour composed of bone or bonelike tissue.

### Exercise 4. Read and translate the following word – combinations:

A benign tumor; a mass of cells; the ability to invade; to be defined as; a slower growth rate; an outer surface; fibrous sheath; uterine fibroids; to produce negative health effects; to cause nerve damage; an enclosed space; overproduce certain hormones; adrenocortical adenomas; a process known as tumour progression; the most effective approach; to shrink blood vessels; to cut off the blood supply; not lifethreatening; cosmetic concerns; do not respond to chemotherapy or radiation therapy; under certain circumstances

# Exercise 5. Read and translate the text: BENIGN TUMOURS

A benign tumor is a mass of cells that lacks the ability to invade neighboring tissue or metastasize. These characteristics are required for a tumor to be defined as cancerous and therefore benign tumors are non-cancerous. Also, benign tumors generally have a slower growth rate than malignant tumors and the tumor cells are usually more differentiated (cells have normal features). Benign tumors are typically surrounded by an outer surface (fibrous sheath of connective tissue) or remain with the epithelium. Common examples of benign tumors include moles, nevi, warts,

birthmarks, polypi and uterine fibroids (leiomyomas).

Although benign tumors will not metastasize or locally invade tissues, some types may still produce negative health effects. The growth of benign tumors produce a "mass effect" that can compress tissues and may cause nerve damage, reduction of blood to an area of the body (ischaemia), tissue death (necrosis) and organ damage. The mass effects of tumors are more prominent if the tumor is within an enclosed space such as the cranium, respiratory tract, sinus or inside bones. Tumors of endocrine tissues may overproduce certain hormones, especially when the cells are well differentiated. Examples include thyroid and adrenocortical adenomas.

Although most benign tumors are not life-threatening, many types of benign tumors have the potential to become cancerous (malignant) through a process known as tumor progression. For this reason and other possible negative health effects, some benign tumors are removed by surgery.

Some benign tumors need no treatment; others may be removed if they cause problems such as seizures, discomfort or cosmetic concerns. Surgery is usually the most effective approach and is used to treat most benign tumors. In some case other treatments may be of use. Adenomas of the rectum may be treated with sclerotherapy, a treatment in which chemicals are used to shrink blood vessels in order to cut off the blood supply. Most benign tumors do not respond to chemotherapy or radiation therapy, although there are exceptions; benign intracranial tumors are sometimes treated with radiation therapy and chemotherapy under certain circumstances. Radiation can also be used to treat hemangiomas in the rectum. Benign skin tumors are usually surgically dissected but other treatments such as cryotherapy, curettage, electrodesiccation, laser therapy, dermabrasion, chemical peeling and topical medication are used.

To prevent the development of any tumors we should undergo systematic screening in order to detect small irregularities or tumors as early as possible even if there are no clear symptoms present. Breast self-examination, mammograms, testicular self-examination, and Pap smears are common screening methods for various tumors.

### **Exercise 6. Answer the following questions:**

- 1. What tumor lacks the ability to invade neighboring tissue or metastasize?
- 2. What is the main difference between benign and malignant tumors?
- 3. What are the most common examples of benign tumors?
- 4. What effect may the growth of benign tumors produce?
- 5. In what cases are the mass effects of tumors more prominent?
- 6. What process is known as tumor progression?
- 7. What is the most effective approach in treating benign tumors?
- 8. In what cases may sclerotherapy be used?
- 9. What benign tumors are sometimes treated with radiation therapy and chemotherapy?
  - 10. What are the common screening methods for various tumors?

# Exercise 7. Give adjectives to the following nouns. Translate into Ukrainian. Make up the sentences of your own:

Model: Cancer – cancerous

Chemistry, therapy, surgery, health, hormone, cranium, respiration, connection, fiber, efficacy, malignancy, cell, lymph, gland, immunity, genetics, electricity, presence, absence, testicle, muscle, uterus, diagnosis, nerve, system, vessel.

**Exercise 8. Match the following terms with their definitions:** 

	0	
1. birthmark	a) is a small vascularized growth arising from the surface	
	of a mucous membrane, having a rounded base or a	
	stalklike (stem) projection (prominence).	
2. wart (verruca)	b) is a nonmalignant collection of pigmented cells in the	
	skin being flat or raised, smooth or hairy	
3. uterine fibroid	c) is any congenital growth or pigmented blemish (defect)	
(leiomyoma)	on the skin; birthmark or mole.	
4. mole	d) is any firm abnormal elevation of the skin caused by a	
	virus.	
5. naevus	e) is a benign tumour, composed of fibrous and muscular	
	tissue, occurring in the wall of the uterus and often causing	
	heavy menstruation.	
6. polypus	f) is a blemish or new growth on skin formed before birth,	
	usually brown or dark red.	

# Exercise 9. Match the following procedures used in treatment of tumors with their definitions:

a)	cryotherapy	1. the treatment of tumors by penetrating radiation such
		as X-rays, beta or gamma rays produced by radioactive
h)	chemotherapy	isotopes.
	chemotherapy	2. the branch of medicine concerned with treating
		disease, injuries by means of manual or operative
c)	curettage	procedures by incision into the body;
		3. treatment of disease, especially cancer, by means of
<u>d)</u>	radiotherapy	chemical agents;
	radiomerapy	4. medical treatment in which all or part of the body is
		subjected to cold temperatures, as by means of ice packs;
e)	surgery	5. the scrapping of the skin or internal surface of an
		organ or body cavity by means of a spoon-shaped
f)	electrodesiccation	instrument(curette) usually to remove diseased tissue or to
		obtain a specimen for diagnostic purposes;
46	1 · · · · · · · · · · · · · · · · · · ·	6. the destruction of tissue (warts, growths, nevi) by
(fu	lguration)	means of high-frequency diathermy (local heating of the
		body tissues with an electric current for medical or
g)	dermabrasion	surgical purposes) instrument;
		7. a procedure in cosmetic surgery in which rough facial
		skin is removed by scrubbing;

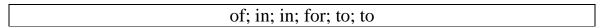
h) laser therapy	8. treatment with a thin beam of any electromagnetic
	radiation, such as infrared or microwave radiation

# Exercise 10. Complete the word combinations using the following expression. Read and translate them. Use given expression in the sentences of your own:

In order to ...

- to invade neighboring tissue or metastasize.
- to be defined as cancerous.
- to compress tissues and cause nerve damage.
- to overproduce certain hormones.
- to become cancerous (malignant) through a process known as tumor progression.
  - to shrink blood vessels to cut off the blood supply.
  - to respond to chemotherapy or radiation therapy.
  - to prevent the development of any tumors
  - to undergo systematic screening.

# Exercise 11. Complete the case history with the prepositions from the box below. Translate into Ukrainian:



Following 3 weeks... unexplained morning headaches, M.K., a 42-year old man, went ...his local doctor. He had no vomiting or nausea, no seizures, simply headaches. His local doctor found M.K. to have a normal neurological exam, but ordered a plain CT head scan. This showed a 4 cm diameter lesion or mass located ... the right hemisphere, ... the frontal lobe, and there appeared to be mild swelling or "shift" associated with it. To better define the lesion, M.K.'s doctor ordered a brain MRI, with and without contrast. This study showed the lesion in better detail. The lesion only very faintly took up the contrast agent, was round overall with some irregular margins, and appeared to be a solid mass. The radiologist suspected this was a primary brain tumor, most likely a glioma such as an astrocytoma. M.K. was given a prescription ... oral steroid to assist in reducing the brain swelling, and expeditiously referred ... a neurosurgeon.

### Exercise 12. Put the questions to the underlined parts of the sentences:

Case History

A 15-year-old boy was presented to <u>Apollo Cancer Hospital</u> with complaints of neck pain, tingling sensation and weakness of upper limbs for the past 2 weeks. MRI (magnetic resonance imaging) of the brain and MR angiogram showed <u>an expansile(dilatable) mass in the left cerebellopontine (CP) region.</u> The patient was diagnosed with haemangioblastoma.

<u>Craniotomy</u> was planned as management measure. <u>During the surgery</u>, surgeons found that tumour was highly vascularised, adherent to medulla hence further surgical intervention was not done and patient was referred for CyberKnife.

The patient was treated with <u>CyberKnife at a total dosage of 21Gy in three fractions (7 Gy/Fr) to the target.</u> The patient tolerated the treatment <u>well</u>. A significant improvement in the clinical symptoms and a significant decrease in the contrast-enhancing solid mass were observed <u>at third month following the treatment.</u> Currently, the patient is doing well and is on regular follow-up.

Discussion

Optic nerve sheath meningiomas are benign tumours that arise from the optic nerve sheath and are surrounded by numerous critical structures. Fractionated radiation therapy with CyberKnife provides highly conformal dose distribution in these critically located tumours.

# Exercise 13. Open the brackets and translate the case history into Ukrainian:

#### **Case History**

At the age of 16, Kelly Lee (*to involve*) in a motor vehicle accident. She not (*to wear*) a seatbelt and (*to eject*) from the overturned vehicle. Fortunately, ground and air paramedics (*to get*) to her soon after the accident. She (*to be*) unconscious at the scene but breathing, had obvious head and limb injuries, and was intubated for her helicopter flight back to the hospital.

The ER (*Emergency Room*) was alerted about her condition *en route*, and the full Trauma Team (to mobilize) for her arrival. A general surgeon, ER specialist, orthopedic surgeon, and neurosurgeon rapidly (to assess) her top to toe upon her arrival, and the usual blood tests and imaging studies rapidly (to carry) out. Despite having sustained several rib fractures, a broken arm and leg, moderate lung injuries and a small laceration of her liver, her spine CT (increased intracranial pressure) (to show) no fracture or dislocation. Her head CT (to show) a small blood clot on the surface of her brain, a few areas of brain tissue bruising, a nondisplaced skull fracture, some brain swelling, but no major life-threatening brain injury. She (to take) to the trauma ICU (intensive care unit), however, the surgeons elected to place \*EVD in the right side of K.L.'s brain to allow her ICP to be monitored and treated as needed. This was because her neurological exam was unreliable owing to the sedatives and muscle relaxants she had on board, and also because the orthopedic surgeons would need to take K.L. to the OR (operating room) for her fractures. Having an EVD in place would (to provide) some degree of monitoring for K.L.'s brain throughout the orthopedic procedure. Emergency consent for the EVD placement (to obtain) by two of the neurosurgeons in the absence of any relatives or other contacts.

\*An external ventricular drain (EVD is a device used in neurosurgery that relieves raised intracranial pressure.

#### Exercise 14. Translate into English and make up the sentences of your own:

Доброякісна пухлина; здібність метастазуватися; характерна риса; волокниста оболонка сполучної тканини; викликати негетивну дію на здоров'я; ріст доброякісної пухлини; бути причиною пошкодження органа; некроз тканини; всередині кісток: пухлина, що загрожує життю; видаляти за допомогою оперативного втручання; найбільш ефективні методи лікування; реагувати на

хіміотерапію та променеву терапію; підлягати систематичному обстеженню

# Exercise 15. Arrange the following sentences in a correct order to describe the following term «доброякісні пухлини»:

- 1. Radiation, chemotherapy and surgery are the most effective approaches in treating many benign tumors.
- 2. Breast self-examination, mammograms, testicular self-examination, and Pap smears are the most common screening methods for various tumors.
- 3. Benign tumors are typically surrounded by an outer surface (fibrous sheath of connective tissue) or remain with the epithelium.
- 4. A "mass effect" due to the growth of benign tumors may cause nerve damage, ischemia, tissue death and organ damage.
- 5. A benign tumor is a mass of cells that lacks the ability to invade neighboring tissue or metastasize.

#### **Exercise 16. Translate into English using active vocabulary:**

- 1. Доброякісна пухлина це новоутворення, патологічний процес, зумовлений обмежено-неконтрольованим розмноженням клітин, без ознак інвазії та метастазування.
- 2. Великі за розмірами доброякісні пухлини теж можуть порушувати критично функції організму, та навіть приводять до смерті та можуть трансформуватись у злоякісні пухлини (малігнізація).
- 3. Деякі доброякісні пухлини (наприклад аденома простати) розглядаються як передракові стани.
- 4. Доброякісні пухлини характерезуються повільним ростом, при цьому без проростання у сусідні тканини (експанисивний ріст), в більшості випадків обмежені капсулою.
- 5. При пальпації мають гладку поверхню, не болять, легко зміщуються, не метастазують.
  - 6. Доброякісна пухлина може розвинутися з будь-якої тканини.
- 7. В залежності від її типу розрізняють види пухлин: епітеліоми розвиваються з плоского і циліндричного епітелію та утворюються на шкірі і слизових оболонках та аденоми розвиваються із залозистого епітелію. Можуть виникати в будь-якому органі, де  $\epsilon$  залозистий епітелій.
- 8. Основні види лікування доброякісних пухлин це оперативний чи консервативний.
- 9. Оперативний метод лікування передбачає проведення хірургічного втручання з метою повного видалення пухлини. Особливо попопулярною методою видалення поверхневих доброякісних пухлин стала кріодеструкція.
- 10. Консервативний метод лікування передбачає застосування хімічних речовин лікувальних засобів.

### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть наступні словосполучення:

1. здібність метастазуватися

- 2. волокниста оболонка сполучної тканини
- 3. ріст доброякісної пухлини
- 4. пухлина, що загрожує життю
- 5. видаляти за допомогою оперативного втручання
- 6. найбільш ефективні методи лікування
- 7. реагувати на хіміотерапію та променеву терапію
- 8. підлягати систематичному обстеженню
- 9. викликати негетивну дію на здоров'я
- 10. бути причиною пошкодження органа

#### II. Дайте відповідь на наступні питання:

- 1. What tumor lacks the ability to invade neighboring tissue or metastasize?
- 2. What is the main difference between benign and malignant tumors?
- 3. What consequences may a "mass effect" due to the growth of benign tumors produce?
- 4. What are the most effective approaches in treating benign tumors?
- 5. What are the most common screening methods for various tumors?

#### **III. Розкрийте поняття:** доброякісні пухлини

#### **Test**

1. A benign tumor is a mass of cells that lacks the ability .... neighboring tissue or metastasize.

a)invades b)invade c)to invade d)invaded e)invading

- 2. Also, benign tumors generally have a ... growth rate than malignant tumors.
  - a) slower b) slow c) slowest d) more slow e) the most slowest
- 3. Benign tumors are typically surrounded ... an outer surface or remain with the epithelium.
  - a) by b) on c) for d) from e) out
- 4. Although benign tumors will not metastasize or locally invade tissues, some types may still ... negative health effects.
  - a) reduce b) reveal c) develop d) produce e) confuse
- 5. Many types of benign tumors have the potential to become cancerous (malignant) through a process known as ....
  - a) tumour regression b) tumour collection c) tumour reduction
  - d) tumour pressure e) tuour progression
- 6. ... is usually the most effective approach and is used to treat most benign tumors.
  - a) therapy b) surgery c) cryotheraty d) radiation e) chemotherapy
- 7. To prevent the development of any tumors we should undergo systematic ... in order to detect small irregularities or tumors as early as possible.
  - a) enquiring b) monitoring c) X-ray examining
  - d) screening e) imagining
  - 8. The scrapping of the skin or internal surface of an organ or body cavity by

means of a spoon-shaped instrument(curette) usually to remove diseased tissue or to obtain a specimen for diagnostic purposes is called as ....

- a) massage b) visage c) curettage
  - visage c) curettage d) heritage
- 9. A blemish or new growth on skin formed before birth, usually brown or dark red is called as ....
  - a) wart b) verruca c) nevus d) birthmark e) acne
- 10. Adenomas of the rectum may be treated with ..., a treatment in which chemicals are used to shrink blood vessels in order to cut off the blood supply.
  - a) chemotherapy
- b) cryotheraty
- c) thermotherapy
- d) sclerotherapy e) radiotherapy

#### **MALIGNANT TUMOURS**

**Exercise 1. Topic Vocabulary:** 

neoplasm, n	['niəuplæsm]	неоплазма, новоутворення	
cancerous, adj	[ˈkænsərəs]	раковий	
malignant, adj	[mə 'lignənt]	злоякісний	
benign, adj	[bi 'nain]	доброякісний	
carcinoma, n	[ka:si 'n əumə]	ракове новоутворення,	
		карцинома	
sarcoma, n	[sa:'k əumə]	саркома	
lymphoma, n	[lim 'f əumə]	лімфома	
leukemia, n	[lu ˈkiːmiə]	лейкемія	
adenoma, n	[adi 'nəumə]	аденома	
pollutant, <i>n</i>	[pə 'lu:tənt]	забруднююча речовина	
hereditary, adj	[hi 'reditəri]	спадковий	
chemotherapy, n	[ki:mə ˈθerəpi]	хіміотерапія	
likelihood, n	['laiklihud]	ймовірність, вірогідність	
current, n	[ˈkʌrənt]	дійсний	
approximately, adj	[ə'proksimətli]	приблизно	
quit, v	['kwit]	кидати	
irregularity, n	[i'regju 'læriti ]	відхилення від норми	
testicular, adj	[te'stikjulə]	тестикулярний, що	
	_	відноситься до яєчка	
smear, n	[smiə]	мазок	
X-rays ( <i>pl.</i> ), <i>n</i>	['eks-reis]	рентгенівське проміння	

# Exercise 2. Read the word combinations and sentences with the new words and translate them into Ukrainian:

**Hereditary**: a hereditary disease; a hereditary trait; hereditary collagen dysplasia; hereditary defect; hereditary melanoma; hereditary thrombopathias. The environment may affect the degree to which a hereditary trait develops. Organisms can transmit some hereditary conditions to their offspring even if the parents do not show the trait.

e) collage

**Irregularity**: treatment for menstrual irregularities; irregular heartbeat; irregularities in some areas of the brain.

**Malignant:** malignant edema; malignant adenoma; malignant bone cyst; malignancy of male reproductive system. This malignant disease, more fatal than the smallpox, broke out among the soldiers and sailors, and destroyed the greater part of them.

**Chemotherapy:** chemotherapy drugs; adjuvant chemotherapy; oral chemotherapy; intravenous (IV) chemotherapy; topical chemotherapy; intraperitoneal (IP) chemotherapy. Chemotherapy is used to slow the growth of cancer cells or to keep the cancer from spreading to other parts of the body.

Exercise 3. Find corresponding equivalents:

1. malignant neoplasm	1. в поточному році	
2. non-cancerous tumors	2. виявляти відхилення від норми	
3. pollutants of environment	3. злоякісні новоутворення	
4. hereditary disease	4. неракові пухлини	
5. X-ray examination	5. забруднювачі навколишнього	
6. to quit smoking	середовища	
7. in the current year	6. спадкова хвороба	
8. to examine smear	7. рентгененологічне обстеження	
9. in all likelihood	8. кинути палити	
10. testicular self-examination	9. вивчати мазок	
11. the likelihood of cancer	10. тестикулярна самоперевірка	
12. to detect irregularities	11. вірогідність захворювання раком	
12. to detect friegularities	12. цілком ймовірно	
	12. Ameni miobipito	

Exercise 4. Match the following terms with their definitions:

1. imaging	a) in medicine, is used to identify an unrecognized disease in individuals without signs or symptoms. Screening interventions are designed (предназначать) to identify disease in a community early, thus enabling earlier intervention and management in the hope to reduce mortality and suffering from a disease.
2. screening,	b) In medicine, is the observation of a disease, condition or one or several medical parameters by using a medical monitor over time (через некоторое время).
3. monitoring	c) Medical is the technique and process used to create images of the human body or parts and their function for clinical purposes or medical science (including the study of normal anatomy and physiology). Among them are: Ultrasound Imaging, MRI (Magnetic Resonance Imaging), Medical X-rays, such as: Radiography (рентгенография), CT (Computed Tomography), Fluoroscopy (рентгеноскопия), Mammography.

# Exercise 5. Give adjectives to the following nouns. Translate into Ukrainian:

Model: Cancer - cancerous

1.	cancer	15.	gland
2.	medicine	16.	environment
3.	malignancy	17.	genetics
4.	cell	18.	immunity
5.	distance	19.	heredity
6.	lymph	20.	obesity
7.	blood	21.	microscopy
8.	difference	22.	possibility
9.	presence	23.	testicle
10.	absence	24.	currency
11.	lung	25.	mouth
12.	bone	26.	liver
13.	cartilage	27.	connection
14.	muscle	28.	support

#### **Exercise 6. Translate the word combinations into your language:**

A malignant neoplasm; unregulated cell growth; to grow uncontrollably; to invade nearby parts of the body; spread to more distant parts of the body; through the lymphatic system or bloodstream; supportive tissues; benign tumors; to be non-cancerous; life- threatening; in the bone marrow; to afflict the human; environmental pollutants; existing genetic faults; faults within cells; to be entirely hereditary; screening tests; medical imaging; the likelihood of developing cancer; a current tobacco user; Breast self-examination; Pap smears; immune system tissue; the pituitary gland; approximately five to ten percent.

### Exercise 6. Read and translate: MALIGNANT TUMOURS

Cancer, by definition, is a disease of the genes. A gene is a small part of DNA, which is the master molecule of the cell. Genes make "proteins," which are the ultimate workhorses of the cells. It is these proteins that allow our bodies to carry out all the many processes that permit us to breathe, think, move, etc.

Throughout people's lives, the cells in their bodies are growing, dividing, and replacing themselves. Many genes produce proteins that are involved in controlling the processes of cell growth and division. An alteration (mutation) to the DNA molecule can disrupt the genes and produce faulty proteins. This causes the cell to become abnormal and lose its restraints on growth. The abnormal cell begins to divide uncontrollably and eventually forms a new growth known as a "tumor" or neoplasm (medical term for cancer meaning "new growth").

In a healthy individual, the immune system can recognize the neoplastic cells and destroy them before they get a chance to divide. However, some mutant cells may escape immune detection and survive to become tumors or cancers.

Cancer, known medically as a malignant neoplasm, is a broad group of various diseases, all involving unregulated cell growth. In cancer, cells divide and grow uncontrollably, forming malignant tumors, and invade nearby parts of the body. The cancer may also spread to more distant parts of the body through the lymphatic system or bloodstream.

There are over 200 different known cancers that afflict human the most of them may be classified into five broad groups:

Carcinomas are characterized by cells that cover internal and external parts of the body such as lung, breast, and colon cancer.

Sarcomas are characterized by cells that are located in bone, cartilage, fat, connective tissue, muscle, and other supportive tissues.

Lymphomas are cancers that begin in the lymph nodes and immune system tissues.

Leukemias are cancers that begin in the bone marrow and often accumulate in the bloodstream.

Adenomas are cancers that arise in the thyroid, the pituitary gland, the adrenal gland, and other glandular tissues.

Pay attention to the following seven symptoms as possible warning signals of cancer: changes in the size, color, or shape of a wart or a mole; a sore that does not heal; persistent cough, hoarseness, or sore throat; a lump or thickening in the breast or elsewhere; unusual bleeding or discharge; chronic indigestion or difficulty in swallowing; any change in bowel or bladder habits.

Many other diseases, besides cancer, could produce the same symptoms. However, it is important to have these symptoms checked, as soon as possible, especially if they linger. The earlier a cancer is diagnosed and treated, the better the chance of it being cured.

Determining what causes cancer is complex. Many things are known to increase the risk of cancer, including tobacco use, certain infections, radiation, lack of physical activity, obesity, and environmental pollutants. These can directly damage genes or combine with existing genetic faults within cells to cause the disease. Approximately five to ten percent of cancers are entirely hereditary.

Cancer can be detected in a number of ways, including the presence of certain signs and symptoms, screening tests, or medical imaging. Once a possible cancer is detected it is diagnosed by microscopic examination of a tissue sample. Cancer is usually treated with chemotherapy, radiation therapy and surgery.

Most people don't realize that cancer is preventable in many cases. Learning what causes cancer and what the risk factors are is the first step in cancer prevention. Many cancer risk factors can be avoided, thus reducing the likelihood of developing cancer.

Cancers that are closely linked to certain behaviors are the easiest to prevent. For example, choosing not to smoke tobacco or drink alcohol significantly lower the risk of several types of cancer - most notably lung, throat, mouth, and liver cancer. Even if you are a current tobacco user, quitting can still greatly reduce your chances of getting cancer.

The aim of cancer treatment is to remove all or as much of the tumor as possible and to prevent the recurrence or spread of the primary tumor.

The decision on which type of treatment is the most appropriate depends on the type and location of cancer, the extent to which it has already spread, the patient's age, sex, general health status and personal treatment preferences. The major types of treatment are: surgery, radiation, chemotherapy, immunotherapy, hormone therapy, and bone-marrow transplantation.

Some cancer prevention is based on systematic screening in order to detect small irregularities or tumors as early as possible even if there are no clear symptoms present. Breast self-examination, mammograms, testicular self-examination, and Pap smears are common screening methods for various cancers.

#### **Exercise 8. Answer the questions:**

- 1. What disease is medically known as a malignant neoplasm?
- 2. How may the cancer usually spread to more distant parts of the body?
- 3. What tumors are considered to be non-cancerous?
- 4. What groups are the known cancers that afflict a human classified into?
- 5. What is known to increase the risk of cancer?
- 6. What faults within cells to cause the disease?
- 7. In what ways can cancer be detected?
- 8. What is cancer usually treated with?
- 9. What is considered to be the first step in cancer prevention?
- 10. What are the most common screening methods for various cancers?

#### **Exercise 9. Choose the proper continuation on the right:**

1.	Carcinomas	a) are cancers that arise in the thyroid, the pituitary gland,
		the adrenal gland, and other glandular tissues.
2.	Sarcomas	b) are any malignant tumours derived from epithelial
		tissue.
3.	Lymphomas	c) are tumours, usually benign, occurring in glandular
		tissue.
4.	Leukemias	d) are usually malignant tumours arising from connective
		tissue.
5.	Adenomas	e) are any acute or chronic diseases characterized by a
		gross proliferation of leucocytes, which crowd into the
		bone marrow, spleen, lymph nodes.

#### **Exercise 10. Memorize the meaning of the following term-elements:**

\*Cancers are often referred to by terms that contain a prefix related to the cell type in which the cancer originated and a suffix such as -sarcoma, -carcinoma, or just - oma. Common prefixes include:

- Adeno- = gland
- Chondro- = cartilage
- Erythro- = red blood cell
- Hemangio- = blood vessels
- Hepato- = liver

- Lipo- = fat
- Lympho- = white blood cell
- Melano- = pigment cell
- Myelo- = bone marrow
- Myo- = muscle
- Osteo- = bone
- Uro- = bladder
- Retino- = eye
- Neuro- = brain

# Exercise 11. Complete the following sentences choosing suitable words from the box. Translate into Ukrainian:

hepatoblastoma; neuroma; myoma; neuroblastoma; lipoma; osteoclastoma; retinoblastoma; neuroblastoma; chondroblastoma; melanoma; glioma

- 1. ... any tumour composed of nerve tissue.
- 2. ... a malignant tumour of the liver.
- 3. ... a benign tumour composed of muscle tissue
- 4. ... a tumor derived from chondroblasts having the appearance of a mass of well-differentiated cartilage.
- 5. ... a common benign tumour composed of well- -differentiated fatty tissue.
- 6. ... a malignant tumour composed of melanocytes, occurring esp. in the skin, often as a result of excessive exposure to sunlight.
  - 7. ... are tumours of bone caused by proliferation of osteoclast cells.
  - 8. ... a rare malignant tumour of the retina occurring in infants.
- 9. ... a malignant tumour that derives from neuroblasts, occurring mainly in the adrenal gland.
- 10. ... a tumour of the brain and spinal cord, composed of neuroglia (glia глия, нейроглия, нервная ткань) cells and fibres.

### **Exercise 12. Put questions to the underlined words:**

- 1. The chances of surviving the disease vary greatly by the type and location of the cancer and the extent of disease at the start of treatment.
- 2. While cancer can affect people of all ages, and a few types of cancer are more common in children, the risk of developing cancer generally increases with age.
- 3. <u>In 2007</u>, cancer caused about 13% of <u>all human deaths</u> worldwide (7.9 million).
- 4. <u>Chemotherapy in addition to surgery</u> has proven useful in a number of different cancer types including: <u>breast cancer</u>, colorectal cancer, <u>pancreatic cancer</u>, <u>osteogenic sarcoma</u>, <u>testicular cancer</u>, ovarian cancer, and certain lung cancers.
- 5. The physician John Hill described tobacco snuff (нюхальний тютюн) as the cause of nose cancer in 1761.
- 6. <u>After a diagnosis is made</u>, doctors find out how far the cancer has spread and determine the stage of the cancer.

- 7. With the widespread use of the microscope in the 18th century, it was discovered that the 'cancer poison' spread from the primary tumor through the lymph nodes to other sites ("metastasis").
- 8. Skin cancer will be able to be prevented by <u>staying in the shade</u>, <u>protecting</u> <u>yourself with a hat and shirt when in the sun, and using sunscreen.</u>

# Exercise 13. Complete the case history with the prepositions from the box below. Translate into Ukrainian:

of; in; in; for; to; to

Following 3 weeks... unexplained morning headaches, M.K., a 42-year old man, went ...his local doctor. He had no vomiting or nausea, no seizures, simply headaches. His local doctor found M.K. to have a normal neurological exam, but ordered a plain CT head scan. This showed a 4 cm diameter lesion or mass located ... the right hemisphere, ... the frontal lobe, and there appeared to be mild swelling or "shift" associated with it. To better define the lesion, M.K.'s doctor ordered a brain MRI, with and without contrast. This study showed the lesion in better detail. The lesion only very faintly took up the contrast agent, was round overall with some irregular margins, and appeared to be a solid mass. The radiologist suspected this was a primary brain tumor, most likely a glioma (глиома- опухоль центральной нервной системы, происходящая из клеток нейроглии) such as an astrocytoma астроцитома (глиальная опухоль). М.К. was given a prescription ... oral steroid to assist in reducing the brain swelling, and expeditiously referred ... a neurosurgeon.

# Exercise 14. Open the brackets and translate the case history into Ukrainian:

At the age of 16, Kelly Lee (to involve) in a motor vehicle accident. She not (to wear) a seatbelt and (to eject) from the overturned vehicle. Fortunately, ground and air paramedics (to get) to her soon after the accident. She (to be) unconscious at the scene but breathing, had obvious head and limb injuries, and was intubated for her helicopter flight back to the hospital. The ER (Emergency Room) was alerted about her condition en route, and the full Trauma Team (to mobilize) for her arrival. A general surgeon, ER specialist, orthopedic surgeon, and neurosurgeon rapidly (to assess) her top to toe upon her arrival, and the usual blood tests and imaging studies rapidly (to carry) out. Despite having sustained several rib fractures, a broken arm and leg, moderate lung injuries and a small laceration of her liver, her spine CT (increased intracranial pressure) (to show) no fracture or dislocation. Her head CT (to show) a small blood clot on the surface of her brain, a few areas of brain tissue bruising, a nondisplaced skull fracture, some brain swelling, but no major life-threatening brain injury. She (to take) to the trauma ICU (intensive care unit- отделение интенсивной терапии), however, the surgeons elected to place an\* EVD ( external ventricular drain) in the right side of K.L.'s brain to allow her ICP to be monitored and treated as needed. This was because her neurological exam was unreliable owing to the sedatives and muscle relaxants she had on board, and also because the orthopedic surgeons would need to take K.L. to the OR (operating room) операционная for her fractures. Having an EVD in place would (to provide) some degree of monitoring for K.L.'s

brain throughout the orthopedic procedure. Emergency consent for the EVD placement (to obtain) by two of the neurosurgeons in the absence of any relatives or other contacts.

#### **Exercise 15. Translate the following word combinations into English:**

3 медичної точки зору; лімфатична система та кровоток; поведінка; профілактика раку; загальний скринінг; перш за все; зменшувати шанси; виявити злоякісну пухлину; мазок Папаниколау; кидати курити; зменшувати ризик; тісно звязаний з поведінкою; ймовірність захворювання на рак; гістологічне дослідження; зразок тканини; медичне зображення; відсутність фізичної активності; вражати; забруднювачі навколишнього середовища; генетичні помилки (дефект, вада) в клітинах; небезпечний для життя; нерегульований ріст клітин; вражати (про хворобу); самостійне обстеження грудей; ожиріння; доброякісна неоплазма; залозиста тканина.

помилки (дефект, вада) в клітинах; небезпечний для життя; нерегульований ріст
клітин; вражати (про хворобу); самостійне обстеження грудей; ожиріння;
доброякісна неоплазма; залозиста тканина.
Test
1. Cancer, known medically as, is a broad group of various diseases, all involving unregulated cell growth.
a) a benign neoplasm b) a malignant neoplasm c) a non-cancerous neoplasm d) a cancerous neoplasm e) a neoplasm
2. The cancer may also more distant parts of the body through the lymphatic system or bloodstream.
a) spreads to b) spread to c) to spread to d) spreading to e) being spread to
3. There are over different known cancers that afflict human the most of them may be classified into five broad groups. a) 2 b) 20 c) 200 d) 202 e) 222
4 are cancers that begin in the bone marrow and often accumulate in the bloodstream.
a) sarcoma b) lymphoma c) leukemia d) leukemias e) adenoma
5. Many things are known the risk of cancer, including tobacco use, certain infections, radiation, lack of physical activity, obesity, and environmental pollutants.  a) increase b) increasing c) to have increased d) to be increased e) to increase
<ul><li>6. Approximately of cancers are entirely hereditary.</li><li>a) five to five percent b) five to twenty percent c) five to two percent</li></ul>

e) five to six percent

c) easy

8. Cancers that are closely linked to certain behaviors are the ... to prevent.

c) preventive

d) easier

e) the easyest

7. Most people don't realize that cancer is .... in many cases.

e) unpresentable

d) five to ten percent

d) protective

a) easiest

a) unpreventable b) preventable

b) the easiest

- 9. Some cancer prevention is based on systematic screening .... small irregularities or tumors as early as possible even if there are no clear symptoms present.
  - a) in order to demonstrate b) in order to develop c) in order to damage
  - d) in order to delay e) in order to detect
- 10. Breast self-examination, mammograms, testicular self-examination, and Pap smears are .... for various cancers.
  - a) common screening methods
- b) common searching methods
- c) common monitoring methods
- d) common researching methods
- e) common imaging methods

#### **HEADACHE**

#### **Exercise 1. Topical vocabulary:**

appropriate, adj	[əˈprəʊpriət]	відповідний
encounter, v	[ɪnˈkaʊntə]	зустрічати(ся)
fatiguability, n	[fætɪgəˈbɪlɪtɪ]	стомлюваність
formidable, adj	[ˈfɔːmɪdəbəl]	сильний, значний
inclined, adj	[ˌɪnˈklaɪnd]	схильний
indisposition, n	[neliziedsipa]	легке нездужання
omit, v	[əˈmɪt]	пропускати
omit, <i>v</i> peculiarity, <i>n</i>	[əˈmɪt] [pikju:liˈæriti]	пропускати особливість
•	. ,	1 2
peculiarity, n	[pikju:li'æriti]	особливість
peculiarity, <i>n</i> squeezing, <i>adj</i>	[pikju:li'æriti] [ˈskwiːzɪŋ]	особливість стискающий

#### Exercise 2. Form the new nouns with the meaning "inflammation":

Model: appendix – appendicitis

Retina, sinus, esophagus, parodont, meninges, pulp, bronchus, vagina, trachea, myocardium, nerve, gingiva, thyroid, mastoid, conjunctiva.

#### **Exercise 3. Translate the word combinations:**

A great value, the so-called vascular variant, chronic cardiac insufficiency, cardiovascular diseases, disturbed brain circulation, brain vessels, infectious inflammatory processes, sensation of weakness, throbbing pain, pressing pain, squeezing pain, appropriate treatment, the brain matter and brain membranes, increased fatiguability, moderate headache, internal organs, insufficiency of brain circulation, prolonged attack, cervical radiculitis.

#### **Exercise 4. Translate. Pay attention to the possible word combinations:**

**Pain:** severe pain, pressing pain, throbbing pain, burning pain, squeezing pain, sensitive to pain, insensitive to pain, to cause pain, to accompany pain, to relieve pain, drugs for pain, pain-killers;

**Pressure:** blood pressure, arterial pressure, low blood pressure, high blood pressure, elevated blood pressure, to measure blood pressure, to control blood pressure, a wrist blood pressure monitor;

**Moderate:** moderate pain, a moderate headache, moderate leukocytosis, moderate elevation of temperature, moderate reduction of blood sugar, moderate enlargement of the liver

# Exercise 5. Translate the names of diseases analyzing the word structure using the words in the box below:

Remember: medical terms ending in -itis indicate inflammatory diseases

Model: The term hepatitis consists of two parts: hepatic and –itis.

"Hepatic" means related to the liver, "-itis" means inflammation.

Hepatitis means inflammation of the liver.

Pharyngitis, encephalitis, nephritis, myocarditis, bronchitis, laryngitis, rhinitis, gingivitis, appendicitis, cyctitis, cholecyctitis

gallbladder, brain, myocardium, larynx, (urinary) bladder, gingival (gum), kidney, appendix, bronchus (bronchi), nose, pharynx

#### **Exercise 6. Translate the sentences paying attention to the Participles:**

- 1. The blood coming from the lungs is rich in oxygen.
- 2. The accompanying symptoms of the flu are high temperature, muscular pains and vomiting.
  - 3. The count made a week ago was normal.
  - 4. Scarlet fever is characterized by rash covering the whole trunk.
  - 5. The excised mass measured 2 cm in diameter.
  - 6. The patient operated on yesterday complained of a severe headache.
  - 7. Being very ill, he couldn't go to university.

# Exercise 7. Read and translate the text: HEADACHE

Headache is one of the most frequent symptoms encountered in medical practice.

The great value in development of a headache is given to the vascular factor. The so-called vascular variant of a headache is observed in many vascular, cardiovascular diseases and pathological conditions, including migraine, hypertonic disease, arterial hypotension, atherosclerosis of brain vessels, disturbed brain circulation, acute and chronic cardiac insufficiency.

Other kind of a headache develops in pathological processes, primarily affection of sensitive receptors and nerves. It may include headache observed in pathological processes in the brain (a tumour, abscesses, hematomas and so on), in infectious inflammatory processes of the brain matter and brain membranes (encephalitis, meningitis, arachnoiditis), in cervical radiculitis, diseases of the nose, ears, eyes.

The third kind of a headache is caused basically by damage of muscles of the skull.

Character of a headache can be various. A throbbing or pressing headache localized in the area of the back of the head and accompanied by dizziness, tinnitus, nausea (sometimes vomiting), "flash spots" before eyes on the background of high arterial pressure (it is most often observed in hypertonic crisis) are signs of a headache of this etiology. In a low level of arterial pressure, the headache in most cases is moderate, the most expressed in the mornings. It is often accompanied by sensation of weakness, indisposition, formidable yawning. Such patients are inclined to faints, they often complain of palpitation and increased fatiguability.

Headache is a frequent symptom of some acute and chronic diseases of internal organs, in particular diseases of the heart.

Some patients complain of squeezing headaches, dizziness in prolonged attack of stenocardia, in acute myocardial infarction. In some cases in the patients with acute myocardial infarction the headache is accompanied by losing of consciousness.

Complete medical, neurological and psychiatric examinations are sometimes necessary to get at the root of the trouble. The ophthalmoscopic examination must never be omitted when the symptom of headache is evaluated.

Treatment of a headache depends on underlying etiology or cause, but commonly involves analgesics.

#### **Exercise 8. Answer the following questions:**

- 1. What kind of symptom is headache?
- 2. In what cardiovascular diseases is headache observed?
- 3. What other symptoms can headache be accompanied by?
- 4. What kinds of headache are there?
- 5. What kind of a headache do patients complain of in angina and acute myocardial infarction?
  - 6. What examinations are necessary to understand the root of the trouble?
- 7. What examination must never be omitted when the symptom of a headache is evaluated?
  - 8. How can a headache be treated?

#### **Exercise 9. Agree or contradict the following statements:**

- 1. The vascular factor of headache is observed in migraine, arterial hypertension and other diseases associated with damaged vessels.
  - 2. There are no headaches in pathological processes in the brain.
- 3. The ophthalmoscopic examination should be excluded in evaluation of headache.
  - 4. A complete history is essential in frequent headaches.
- 5. Headaches in myocardium infarction arise due to insufficiency of brain circulation.
  - 6. In low arterial pressure the headache is the most expressed in the evening.
  - 7. Headache is a rare sign in some acute and chronic diseases of inner organs.

#### **Exercise 10. Match the terms with their definitions:**

- 1. headache a) the decreased capacity or complete inability of an organism, organ, or part to function normally because of excessive
- 2. throbbing stimulation or prolonged exertion;
  - b) abnormally low arterial blood pressure;
- 3. tinnitus c) an involuntary intake of breath through a wide open mouth; usually triggered by fatigue;
- 4. meningitis d) noise such as buzzing, ringing, or whistling, heard in the ear without an external stimulus and having multiple causes including
- 5. migraine infection, trauma, and drugs;e) a severe headache, usually affecting only one side of the head, characterized by sharp pain and often accompanied by nausea,

6. hypotention vomiting, and visual disturbances;

f) to beat rapidly or violently, as the heart;

7. fartigue g)pain in the head, caused by dilation of cerebral arteries, muscle

contraction, insufficient oxygen in the cerebral blood, reaction to

8. yawning drugs, etc.;

h) inflammation of the meninges of the brain and the spinal cord,

most often caused by a bacterial or viral infection.

#### **Exercise 11. Find English equivalents of the following word combinations:**

Найчастіший симптом, чутливі рецептори, хронічна серцева недостатність, тривалий напад, відповідне лікування, оболонки мозку, запальний процес, серцево-судинні захворювання, шийний радикуліт, пульсуючий головний біль, запаморочення і шум у вухах, нудота та блювання, гіпертонічний криз, втрата свідомості, недостатність мозкового кровообігу, помірний головний біль, стискаючий головний біль.

# Exercise 12. Put the special questions to the underlined words and words combinations:

- 1. Headache may be observed in pathological processes in the brain.
- 2. Headache due to low arterial pressure is often accompanied by <u>weakness</u>, <u>formidable yawning and fatiguability</u>.
- 3. <u>The ophthalmoscopic</u> examination must never be omitted when the symptom of headache is evaluated.
  - 4. Some patients complain of <u>squeezing</u> headaches, dizziness.
  - 5. <u>Headache</u> is accompanied by losing of consciousness.
  - 6. Character of a headache can be various.
  - 7. In the low level of arterial pressure the headache is moderate.
- 8. <u>Chronic headaches</u> are often associated with anxiety, depression, or a specific group of mental disorders known as somatoform disorders.

### Exercise 13. Description of pain. It's interesting to remember.

Patient's description of pain: Explanation

Aching (an ache) a general pain, often in muscles and joints

Boring a drill Burning with heat

Colicky an intermittent pain which varies in intensity Crampy (cramp) an involuntary spasmodic muscle contraction

Crushing a feeling of pressure

Dull a background pain, opposite of sharp

Gnawing biting

Gripping a feeling of tightness Scalding like boiling water

Sharp acute Stabbing like a knife

Stinging sharp, burning, like an insect sting

#### **Exercise 14. Translate into English:**

- 1. Другий вид головного болю розвивається при патологічних процесах, перш за все поразці чутливих рецепторів і нервів.
  - 2. Третій вид головного болю викликаний пошкодженням м'язів черепа.
- 3. Головний біль третього типу характеризується пульсуючим або тиснучим болем в потилиці.
- 4. Хворий скаржиться на запаморочення, шум у вухах, нудоту і навіть блювоту.
- 5. Головний біль частий симптом деяких гострих і хронічних захворювань внутрішніх органів.
- 6. Офтальмологічний огляд повинен бути зроблений при оцінці головного болю.
- 7. При низькому рівні артеріального тиску головний біль носить помірний характер.
- 8. При головному болю пацієнти скаржаться на стискаючий быль та запаморочення.

#### **Exercise 15. Translate into English paying attention to the Participles:**

- 1. Будучи дуже зайнятий, він не відразу почув мене.
- 2. Дівчинка, що плаче, була голодна.
- 3. Вона любила дивитися на граючих дітей.
- 4. Читаючи англійську книгу, він виписав багато нових слів.
- 5. Вислуховуючи серце хворої дитини, лікар почув шуми.
- 6. Пошкоджена рука дуже хворіла.
- 7. Готуючись до операції, хірург завжди обробляє руки ретельно.

### Exercise 16. Open the brackets and put the correct form of the verb:

- 1. She (to lose) consciousness and (to transfer) to our hospital on the same day.
- 2. Quick action by a doctor sometimes (to reduce) the damage or (to prevent) more damages.
- 3. In both patients, brain abscess (to develop) at the stroke lesion site after they (to have) an infectious complication.
  - 4. If the stroke already (to happen) blood clotting drugs are not effective.
- 5. The ischemic infarction (to demonstrate) by computer assisted tomography and angiography.
- 6. After the patient (to develop) the left hemiparesis, he (to admit) to our hospital.
- 7. As soon as a doctor (to gather) all information he (to make) a diagnosis of a suspected ischemic stroke.
- 8. Occlusion of small brain arteries very rarely (to cause) by the intravascular lymphoma, which first (to describe) in 1959.

# Exercise 17. Fill in the table "symptoms of hypotension" using information from the text.

the level of blood pressure	
the intensity of a headache	
the time of the maximum pain	
expression	
the accompanying symptoms	
other patients' complaints	

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення:

- 1. найчастіший симптом
- 2. шийний радикуліт
- 3. пульсуючийбіль
- 4. стискаючий біль
- 5. помірний біль
- 6. запаморочення та шум у вухах
- 7. запальний процес
- 8. сильне зівання
- 9. гіпертонічний криз
- 10. недостатність мозкового кровообігу

#### II. Дайте відповіді на наступні питання:

- 1. What is headache?
- 2. What kinds of headache do you know?
- 3. What kind of a headache do patients complain of in stenocardia and acute myocardial infarction?
  - 4. What examinations are necessary to understand the root of the trouble?
  - 5. What must never be omitted when the symptom of a headache is evaluated?

#### ІІІ. Розкрийте поняття: головний біль, гіпертонія

#### **Test**

1. Headache	e is one of the mo	ost symptoms in m	edical practice.	
a) rare	b) short-term	c) frequent	d) long-term	e) obscure
2. Headach	e is a frequent sy	mptom of diseases	of internal organs	, in particular

- diseases of the...
  - a) liver b) heart
- c) stomach
- d) kidneys
- e) spleen
- 3. The ... examination must never be omitted when the symptom of headache is evaluated.
  - a) neurological
- b) psychiatric
- c) internal
- d) ophthalmoscopic

- e) cystoscopic
- 4. Headaches in myocardium infarction arise due to insufficiency of...
- a) respiration
- b) pulmonary circulation c) brain circulation
- d) systemic circulation e) kidneys

e patients with lousea b) faint	-			weight
d by rrhea b) constip	ation c) pr	olonged dizziness		dache is
e patients with tiguability.	low arterial	pressure often	complain palpitat	ion and
b) of	c) on	d) about	e) for	
		hological proces	ses primarily affect	ion of
		d) with	e) in	
֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	sea b) faint some cases of the d by rrhea b) constip ing of consciousi e patients with tiguability. b) of headache deve	sea b) faint c) vomiting some cases of the patients with d by reflea b) constipation c) profing of consciousness e) vorte patients with low arterial tiguability.  b) of c) on the headache develops patents and nerves.	sea b) faint c) vomiting d) dizzing some cases of the patients with acute myocarded by refea b) constipation c) prolonged dizzinessing of consciousness e) vomiting e patients with low arterial pressure often oftiguability.  b) of c) on d) about the adache develops pathological process.	some cases of the patients with acute myocardial infarction the head by  rrhea b) constipation c) prolonged dizziness ing of consciousness e) vomiting  e patients with low arterial pressure often complain palpitate tiguability.  b) of c) on d) about e) for headache develops pathological processes primarily affect eptors and nerves.

5. In a low level of arterial pressure, the headache is the most expressed... .

c) back

b) at night c) in the afternoon

6. A pressing or throbbing headache localized in the area of the ... of the head is

d) at dusk

e) low jaw

d) facial part

a) in the evenings

e) in the mornings

due to damage of the skull muscles.

a) temples b) upper jaw

#### **NEUROSES**

Exercise 1. Topic Vocabulary:

Excreise 1. Topic ve	Exercise 1. Topic vocabulary.					
apprehension, <i>n</i>	[ˌæprɪˈhenʃn]	побоювання, недобре				
		передчуття				
arsonist, n	[ˈɑːsənɪst]	підпалювач				
consuming fear	[kənˈsjuːmɪŋ fɪə]	всепоглинаючий страх				
distress, n	[dı'stres]	дистрес, страждання,				
		нездужання				
handle, v	[ˈhændl]	контролювати, справлятися				
hypochondria, n	[haɪpəˈkəndrɪə]	пригнічений стан				
pyromania, n	[pairəʊˈmeiniə]	піроманія				
incapacitate, v	[ˌɪnkəˈpæsɪteɪt]	вивести з ладу, зробити				
		непрацездатним				
interfere, v	[ˌɪntəˈfiə]	заважати, втручатися				
intrusive, <i>adj</i>	[ɪnˈtruːsɪv]	нав'язливий				
in virtually, adv	[ˈvɜːtʃuəli]	практично				
obsessive-compulsive	[əbˈsesɪv	невроз нав'язливих станів				
disorder	kəm'pʌlsɪv					
	dıs'ə:də]					
over-excitation, n	[ˈəʊvə	надмірне збудження				
	ˈεksɪˈteɪʃ(ə)n]					
over-inhibition, n	[ˈəʊvə ˌɪnhɪˈbɪʃn]	надмірне гальмування				
revenge, n	[rɪˈvendʒ]	помста				
rid, v	[rɪd]	позбутися				
trigger, v	[ˈtrɪgə]	провокувати, сприяти				

#### Exercise 2. Read the word combinations and translate them into Ukrainian:

A relatively mild mental illness; an umbrella term used for mental illnesses; work capacity of the nerve cells; to disrupt the brain activity; to be out of proportion to the circumstances of a person's life; to experience feelings of apprehension, worry, and fear; strong unreasonable fears of specific objects; to suffer from intrusive, repetitive, and disturbing thoughts; to be focused on an imagined illness; to lose all self-control as a result of the consuming fear.

# Exercise 3. Write the given words in Singular (remember the words of the Latin and Greek origin) and use them in sentences:

Neuroses, activities, bacteria, crises, children, atria, alveoli, lives, analyses, ganglia, fungi, diagnoses, laboratories, cocci, curricula, bacilli, mice, phenomena, vertebrae, criteria, metastases.

# Exercise 4. Read the and translate the text: NEUROSES

Neuroses are relatively mild mental illnesses that are not caused by organic diseases, involving symptoms of stress but not a radical loss of touch with reality. Though the term neuroses is no longer used formally within the medical community, it

is still a common umbrella term used for mental illnesses such as anxiety, pyromania, obsessive-compulsive disorder, hysteria, and phobias.

The work capacity of the nerve cells in the cerebral cortex is limited, so over-excitation, over-inhibition, or simultaneous overstimulation of both processes or their mobility may disrupt brain activity resulting in a neurosis.

Neuroses are characterized by anxiety, depression, or other feelings of unhappiness or distress that are out of proportion to the circumstances of a person's life. They may impair a person's functioning in virtually any area of his life, relationships, or external affairs, but they are not severe enough to incapacitate the person. Neurotic patients generally do not suffer from the loss of the sense of reality seen in persons with psychoses.

One of the common neuroses is anxiety. A person suffering from anxiety may experience feelings of apprehension, worry, and fear. Physical symptoms are also common with this form of neurosis, including nausea, palpitations, chest pains, and shortness of breath. The person may also experience elevated blood pressure and heart rate, sweating, pale skin, dilated pupils, and trembling. While some anxiety is normal in certain situations, such as when sad, angry, or afraid of a specific situation, those with this form of neurosis may experience anxiety for no known reason or for reasons that should not normally trigger that type of response.

Phobias, a type of anxiety disorder, are characterized by strong unreasonable fears of specific objects, people, situations, or activities. Some common objects of phobias are open or closed spaces, fire, high places, dirt, and bacteria.

Pyromania is another of the common neuroses. A person suffering from pyromania is fixated on fire. A pyromaniac is not the same as an arsonist, as a person suffering from pyromania gains a sense of happiness from fires, whereas an arsonist may set fire for revenge or for personal gain. In general, there are no other symptoms associated with this type of neurosis.

Another of the common neuroses is obsessive-compulsive disorder. Individuals with obsessive-compulsive disorder generally suffer from intrusive, repetitive, and disturbing thoughts. In an attempt to rid themselves of these thoughts, they engage in certain rituals or tasks. Compulsive behaviour includes rituals such as repetitive hand washing or door locking. This leads to a cycle of thoughts and behaviors over which the person feels he or she has little or no control.

Somatoform disorders, which include the so-called hysterical, or conversion, neuroses, manifest themselves in physical symptoms, such as blindness, paralysis, or deafness that are not caused by organic disease. Hysteria is one of the common neuroses. A person suffering from hysteria experiences substantial feelings of fear or other emotions that he or she cannot seem to handle. Often, the fear is focused on an imagined illness or other problem of a specific body part. The person may lose all self-control as a result of the consuming fear.

Psychoneurotic disorders are formed in children more easily than in adults.

### **Exercise 5. Answer the questions to the text:**

- 1. When may the brain activity be disrupted?
- 2. What are the most common symptoms of neuroses?

- 3. What is the principal difference between the neurotic patients and those with psychoses?
  - 4. What physical symptoms are common in anxiety?
  - 5. What do phobias mean?
  - 6. What phobias do you know?
- 7. What do individuals with obsessive-compulsive disorder generally suffer from?
  - 8. What group of neuroses does hysteria belong to?

#### **Exercise 6. Give English equivalents of the following word combinations:**

Повна втрата зв'язку з реальністю; надмірна стимуляція діяльності головного мозку; невроз нав'язливих станів; розширені зіниці; бліда шкіра і тремтіння; відкритий чи замкнений простір; часте миття рук; нав'язлива поведінка; позбутися тривожних думок; проявлятися у фізичних симптомах; сліпота і глухота; зосередитися на уявних хворобах; втратити самоконтроль; всепоглинаючий страх.

### Exercise 7. Find out the wrong use of words and change them by the proper ones:

- 1. Sweating, enlarged blood pressure, and trembling may not be caused by organic diseases.
  - 2. The changes in the bones resulted from calcium insufficiency.
  - 3. The normal palpitation of the adult is 72-80 beats per min.
- 4. Psychoneurotic disorders are relatively easy mental illnesses that are not caused by organic diseases.
  - 5. He had to visit his dentist to extract an ill tooth.
  - 6. Blindness, paralysis, and deafness are the often symptoms in hysteria.
- 7. Elevated heart rate, sweating, pale skin, increased pupils may be the manifestations of neuroses.
  - 8. The neurotic persons can't hand their emotions and feelings.

### Exercise 8. Find out the grammar mistakes and correct them:

- 1. Children may to form serious neurotic disorders.
- 2. Neurosis is characterized by feelings of unhappiness or distress.
- 3. What kind of fears may experience persons with phobias?
- 4. A person's functioning in virtually any area of his life may be impair by psychoneurotic disorders.
  - 5. Does elevated blood pressure may be symptom of anxiety?
  - 6. Persons with psychoses suffers from the loss of the sense of reality.
- 7. The patients, which suffer from conversion neuroses, may be focused on an imagined illness.
  - 8. What do a pyromaniac gains a sense of happiness from?

### Exercise 9. Put questions to the underlined words:

- 1. A person <u>suffering from pyromania</u> is fixated on fire.
- 2. The term *neurosis* was coined by <u>the Scottish doctor William Cullen</u>.

- 3. A person with an inborn strong type of nervous activity may become unbalanced or in active due to <u>faulty upbringing</u>.
  - 4. William Cullen coined the term *neurosis* in 1769.
  - 5. Neuroses impair a person's functioning not enough to incapacitate the person.
- 6. The patient has been suffering from elevated blood pressure and heart rate, sweating, and trembling for three month.
  - 7. Revealing the causes of neuroses will facilitate their rapid cure.
- 8. Over-excitation and over-inhibition of the cortex cells may influence the brain activity unfortunately.
- 9. Neurosis in children is most frequently observed at the age of 2 to 4, 7 to 8, and the period of puberty development.
- 10. When the causes of somatoform disorders are determined the neurotic symptoms will be controlled.

#### **Exercise 10. Open the brackets:**

- 1. The non-biological basis of neurosis (to maintain) with Sigmund Freud at the beginning of the psychoanalytic movement.
- 2. Carl Jung (to see) collective neuroses in politics: "Our world is, so to speak, dissociated like a neurotic".
- 3. Neurotic tendencies (to manifest) themselves as depression, acute or chronic anxiety, obsessive-compulsive tendencies, specific phobias.
- 4. The origin of the term hysteria commonly (to attribute (приписывать) to Hippocrates.
- 5. Hippocrates (to think) that the cause of hysteria was irregular movement of blood from the internal genitalia to the brain.
- 6. During the mid 19th century the term neurosis (to use) as a key to characterize disorders that (to be) neurological in origin.
- 7. Neurotic people (to tend) to have more negative feelings such as depression, anxiety, insecurity.
  - 8. The prescribed anti-depressants (to take) by the end of the next month.

# Exercise 11. a) Read about fears and phobias in famous people and tell about other similar facts you've heard:

George Washington, the first president of the United States of America, had a very serious fear of premature burial. This was clearly expressed on his deathbed, in 1799, where he made his attendants promise that his body would be left out for two days, in case he was still alive.

Woody Allen has taken fear to an extreme. The 74-year-old actor and screenwriter is afraid of practically everything. Although he has normal phobias that cause him to fear heights, enclosed spaces and insects, he also has more abnormal fears. Among his weirder terrors are fears of bright colours, animals, elevators and peanut butter sticking to the roof of his mouth!

Alfred Hitchcock, a famous Hollywood director and producer, had an extreme fear of eggs. He said that they are revolting (вызывают отвращение) to him! He stated that he never tasted an egg in his whole life, and he refused to even be around

them.

Madonna's always been a fearless femme fatale in our eyes. But even kickboxing, leather corset-wearing megastars are afraid of thunderstorms: Madonna is apparently a sufferer of brontophobia, the fear of thunder.

### b) Make up sentences using the words in the right order:

- 1) Jennifer Aniston, all, a fear, Michael Jackson, and, Whoopi Goldberg, have, of flying.
- 2) The, excessive, 34<sup>th</sup>, of, had, an, president, fear of hospitals, the United States, Richard Nixon.
  - 3) the, Orlando Bloom, a, phobia, strange, actor, has, British, pigs, fear, of, the.
- 4) feared, Sigmund Freud, who, the, neurologist, founded, the, school, psychoanalyst, ferns (папоротники), of, psychiatry.

#### **Exercise 12. Translate into English:**

- 1. Однією з причин неврозів  $\epsilon$  внутрішні та зовнішні конфлікти людини.
- 2. Павлов характеризував невроз як хронічне захворювання з порушенням нервової діяльності.
- 3. Пацієнт скаржиться на дратівливість, слабкість та швидку втомлюваність з минулого тижня.
- 4. Невротична депресія проявляється пригніченим настроєм і песимістичними поглядами на майбутнє.
- 5. Відомо, що уникнення стресових ситуацій  $\epsilon$  одним із способів лікування неврозу.
- 6. Антидепресанти повинен підбирати лікар в залежності від його ефективності для даних симптомів неврозу.
- 7. Транквілізатори призначають в мінімальних дозах, щоб уникнути залежності.
- 8. Доведено, що когнітивно-поведінкова терапія  $\epsilon$  найефективнішим лікуванням неврозів.

#### TREATMENT FOR NEUROSES

Exercise 1. Topic Vocabulary.

anxiety-provoking	[æŋˈzaɪətɪ	такі, що викликають тривогу,
	prəˈvəʊkɪŋ]	страх
behavior patterns	[bɪˈheɪvjər pætənz]	моделі поведінки
beta-blockers	[ˈbiːtə blɒkəz]	адреноблокатори
cognitive-behavioral	[ˈkɒgnɪtɪv	когнітивно-поведінкова
therapy	bi heivjərəl]	терапія
establish trust	[ɪsˈtæblɪʃ trʌst]	установити довіру
faulty thinking patterns	[ˈfɔːltɪ ˈθɪŋkɪŋ	неправильні (помилкові)
	'pætənz]	шаблони мислення
multifaceted approach	[ˌmʌltɪˈfæsɪtɪd	комплексний підхід
	əˈprəʊtʃ]	

#### Exercise 2. Read the word combinations and translate them into Ukrainian:

To be treatable to various degrees of success; to include a multifaceted approach; to identify, understand, and change faulty thinking and behaviour patterns; to learn how to control smb's worry; to react to anxiety-provoking situations; to learn relaxation techniques; keep the symptoms of neuroses under control; to establish trust and help the neurotic persons.

# Exercise 3. Explain the difference in the meanings of the following words. Use them in the sentences:

- a) Treat treating treated untreated treatable untreatable
- b) Change changing changed unchanged changeable unchangeable

### Exercise 4. Read and translate the text: TREATMENT FOR NEUROSES

Disorders that are considered a neurosis or neurotic disorder are treatable to various degrees of success. In general, the sooner that the symptoms of neuroses are recognized and treated, the more effective treatment will be. The most effective treatment plans generally include a multifaceted approach and may include medications and psychotherapy.

Disorders that are considered a neurosis are treated with an individualized combination that may include medications, cognitive therapy and anxiety management. Psychotherapy, sometimes known as "talk therapy", may also be prescribed. In psychotherapy, a psychotherapist builds a relationship with a client, establishing trust and helping the client to address the neurosis through such techniques as communication and behaviour therapy.

Cognitive-behavioral therapy, or CBT, is the standard psychotherapy for treating neurotic disorders. It helps sufferers to identify, understand, and change faulty thinking and behaviour patterns, thus allowing neurotic people to learn how to control their worry. The cognitive part of CBT helps by changing the thinking patterns that create and support fears; the behavioral part helps with changing the way sufferers react to anxiety-provoking situations.

A part of cognitive-behavioral therapy can include learning relaxation techniques. In addition to medication and psychotherapy, your doctor or therapist might suggest activities such as meditation, yoga or other types of physical exercise.

Medication can keep the symptoms of neuroses under control while the patient receives psychotherapy. Medications used for treating neurotic disorders include antidepressants, anti-anxiety drugs, and beta-blockers.

Warnings. Never try any medication without prescription from a doctor. Seek the advice of a neurological specialist before starting a new medication since most clinical doctors are not experts in the field of neurology.

Only you can recognize if a medication is right for you after it has been prescribed. Many doctors are quick to prescribe anti-depressants to the neurotic patients. Keep in mind, however, that many of anti-depressant companies have a lot of money for promotion. As a result, never feel guilty for telling a doctor to take you off of a medication that you don't think is working (especially if it is for a child).

#### **Exercise 5. Answer the questions to the text:**

- 1. When will the treatment for neuroses be more effective?
- 2. What includes treatment for neuroses?
- 3. What is psychotherapy?
- 4. What does the abbreviation CBT mean?
- 5. How are neuroses treated with the help of CBT?
- 6. What types of drugs can treat neuroses?
- 7. What should you know before starting drug therapy?
- 8. What should one do if the administered drugs do not help?

#### Exercise 6. Read, open the brackets, and discuss the case history:

Mr. T. K (Patient Reference Number-4285) (to bring) to the clinic with anxiety disorder. He (to suffer) from severe anxiety for last 4-6 months. He (to be) a software engineer with increased work related stress.

He (not can) express his anger. When he (to be) alone he (to get) thoughts of quitting from the job but (not to have) the courage to do so. He (to have) a nervous temperament with lack of confidence. Frequently he (to experience) sensation of itching on his palms and feet, along with repetitive movement of his legs. Due to all of these complaints his sex life (to affect), along with it his relations with other family members also (to affect). His appetite (to increase) when he (to depress). His sleep (to disturb). He often (to suffer) from neck and lower back pains. All of these (to identify) as stress related concerns. Dr. Shah (to study) his case in detail and (to prescribe) him research based medicine for anxiety neurosis.

In 8 weeks Mr. T.K. (to report) to the clinic, he (to feel) better. His body pains (to reduce) and his sleep (to improve). His medication (to continue). In next 8 weeks he (to report) the anxiety to have reduced by 50 %. He said he (not to experience) such relief since quite long time. He (to feel) calmer and relaxed. The itching on his palms and soles (to reduce) considerably.

#### Exercise 7. Open the brackets put the verbs into the appropriate tense:

- 1. The term neurosis (to coin) by the Scottish doctor William Cullen.
- 2. Cullen (to use) the term to describe various nervous disorders and symptoms.
- 3. Neurosis (may, to define) as a "poor ability to adapt to one's environment".
- 4. This patient (to treat) with antidepressants.
- 5. Neuroses (must, to distinguish) from psychoses.
- 6. Conflicts (to create) anxiety which leads to symptom formation.
- 7. If these antidepressants (not to help) you, you (should, to change) them to other ones.
  - 8. Relaxation (to treat) this case of neurosis in several weeks.

### Exercise 8. Put questions to the underlined words:

- 1. Phobias are initiated by classical conditioning of fear to a stimulus.
- 2. Psychoanalitic treatment requires <u>a detailed interpretation of specific events</u> and their meaning for a person.
  - 3. Neuroses can disrupt the life of both patient and family.
  - 4. Specific anxiety also occurs in obsessive-compulsive disorder.

- 5. <u>During the last century</u> serious attempts were made to find out the aetiology of neuroses.
  - 6. Neuritic cases resemble one another to a certain extent.
  - 7. Approximately 90% of population are I'll with neuroses.
  - 8. Obsessive-compulsive disorder often runs throughout the individual's life.

#### **Exercise 9. Translate into English using:**

- a) Complex Subject (Nominative Infinitive Construction)
- 1. Відомо, що люди із слабким типом нервової діяльності більш схильні до нервових розладів.
- 2. Вважають,що когнітивно-поведінкова терапія  $\epsilon$  одним із основних методів лікування неврозів.
- 3. Ліки при неврозах, без сумніву, призначаються лише спеціалістом у неврології.
- 4. Повідомили, що болі у спині та шиї у цього хворого мають невротичне походження.
- 5. Відомо, що люди, які страждають на істерію, відчувають постійний страх і втрачають самоконтроль.
  - b) <u>Complex Object (Objective Infinitive Construction)</u>
- 1. Пацієнт помітив, що свербіж з'являється в ситуації стресу, розумової чи фізичної напруги.
  - 2. Лікар побачив, що зіниці хворого розширені.
- 3. Численні фобії змушують Вуді Аллена боятися висоти, замкненого простору та комах.
  - 4. Лікар дозволив хворому припинити прийом антидепресантів.
  - 5. Гіппократ вважав, що істерія спричинена порушенням кровообігу.

Exercise 10. Describe the term "neuroses" according to the table:

Encicise 100 Describe (	110010000	meeorang to the tablet
General characteristics		
Symptoms		
Analyses		
Treatment		
Complications		

### Завдання для самостійної роботи студентів (СРС)

### 1. Перекладіть наступні словосполучення:

- 1. відносно легке психічне захворювання
- 2. бути сфокусованим на уявній хворобі
- 3. переживати сильний безпричинний страх
- 4. втрачати самоконтроль через всепоглинаючий страх.
- 5. надмірна стимуляція головного мозку
- 6. повна втрата зв'язку з реальністю
- 7. позбутися тривожних думок
- 8. тримати симптоми неврозів під контролем
- 9. включати комплексний підхід
- 10. встановлювати довіру і допомагати пацієнтам з неврозами

#### 2. Дайте відповіді на наступні питання:

- 1. What are the types of neuroses?
- 2. What are the most common symptoms of neuroses?
- 3. What do phobias mean?
- 4. What includes treatment for neuroses?
- 5. What types of drugs can treat neuroses?

#### 3. Розкрийте поняття: неврози

#### **Test**

- 1. Neuroses are ....
- a) organic diseases
- b) mild mental illnesses
- c) caused by organic disease
- d) diseases of reproductive system
- e) diseases of endocrine system.
- 2. Physical symptoms of anxiety include ....
- a) nausea, palpitations, chest pains, and breathlessness
- b) shortness of breath, cough, fever, elevated blood pressure
- c) sweating and radical loss of touch with reality
- d) vomiting, loss of consciousness
- e) fatigue, decreased blood pressure.
- 3. The most characteristic symptom of phobias is ....
- a) fatigue
- b) fixation on fire
- c) unreasonable fears of smth or smb
- d) increased blood pressure
- e) palpitation
- 4. In ... a person suffers from intrusive, repetitive, and disturbing thoughts.
- a) common neuroses
- b) obsessive-compulsive disorder
- c) anxiety
- d) phobias
- e) pyromania
- 5. Conversion neuroses are also called .....
- a) obsessive-compulsive disorders
- b) hysterical neuroses
- c) phobias
- d) anxiety e) pyromania
- 6. Somatoform disorders manifest themselves in physical symptoms, such as ... that are not caused by organic disease.
  - a) blindness, paralysis, or deafness
  - b) pale skin, dilated pupils, and trembling
  - c) behaviour including rituals such as repetitive hand washing or door locking
  - d) shortness of breath, cough, fever, elevated blood pressure

	e) nausea, palpita	tions, chest pains,	and breathlessne	ess		
	<ul><li>a) antidepressants</li><li>b) sedatives, stati</li><li>c) anti-anxiety dr</li><li>d) tranquilizers, s</li></ul>	sed for treating news, anti-anxiety drug ns, and anticonvulugs, tonics, and be tatins and beta-blo s, stimulants and a	gs, and beta-bloos sants eta-blockers ockers			
	8. Seek the advice a) you family doc b) a neurological c) any practicing d) psechologist e) therapuitist	specialist	ting a new anti-o	depression	therapy.	
	. •	oga, and special pl	hysical exercises	s are consi	dered to be f	or
neur	a) a first-line treatment b) a part of "talk therapy" c) an additional treatment d) a part of behavioral therapy e) a part of cognitive therapy					
	10. He said he a) hasn't experient b) hadn't experient c) didn't experient d) wasn't experient e) doesn't experient	nced nce nced	since quite long	time.		
	11. The anti-anxiety medications by the end of the next month. a) will take b) will be taken c) will have been taken d) are going to be taken e) shall be taken					n
	<ul><li>12. These disturb</li><li>a) were identified</li><li>b) identified</li><li>c) had identified</li></ul>	ances as stress l d) are iden		s. e) will be id	entified.	
	<ul><li>13. Some of comma) enclosed</li><li>b) enclosing</li><li>c) enclose</li></ul>	mon phobias are for d) encloses	ear of heights,  e) are enclose	-	d insects.	
	14. The patient no	oted headache a	after mental exer	rtion.		
	a) occur	b) to occur	c) occurs		_	216
					· · · · · · · · · · · · · · · · · · ·	116

	d) is occurr	ed d) oc	curred				
	a) are seem	with a weak to be e) see	b) seem to		•	predisposed to neuroses n to	S.
treatii	ng neurotic o a) is believe	lisorders.	b) believed	l to be		most effective methods c) believes to be	for
	of a specin	fic situation,	people wi	th neuro	osis ma	s, such as when sad, angry ay experience anxiety for e) in spite of	
presci	ribed.	ou can recog b) until				ight for you after it has b e) which	een
don't	19. Never f think is worl a) for	•	_			u off of a medication that y	you
	20. CBT he a) with	-	ing the thinl c) as	• -	terns th d) to	nat create and support fears e) from	

#### **STROKE**

**Exercise 1. Topic Vocabulary:** 

Exercise 1. Topic voc		
altered, adj	[ˈɒltərd]	змінений
aphasia, <i>n</i>	[æˈfeɪzɪə]	афазія, порушення
		мовлення
anti-platelet drugs, n	[drʌgz]	антитромбоцитарні
		препарати
atrial fibrillation, <i>n</i>	[fɪbrɪˈleɪʃən]	миготлива аритмія
cerebrovascular	[ˈæksɪdənt]	порушення мозкового
accident, n		кровообігу
cholesterol, n	[kəˈlɛstərəl]	холестерин
consciousness, n	[ˈkɒnʃəsnɪs]	свідомість
disturbance, <i>n</i>	[dɪˈstɜːbəns]	порушення
interruption, <i>n</i>	[ˌɪntəˈrʌpʃn]	порушення, переривання
modifiable, adj	['məʊdɪfaɪəbl]	такий, що можна змінити
neurosurgery, n	[ˌnjʊərəʊˈs3ːdʒərɪ]	нейрохірургія
pressure, n	['preʃə(r)]	тиск
stroke, <i>n</i>	[strəʊk]	інсульт
suffer a disease, v	[ˈsʌfə(r)]	перенести захворювання
transient ischemic	[ˈtrænziənt ɪˈskiːmɪk	швидкоминуче
attack, n	əˈtæk]	порушення мозкового
		кровообігу, «міні-інсульт»
visual field, <i>n</i>	[ˈvɪʒuəl fiːld]	поле зору

## Exercise 2. Read the word combinations and sentences with the new words and translate them into Ukrainian:

**Accident:** cerebrovascular accident; car accident. She died in an accident. Try to avoid having an accident. We never planned to have a third child – it was a happy accident.

**Damage:** neurological damage; cartilage damage from a sports injury. The storm did considerable damage to the crops. Taking regular doses of antimalarial drugs can have long-term side effects such as hearing loss and liver and kidney damage.

**Factor:** risk factors; lifestyle factors; environmental factors; factor of time; factor of safety.

**Hemorrhage:** subarachnoid hemorrhage; hemorrhagic stroke; hemorrhagic shock; internal hemorrhage.

**Consciousness:** loss of consciousness; nature of human consciousness. The word is a thing in our consciousness.

Exercise 3. Complete the table with the missing words (you may need a dictionary):

VERB	NOUN	ADJECTIVE
	loss	

to disturb		
		intended
to formulate		
		affected
	speech	

#### Exercise 4. Translate the following word combinations into Ukrainian:

Rapid loss of brain function, disturbance in the blood supply to the brain, inability to move one or more limbs, altered taste, inability to understand or formulate speech, an inability to see one side of the visual field, the most important modifiable risk factor of stroke, interruption of the blood supply, to result from rupture of a blood vessel, the increased intracranial pressure, the leaking blood compressing the brain, an embolic stroke.

#### **Exercise 5. Do you know that:**

- a) Statins are a class of drugs used to lower cholesterol levels.
- b) Anti-platelet drugs are intended to prevent and/or reverse platelet aggregation in arterial thrombosis, most prominently in myocardial infarction and ischemic stroke.
- c) Clot busting medications break up blood clots. During a heart attack or stroke, clot busters, also called thrombolytics, dissolve the blood clot that is blocking the artery and help to restore blood flow. These medications are injected into the arm through an intravenous (IV) line.
- d) Carotid endarterectomy (CEA) is a surgical procedure used to prevent stroke, by correcting stenosis (narrowing) in the common carotid artery. Endarterectomy is the removal of material on the inside (end-) of an artery.

## Exercise 6. Read and translate the text: STROKE

A stroke, or cerebrovascular accident (CVA), is the rapid loss of brain function due to disturbance in the blood supply to the brain. This can be due to ischemia (lack of blood flow) caused by blockage (thrombosis, arterial embolism), or a hemorrhage. As a result, the affected area of the brain cannot function, which might result in an inability to move one or more limbs on one side of the body (paralysis), inability to understand or formulate speech (aphasia), an inability to see one side of the visual field, or altered taste, smell, hearing.

A stroke is a medical emergency and can cause permanent neurological damage and death. Risk factors for stroke include old age, high blood pressure, previous stroke or transient ischemic attack (TIA), diabetes, high cholesterol, tobacco smoking and atrial fibrillation. High blood pressure is the most important modifiable risk factor of stroke. It is the second leading cause of death worldwide.

An ischemic stroke is occasionally treated in a hospital with thrombolysis (also known as a "clot buster"), and some hemorrhagic strokes benefit from neurosurgery. Prevention of recurrence may involve the administration of anti-platelet drugs such as aspirin and dipyridamole, control and reduction of high blood pressure, and the use of statins. Selected patients may benefit from carotid endarterectomy and the use of

anticoagulants.

Strokes can be classified into two major categories: ischemic and hemorrhagic. Ischemic strokes are those that are caused by interruption of the blood supply, while hemorrhagic strokes are the ones which result from rupture of a blood vessel or an abnormal vascular structure. About 87% of strokes are caused by ischemia, and the remainder by hemorrhage. Some hemorrhages develop inside areas of ischemia ("hemorrhagic transformation"). It is unknown how many hemorrhages actually start as ischemic stroke.

Stroke symptoms typically start suddenly, over seconds to minutes, and in most cases do not progress further. The symptoms depend on the area of the brain affected. The more extensive the area of brain affected, the more functions that are likely to be lost.

Loss of consciousness, headache, and vomiting usually occurs more often in hemorrhagic stroke than in thrombosis because of the increased intracranial pressure from the leaking blood compressing the brain.

If symptoms are maximal at onset, the cause is more likely to be a subarachnoid hemorrhage or an embolic stroke.

#### **Exercise 7. Answer the questions:**

- 1) What is the cause of a stroke?
- 2) What does the abbreviation CVA mean?
- 3) What is ischemia?
- 4) What are the manifestations of CVA?
- 5) How can the the blood supply to the brain be damaged?
- 6) What are the risk factors for stroke?
- 7) What medication can be administered in stroke?
- 8) What kind of surgery may some CVA patients undergo?
- 9) What is "hemorrhagic transformation"?
- 10) How do stroke symptoms start?
- 11) How does the onset of hemorrhagic stroke differ from that of the ischemic one?

Exercise 8. Match the following English word combinations with Russian ones:

1.	affected area of the brain	а) неспроможність рухатись
2.	disturbance in the blood supply	b) уражена зона мозку
3.	inability to move	с) розрив кровоносних судин
4.	atrial fibrillation	d) субарахноідальний крововилив
5.	prevention of recurrence	е) порушення кровопостачання
6.	previous stroke	f) підвищений
		внутрішньочерепний тиск
7.	loss of consciousness	g) втрата свідомості
8.	rupture of a blood vessel	h) миготлива аритмія
9.	increased intracranial pressure	і) попередній інсульт
10.	subarachnoid hemorrhage	ј) профілактика рецидиву

#### **Exercise 9. Match the words with their definitions:**

1. ischemic stroke	a) an abnormal and very dangerous condition in which		
	blood collects beneath the arachnoid mater, a membrane		
	that covers the brain. The accumulation of blood in the		
	subarachnoid space can lead to stroke, seizures, and other		
	complications.		
2. thrombosis	b) it is caused by interruption of the blood supply		
3. hemorrhagic	c) any of a group of drugs (as lovastatin and simvastatin)		
stroke	that inhibit the synthesis of cholesterol and promote the		
	production of LDL-binding receptors in the liver resulting		
	in a usually marked decrease in the level of LDL and a		
	modest increase in the level of HDL circulating in blood		
	plasma		
4. statins	d) it results from rupture of a blood vessel or an abnormal		
	vascular structure.		
5. subarachnoid	e) a serious condition caused when a blood clot blocks the		
hemorrhage	flow of blood in a blood vessel		

#### **Exercise 10. Put questions to the underlined words:**

- 1) Clot busting medications dissolve the blood clot that is blocking the artery.
- 2) Symptoms of a small stroke may be confused with <u>those of other conditions that cause similar symptoms.</u>
- 3) The anterior circulation of the brain that controls most motor activity, sensation, thought, speech, and emotion is supplied by the carotid arteries.
  - 4) The patient's condition improved gradually within 2 weeks of treatment.
- 5) When blood flow stops, brain cells do not receive the oxygen and glucose they require to function.
- 6) <u>Two weeks after antibiotic treatment was discontinued</u>, the patient experienced a frontal headache.
- 7) A 77-year-old woman <u>was cooking</u> in the kitchen when she collapsed onto the floor.
  - 8) He had developed hypertension over the last 10 years.
- 9) <u>Because there was occasional low-grade fever</u>, intravenous penicillin was given for 2 weeks.
- 10) On day  $\underline{4}$  of hospitalization, she developed fever (38°C), chills, and dysuria.

### **Exercise 11. Open the brackets:**

- 1) She (to lose) consciousness and (to transfer) to our hospital on the same day.
- 2) Quick action by a doctor sometimes (to reduce) the damage or (to prevent) more damages.
- 3) In both patients, brain abscess (to develop) at the stroke lesion site after they (to have) an infectious complication.
  - 4) Most strokes (to happen) suddenly and (to damage) the brain within

minutes.

- 5) If the stroke already (to happen) blood clotting drugs are not effective.
- 6) The ischemic infarction (to demonstrate) by computer assisted tomography and angiography.
- 7) After the patient (to develop) the left hemiparesis, he (to admit) to our hospital.
- 8) Because of the progressive multifocal cerebral manifestations in the patient, we (to decide) to perform a brain biopsy of the right parietal lobe ten days after admission.
- 9) As soon as a doctor (to gather) all information he (to make) a diagnosis of a suspected ischemic stroke.
- 10) Occlusion of small brain arteries very rarely (to cause) by the malignant intravascular lymphoma, which first (to describe) in 1959.

## Exercise 12. Translate into Russian paying attention to the translation of the Infinitives:

- 1. To identify the virus causing human influenza serologic tests are made.
- 2. The tumor to be removed is benign.
- 3. It is difficult to do it in such a short period of time.
- 4. Please close the window so as not to catch cold.
- 5. I had nothing to give him for his headache.
- 6. To treat advances cases of malignant tumours is very difficult.
- 7. His aim was to master English.
- 8. I stopped there in order to rest a little.

#### **Exercise 13. Translate the sentences using Infinitive:**

- 1. Щоб виписати цього хворого, ми повинні мати всі аналізи.
- 2. Лікар приписав судинорозширювальні препарати, щоб знизити тиск.
- 3. Медсестра зробила паціенту ін'екцію знеболюваного, щоб він зміг заснути.
  - 4. Молодому лікарю було важко поставити діагноз.
  - 5. Відомо, що у нього вражена значна частина мозку в результаті інсульту.
  - 6. Він не міг рухати кінцівками правої сторони два місяці тому.
- 7. Антитромбоцитарні ліки назначають, щоб запобігти повторного інсульту.
- 8. Хворий не міг говорити і формулювати мову у зв'язку з дисфункцією мозку.

## Exercise 14. Read the case and its study based upon the patient's symptoms. answer the questions below:

A 77-year-old woman was cooking in the kitchen when she collapsed onto the floor. Her daughter called an ambulance and the woman was taken to the emergency room. She had suffered a stroke, and slowly regained consciousness over the next two days. However, when she woke up, she had the following signs and symptoms paralysis of the right face and arm- loss of sensation to touch on the skin of the right face and arm; inability to answer questions but ability to understand what was said to

her; ability to write down her thoughts more easily than to speak them.

Solving the clinical problem

Based upon the patient's symptoms, which cerebral artery was blocked?

The loss of all sensation on the right face and arm, coupled with the paralysis of muscles in these regions suggests that this woman suffered damage to the lateral portions of her left frontal and parietal lobes. Specifically, damage to the face and arm regions of the left somatosensory and primary motor cortices would cause these deficits. Damage on the left side of her brain causes right-sided symptoms since the motor and sensory tracts cross the mid-line as they travel between the cerebrum and the spinal cord. The language disorder that this patient has is called Broca's (expressive) aphasia, and it may result from damage to the dominant Broca's motor speech area, a control center that sits just anterior to the face portion of the primary motor cortex in the left frontal lobe. The artery that supplies blood to these regions is the superior division of the left middle cerebral artery. Blockage of this artery by a thrombus or embolism could cause all of this patient's signs and symptoms.

- 1) Which lobe of the brain, the right or the left one, was damaged? What symptoms indicate that?
- 2) Damage to what portion of the left lobe caused the language disorder? How is the area responsible for the language function called?
  - 3) What artery was blocked?

#### Завдання для самостійної роботи студентів (СРС)

### І. Перекладіть наступні словосполучення:

- 1. неспроможність рухатись
- 2. уражена зона мозку
- 3. розрив кровоносних судин
- 4. субарахноідальний крововилив
- 5. порушення кровопостачання
- 6. підвищений внутрішньочерепний тиск
- 7. втрата свідомості
- 8. миготлива аритмія
- 9. попередній інсульт
- 10. профілактика рецидиву

## II. Дайте відповіді на наступні питання:

- 1. What is the cause of a stroke?
- 2. What are the manifestations of CVA?
- 3. What are the risk factors for stroke?
- 4. What is hemorrhagic transformation?
- 5. How does the onset of hemorrhagic stroke differ from that of the ischemic one?

### ІІІ. Розкрийте поняття: інсульт, афазія

## **Test**

<ol> <li>Stroke can be due to</li> <li>a) cerebral ischemia b) paralysis</li> <li>c) inability to see one side of the visual field</li> <li>d) dizziness e) thirst</li> </ol>		
<ul><li>2. A stroke is</li><li>a) a chronic brain disease b) a medical emergency</li><li>c) paralysis of limbs d) neoplasm e) ulcer</li></ul>		
<ul> <li>3. Strokes can be divided into two types:</li> <li>a) acute and chronic b) acute and hemorrhagic</li> <li>c) ischemic and hemorrhagic</li> <li>d) primary and secondary e) hereditary and nonhereditary</li> </ul>		
<ul> <li>4. The most common predisposed factors for stroke are</li> <li>a) hypertension, diabetes, smoking</li> <li>b) atrial fibrillation, hypotension, vomiting</li> <li>c) hemiparesis, old age, aphasia</li> <li>d) tenderness, rupture, malaise</li> <li>e) numbness, fever, constipation</li> </ul>		
5. Loss of consciousness, headache, and vomiting usually occurs more often in because of the increased intracranial pressure from the leaking blood compressing the brain.  a) cerebral thrombosis b) cerebral ischemia c) cerebral hemorrhage d) cerebral tumour e) hemiparesis		
6. A 75-year-old woman (to wash up) in the kitchen when she (to fall down) onto the floor.  a) washes up falls down b) was washing up fell down c) was washing up was falling down d) washed up had fallen down e) is washing up has fallen down		
7. The doctor asked the patient a) whether she had taken all prescribed remedies b) she took all prescribed remedies c) if she was taken all prescribed remedies d) if she takes all prescribed remedies e) whether she will take all prescribed remedies		
8. He asked a) how is the affected area of the brain called b) how was the affected area of the brain called c) how the affected area of the brain was called d) how will the affected area of the brain be called e) how the affected area of the brain had been called		

9. The language disorder may result ... damage to the dominant Broca's motor

speech area.

a) of

b) to

c) from

d) at e) in

10. Damage ... Broca's motor speech area leads to aphasia.

a) on

b) of

c) to

d) from

e) at

#### **EPILEPSY**

### **Exercise 1. Learn the following words:**

epilepsy	[e'pilepsi]	епілепсія
seizure	[si:3ə]	епілептичний напад
partial	[ 'pa:ʃ(ə)l]	частковий
cease	[si:s]	припиняти
bisynchronous	[bai ˈsiŋkrənəs]	бісинхронний
posture	[pɔsʧə]	поза, положення
unconscious	[selncal na]	непритомний
awareness	[əˈweənes]	усвідомленість
hallucination	[həlu:siˈneiʃn]	галюцінація
idiopathic	[idiə ˈpæθik]	ідіопатичний

#### **Exercise 2. Match the words with their translation:**

1. tonic-clonic	а) часткове затьмарення свідомості
2. unconscious	<ul><li>b) бісинхронічні імпульсні викиди</li></ul>
3. confusion	с) утворення рубця
4. bisynchronous spike discharges	d) фокусний
5. scarring	е) тонічно-клонічний
6. focal	f) непритомний

#### Exercise 3. Match the medical terms with their definitions:

	Ziidi did di 1,1200di did iiidaida da iiid iidii da iidiii da iidii da iidii da iidii da iidii da iidii da iidiiidi				
1.	epilepsy	a) a perception in the absence of stimuli			
2.	unconsciousness	b) a sudden involuntary contraction of a			
		muscle or a hollow organ			
3.	cyanosis	c) a transient symptom of abnormal excessive			
		or synchronous activity in the brain			
4.	seizure	d) complete or partial lack of responsiveness			
		to people or other environmental stimuli			
5.	spasm	e) a common and diverse set of chronic			
	•	neurological seizures			
6.	hallucination	f) the appearance of blue or purple coloration			
		of the skin due to the lack of oxygen			

#### **Exercise 4. Translate the following word combinations:**

Recurrent seizure, sudden onset, structural damage, partial and generalized seizures, to fall to the ground, result in cyanosis, urinary incontinence, to cease movements, state of confusion, brief spells of unconsciousness, bisynchronous spike and wave discharges, intermittent photic stimulation, clouded awareness, temporal lobe, focal lesions.

## Exercise 5. Complete the words in the following sentences by adding a prefix. Choose from the following: un-, in-, ir-, dis-.

1. An epileptic seizure is \_\_\_controlled, chaotic electrical activity in the brain. It alters consciousness and may bring on \_\_\_ voluntary movements. Epilepsy may be

the result of chemical \_\_\_\_balance but more often the cause is \_\_\_\_known.

- 2. In a grand mal epileptic seizure, the victim falls to the ground\_\_\_conscious and makes twitching movements which may last for several minutes. In a petit mal seizure, the victim may be\_\_aware of things around him for up to thirty seconds but seldom loses consciousness.
- 3. In temporal lobe epilepsy, a seizure may result in the victim having \_\_\_rational feelings of anger or fear.
  - 4. Following a stroke, many patients are left with some sort of \_\_\_\_ability.
- 5. Brain cells starved of blood are \_\_\_\_able to communicate with the parts of the body they are responsible for.

## Exercise 6. Read and translate the text: EPILEPSY

Epilepsy is a disorder of brain function characterized by recurrent seizures that give a sudden onset. Epilepsy may be the result of disturbed chemical balance but more often the cause is unknown.

The term idiopathic is used to describe epilepsy that is not associated with structural damage of the brain. Seizures may be generalized or partial. Generalized epilepsy may take the form of tonic-clonic or absence seizures. In tonic-clonic seizures the patient falls to the ground unconscious with the muscle in a state of spasm. The lack of any respiratory movement may result in cyanosis. The tonic phase is replaced by convulsive movements when the tongue may be bitten and urinary incontinence may occur.

Movements gradually cease and the patient may rouse on a state of confusion, complaining of headache, or may fall asleep. Absence seizures consist of brief spells of unconsciousness lasting for a few seconds. During which posture and balance are maintained. The electroencephalogram characteristically shows bisynchronous spike and wave discharges during the seizures and at other times. Attacks are sometimes provoked by overbreathing or intermittent photic stimulation.

In partial seizures, the nature of the seizure depends upon the location of the damage in the brain. Symptoms may include hallucinations of smell, taste, sight, and hearing, and paroxysmal disorders of memory. Throughout an attack the patient is in a state of clouded awareness and afterwards may have no recollection of the event. A number of these symptoms are due to scarring and atrophy affecting the temporal lobe.

The different forms of epilepsy can be controlled by the use of antiepileptic drugs (anticonvulsants). Surgical resection of focal lesions in the brain is appropriate in a strictly limited number of cases.

#### **Exercise 7. Answer the following questions:**

- 1. What is epilepsy characterized by?
- 2. What is the term idiopathic used for?
- 3. What types of seizures are there?
- 4. What may be observed in the tonic phase?
- 5. What does the EEG usually show?
- 6. How can seizures be provoked?

- 7. What are the symptoms in partial seizures?
- 8. How can epilepsy be controlled?

#### **Exercise 8. Translate the following word combinations:**

Повторювані епилептичі напади, мимовільні рухи, несвідомий стан, неусвідомленість того, що відбувається, структурне пошкодження мозку, генералізована і часткова епілепсія, заснути, гарячковий спазм, зберігати рівновагу, світлова стимуляція, що переривається, помутніння свідомості, осередкові пошкодження, скронева доля, протисудомні препарати, пароксизмальні порушення пам'яті.

#### **Exercise 9. Put the questions to the underlined words:**

- 1. Attacks are sometimes provoked by overbreathing.
- 2. The patient may rouse in a state of confusion.
- 3. <u>In tonic-clonic seizures</u> the patient falls to the ground unconscious.
- 4. Absence seizures often subside spontaneously in adult life.
- 5. A simple partial seizure consists of <u>convulsive movements</u> that might spread to the thumb.
  - 6. After the seizure the patient may have no recollection of the event.
  - 7. Seizures are controllable with medication in about 70% of cases.
- 8. In those whose seizures do not respond to medication, <u>surgery</u>, <u>neurostimulation or dietary changes</u> may be considered.

#### Exercise 10. Use the verbs in brackets in the appropriate tense form:

- 1. The patient stated that the onset of epilepsy (to be preceded) by the brain damage during an accident.
  - 2. This woman (to suffer from) encephalitis before epilepsy developed.
  - 3. If epilepsy (to be treated) properly, it may (to subside) gradually.
  - 4. The doctor (to prescribe) him some anticonvulsive drugs.
  - 5. This patient (to experience) seizures since his childhood.
- 6. The EEG (to take) during the attack (to show) bisynchronous spike and wave discharges.
- 7. In future about 5–10% of all people (to have) an unprovoked seizure by the age of 80.
- 8. People with epilepsy either have restrictions placed on their ability to drive or not (to permit) to drive at all.

## **Exercise 11. Translate into English:**

- 1. Відомо, що тонічно-клонічні судоми наявні у 60% пацієнтів, які страждають від епілепсії.
- 2. Приступ абсанса, що звичайно виявляється в дитячому віці, зникає з настанням дорослого віку.
- 3. Протисудомні препарати ефективно знижують, як частоту, так й тяжкість епілептичних нападів у більшості хворих.
- 4. Вважають, що найбільш розповсюдженими причинами епілепсії є пухлини мозку, судинна патологія мозку, енцефаліт і обмінні порушення.

- 5. Було встановлено, що епілепсія спадкова хвороба.
- 6. Поставивши точний діагноз і визначивши тип епілепсії, лікар почав лікування протисудомними препаратами.

	Test
1. a)	Epilepsy is a disorder of function.  memory b) movement c) brain d) cardiac
2. a)	During a seizure the patient is in the state ofshock b) collapse c) unconsciousness d) stupor
3. a)	The electroencephalogram shows during the seizures. bisynchronous spike b) wave discharges c) no special changes
4. a)	Attacks are sometimes provoked by
5. a)	A number of symptoms in partial seizures are due toscarring b) atrophy of the temporal lobe c) mental overstrain
	The tongue may be  ated b) bitten c) put out d) protruded
	ilepsy may be controlled by sodilators b) anticonvulsants c) antihistamines
-	partial seizures symptoms may include rious hallucinations b) paroxysmal disorders of memory c) nausea
	pilepsybe treated.  able to b) needn't c) must d) is allowed to

#### **EYE DISEASES**

#### **Exercise 1. Learn the new words:**

Excreise 1. Learn t		
accommodation, n	[əˈkoməˈdeiʃn]	регулювання зображення
adjustment, <i>n</i>	[ə'd3\stmant]	наведення зображення
astigmatism, <i>n</i>	[æˈstigmətizm]	астигматизм
biconcave, adj	[bai'konkeiv]	двовгнутий
biconvex, adj	[bai'koneks]	двоопуклий
blurry, adj	[ˈblɛːri]	нечіткий, розмитий
cataract, n	['kætərəkt]	катаракта
clouding, n	['klaudiŋ]	помутніння
colour blindness	['kʌlə'blaindnis]	дальтонізм
cone, n	['koun]	колбочка сітківки
converge, v	[kən'vɛ:d3]	сходитися в одну точку
cornea, n	['koniə]	рогівка
cylinder-shaped	['silində'seipt]	циліндричний
double vision	['dʌbl'viʒn]	диплопія, роздвоєння
elongation, n	[iləŋˈgeiʃn]	розтягнення
exposure, n	[iks'pouʒə]	піддавання дії
flat, adj	[flæt]	плоский
glaucoma, n	[glo:'koumə]	глаукома
halo, n	['heiləu]	ореол, сяйво
hyperopia, n	['haipə(r)'oupiə]	далекозорість
image, n	['imid3]	картинка
incidence, n	['insidens]	захворюваність
iris, n	['airis]	райдужна оболонка ока
lens, n	['lens]	кришталик
light, n	['lait]	світло
lump, n	['lʌmp]	гуля, опух
myopia, n	[mai'oupiə]	короткозорість
permit, v	[pɛ:mit]	дозволяти
refraction, n	[ri'fræksn]	заломлення
retina, n	['retina]	сітківка
sebaceous gland, n	[si'beiss]	сальна залоза
spectrum, n	['spektrəm]	спектр
strabismus, n	[strə'bizməs]	косоокість
sty, n	['stai]	ячмінь

# Exercise 2. Read and translate the following word combinations from the active vocabulary:

To form in front of the retina, elongation of the eyeball, glasses with biconcave lenses, irregular curvature of a lens, blurry image, certain colours of the spectrum, a sex-linked genetic trait, halos around lights, exposure to ultraviolet light, increase in

the intraocular pressure, a localized inflammation of a sebaceous gland, to converge together.

**Exercise 3. Complete the table:** 

VERB	NOUN	ADJECTIVE
to converge		
	elongation	
to adjust		
		blurry
	refraction	
		clouded
to relieve		
	removal	

Exercise 4. Find explanation on the right to the words on the left:

	<b>_</b>		8
1.	strabismus	a)	daltonism
2.	myopia	b)	clouding of the lens
3.	hyperopia	c)	double vision
4.	colour blindness	d)	abnormality in the position of the eye
5.	astigmatism	e)	abnormal increase in intraocular pressure
6.	cataract	f)	farsightedness
7.	glaucoma	g)	nearsightedness

Exercise 5. Read and translate the text: EYE DISEASES

Two common disorders of the eye are the myopia and hyperopia. In myopia the image forms in front of the retina. This condition is due to elongation of the eyeball or it may be caused by insufficient adjustment of a lens during accommodation. Glasses with biconcave lenses are used to focus the image on the retina. In hyperopia the image forms behind the retina and is blurred because the eyeball is too short or because the lens is too flat to permit nearby vision. This defect often happens as the lens loses elasticity with age. Glasses with biconvex lenses are used to focus the image on the retina.

Astigmatism is caused by irregular curvature of a lens or cornea. It results in a light refraction so that the rays fall on different areas of the retina, thereby producing a blurry image. Astigmatism is the inability to separate two closely placed points. The condition is corrected by using cylinder-shaped lenses.

Another visual defect is colour blindness resulting from the inability of cones to react to certain colours of the spectrum. For example, a person may be colour blind to red and green colours. In this case red and green can not be distinguished because of the lack of cones sensitive to red and green. Colour blindness is usually a sex-linked genetic trait carried by females and expressed in males.

Cataract is a clouding of the lens. For most people cataracts are a natural result of ageing. Often cataracts develop in both eyes at the same time. The symptoms vary but include a gradual blurring of vision, halos around lights, and double vision. The

very worst cataracts – where the iris appears almost entirely clouded – can cause a total loss of vision. Cataracts develop for a variety of reasons including long-term exposure to ultraviolet light, exposure to radiation, secondary effects of diseases such as diabetes, hypertension and advanced age, eye injury or trauma.

Glaucoma is an abnormal increase in the intraocular pressure of the eyeball. Loss of vision develops gradually and people may not realize they have it. On reaching an advanced age glaucoma is extremely difficult and expensive to treat. The key to reducing the incidence of glaucoma is early diagnosis.

A sty is a localized inflammation of a sebaceous gland of the eyelid. This common infection results from blocked glands within the eyelid. When the gland is blocked, the sebum (секрет сальных желез) produced by the gland occasionally backs up and extrudes through the wall of the gland, forming a lump which can be red, painful, and nodular. Frequently bacteria can infect the blocked gland causing increased inflammation, pain, and redness of the eye, and even redness of the surrounding eyelid and cheek tissue. The lump frequently goes away when the blockage of the gland opening is relieved. Furthermore, the infection goes away the pus is drained from the sty.

Persons having strabismus (cross-eyes) have a condition in which eyes do not converge together and a person sees two images instead of one.

#### **Exercise 6. Answer the following questions according to the text:**

- 1. What are the common disorders of the eye?
- 2. What causes cataract?
- 3. How is it possible to prevent cataract?
- 4. What disease results from increased intraocular pressure?
- 5. How are myopia and hyperopia corrected?
- 6. What is a sty?
- 7. What is strabismus?

#### **Exercise 7. Define if the following satements are true or false:**

- 1. Astigmatism results from inability of cones to react to certain colours.
- 2. There is only one cause of cataract.
- 3. In myopia glasses with biconcave lenses are used.
- 4. Cataracts can develop in both eyes.
- 5. A sty is a localized inflammation of a sebaceous gland of the eyelid.
- 6. Colour blindness is usually a sex-linked genetic trait carried by males and expressed in females.
  - 7. It is very difficult and expensive to treat glaucoma.
  - 8. Persons with strabismus see two images instead of one.
- 9. The symptoms of cataract include a gradual blurring of vision, halos around lights, and double vision.

### Exercise 8. Translate the following word combinations into English:

Розтягнення очного яблука, недостатнє наведення чіткості зображення, формування зображення за сітківкою, втрачати еластичність кришталику з віком, неправильна кривизна рогівки, відбивання світла, дальтонізм, поступова

нечіткість зору, помутніння райдужної оболонки ока, захворюваність глаукомою, запалення сальної залози, почервоніння повіки, випускати гній з ячменю, косоокість.

## Exercise 9. Choose the proper preposition and complete the text. Translate the text into Ukrainian:

The primary mode (of\ with\ from) treatment for a sty is application (by\ at\ of) warm compresses. Incision and drainage is performed if resolution does not begin (in\ on\ to) the next 48 hours after warm compresses are started.

As a part of self-care at home patients may cleanse the affected eyelid (from\ in\ with) water. Cleansing must be done gently and while eyes are closed to prevent eye injuries.

Patients are highly advised not to lance the sty as it may result (in\ by\ at) a serious infection.

Medical treatment can also be provided (by\ with\ in) a doctor and it is aimed (at\ by\ to) relieving symptoms. Antibiotic are normally given (to\ on\ in) patients with multiple sties. Antibiotic ointments can also be administered (on\ from\ in) sty treatment.

#### **Exercise 10. Translate sentences into English:**

- 1. Порушення зору може спостерігатися в будь-якому віці. Велику роль в погіршенні зору відіграють спадковий чинник, перенесені інфекційні захворювання, неправильний режим читання.
- 2. Ячмінь гостре гнійне запалення сальної залози біля кореня вій. Він виникає внаслідок потрапляння інфекції в залозу. На краю повіки з часом зявляються біль, почервоніння і набряк повіки.
- 3. Катарактою називається помутніння кришталика окаю Причинами можуть бути пошкодження ока, хвороби (діабет), піддавання впливу ультрафіолетових променів.
- 4. Глаукома це підвищений тиск у середині ока. Глаукома призводить до повної або часткової сліпоти.

#### Exercise 11. Put questions to the underlined words:

- 1. Many people with diabetes notice that their vision becomes blurry.
- 2. Eyes receive light from <u>the outside</u> and form the image on the nervous cells of the retina.
  - 3. Lens is tightly attached to its place by <u>a ligament</u>.
- 4. Additional structures of the eye include <u>eyebrows</u>, <u>eye lashes</u>, <u>conjunctiva</u> and the lacrimal apparatus.
  - 5. Eyebrows and eyelashes protect eyes from <u>foreign matters</u>.
  - 6. Human eye differs 10 million colours but it does not perceive ultraviolet.

### Exercise 12. Open the brackets and use verbs in the correct tense and form:

1. Color blindness, or color vision deficiency, (to be) the inability or decreased ability to see color, or perceive color differences, under normal lighting conditions.

- 2. Color blindness (affect) a significant percentage of the population.
- 3. Color blindness also (can to produce) by physical or chemical damage to the eye, the optic nerve, or parts of the brain.
  - 4. Color blindness usually (to classify) as a mild disability.
  - 5. Color vision deficiencies (can to classify) as acquired or inherited.
- 6. About 8 percent of males, but only 0.5 percent of females, (to be) color blind.
  - 7. Causes of color blindness (to include) brain or retinal damage.
- 8. The different kinds of inherited color blindness (to result from) partial or complete loss of function of one or more of the different cone systems.

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення:

- 1. захворюваність глаукомою
- 2. запалення сальної залози
- 3. помутніння райдужної оболонки ока
- 4. формування зображення за сітківкою
- почервоніння повіки
- 6. косоокість
- 7. ячмінь
- 8. втрачати еластичність кришталику з віком
- 9. поступова нечіткість зору
- 10. відбивати світло

#### II. Дайте відповіді на наступні питання:

- 1. What are the common disorders of the eye?
- 2. What causes cataract?
- 3. How are myopia and hyperopia corrected?
- 4. What is a sty?
- 5. What is strabismus?

### ІІІ. Розкрийте поняття: хвороби очей, катарката

		T	'est	
1. In myop	ia the image	forms in fron	nt of the	•••••
a) retina	b)cornea	c) eyeball	d) lens	e) eyelid
a) eavy alc	ohol consum	ption	natural resu b) smokir	lt of g c) stress
d) ageing	e) ot	pesity		

- 3. Which of the following statements is false?
- A. Astigmatism results from inability of cones to react to certain colors.
- B. There are several causes of cataract.
- C. In myopia glasses with biconcave lenses are used.
- D. Cataracts can develop in both eyes.

E. A sty is a localized inflammation of a sebaceous gland of the eyelid.
4 is an abnormal increase in the intraocular pressure of the eyeball. a) astigmatism b) sty c) hyperopia d) strabismus d) glaucoma
5. People with color blindness may for example be color blind red and green. a) for b) with c) to d) at e) on
6. What is an inflamed swelling on the edge of an eyelid caused by bacterial infection of the gland at the base of an eyelash?  a) lump b) pus c) strabismus d) sty e) myopia
7. Which of the following statements is false?  A. Cataracts are treated surgically.  B. Color blindness is usually a sex-linked genetic trait carried by males and expressed in females.  C. It is very difficult and expensive to treat glaucoma.  D. Persons with strabismus see two images instead of one.  E. The symptoms of cataract include a gradual blurring of vision, halos around lights, and double vision.
8. Loss of vision in glaucoma develops and people may not realize they have it. a) rapidly b) steadily c) promptly d) gradually e) quickly
9. In a sty the lump frequently goes away when the blockage of the gland opening
10. What does the word "converge" mean?  Persons having strabismus have a condition in which the eyes do not converge together.
a) mix b) correspond c) concentrate d) fit e) focus

#### EAR DISEASES

#### **Exercise 1. Topical vocabulary:**

auricle, <i>n</i>	[ˈɔːrɪkəl]	вушна раковина
cochlea, n	[ˈkɒklɪə]	передня частина вушного лабиринту
deafness, n	['defnəs]	глухота
eardrum, n	[ˈɪədrʌm]	барабанна перетинка
equilibrium, n	[ˌiːkwɪˈlɪbrɪəm]	рівновага
eustachian tube, n	[juːˈsteɪʃ(ə)n] [tjuːb]	євстахієва труба
hearing loss, n	[ˈhɪərɪŋ]	втрата слуху
Meniere disease		хвороба Мін'єра
myringotomy, n	[məˈriŋgətəmi]	мірінготомія (розсічення двох задніх квадрантів барабанної перетинки на всьому їх протязі )
ossicle, n	['psik(ə)l ]	слухова кістка
otoscope, n	[ˈəʊtəskəʊp]	отоскоп
perforation, $n$	[ˌpɜːfəˈreɪʃən]	прорив
pinna, n	[ˈpɪnə]	вушна раковина
pus, n	[pas]	гній
tinnitus, n	[ˈtɪnɪtəs]	шум у вухах
tympanic membrane, <i>n</i>	[ˌtɪmˈpænɪk]	барабанна перетинка
vertigo, n	[ˈvɜːtɪgəʊ]	запаморочення

#### **Exercise 2. Read and remember interesting facts about ears:**

- 1. Your ear drum is less than 17.5 mm in diameter
- 2. Your ear never stops working, even when you're asleep. The ear continues to hear sounds, but your brain just ignores incoming sounds.
- 3. Your ear does more than just let you hear—it also gives you a sense of balance. Maybe you've noticed feeling dizzy if you've had an ear infection.
- 4. The three bones in your ear are the smallest bones in your body, and all three could fit together on a penny.
- 5. The inner ear is about the size of a pencil eraser, but it contains more than 20,000 hairs.
- 6. Your sense of hearing is dependent upon tiny hairs deep inside your ear. If you lose these hairs, you lose your hearing.
- 7. Not all living creatures hear with ears. Snakes use jawbones, fish respond to pressure changes, and male mosquitoes

- 8. use antennae.
- 9. Your hearing can be damaged permanently even after a single incident of
- 10. exposure to extremely loud noise (shotgun blast, explosion, etc.).
- 11. You do not need to clean wax out of your ears unless you have an abnormal condition. Ears push excess wax out as needed.

#### **Exercise 3. Translate the word combinations:**

Hearing loss, the semicircular canals and the cochlea, inflammation of the ear, to drains fluid, hearing and equilibrium, the tympanic membrane, to be made of cartilage, Meniere disease, nervous pathways, medium and loud sounds, otitis media, motion sickness, a fungus or bacterium, perforation of the eardrum, otitis externa, pronounced tinnitus, "swimmer's ear", accumulation of pus, to ventilate the middle ear cavity, malfunction or obstruction of the eustachian tube, nausea and vertigo.

#### Exercise 4. Read and translate the text: EAR DISEASES

Structure of the Ear

The human ear is one of the most remarkable parts of the human body, not only because of the beauty and unlikelihood of its structure, but also because of its remarkable sensitivity to sounds. The ear has the receptors for both hearing and equilibrium. From an anatomical point of view, the ear is conventionally and conveniently divided into three parts: the outer, the middle and the inner ears.

The outer ear is called the auricle (or pinna) and is made of cartilage covered by skin. Sound moves through the pinna into the external auditory canal, a short tube that ends at the eardrum (tympanic membrane). Sound causes the eardrum and its tiny attached bones (ossicles) in the middle portion of the ear to vibrate, and the vibrations are conducted to the nearby cochlea. The spiral-shaped cochlea is part of the inner ear; it transforms sound into nerve impulses that travel to the brain. The fluid-filled semicircular canals (labyrinth) attach to the cochlea and nerves in the inner ear. They send information on balance and head position to the brain. The eustachian (auditory) tube drains fluid from the middle ear into the throat (pharynx) behind the nose.

**Ear Conditions** 

Pain in the ear (earache) can have many causes. Some of these are serious, some are not serious.

**Hearing Loss** 

Hearing impairment may result from disease, injury, or developmental problems that affect the ear itself or any nervous pathways concerned with the sense of hearing. Heredity, toxins, exposure to loud noises, and the aging process are possible causes for hearing loss. It may range from inability to hear certain frequencies of sound to a complete loss of hearing (deafness). People with extreme hearing loss that originates in the inner ear may benefit from a cochlear implant. This prosthesis stimulates the cochlear nerve and may allow the recipient to hear medium to loud sounds.

Otitis is any inflammation of the ear. Otitis media refers to an infection that leads to the accumulation of fluid in the middle ear cavity. One cause is malfunction or obstruction of the eustachian tube, such as by allergy, enlarged adenoids, injury, or

congenital abnormalities. Another cause is infection that spreads to the middle ear, most commonly from the upper respiratory tract. Continued infection may lead to accumulation of pus and perforation of the eardrum. Otitis media usually affects children under 5 years of age and may result in hearing loss. If untreated, the infection may spread to other regions of the ear and head. Treatment is with antibiotics. A tube also may be placed in the tympanic membrane to ventilate the middle ear cavity, a procedure called a myringotomy.

Otitis externa is inflammation of the external auditory canal. Infections in this region may be caused by a fungus or bacterium and are most common among those living in hot climates and among swimmers, so it is called "swimmer's ear."

Meniere Disease is a disorder that affects the inner ear. It seems to involve the production and circulation of the fluid that fills the inner ear, but the cause is unknown. The symptoms are vertigo (dizziness), hearing loss, pronounced tinnitus (ringing in the ears), and feeling of pressure in the ear. The course of the disease is uneven, and symptoms may become less severe with time. Meniere disease is treated with drugs to control nausea and dizziness, such as those used to treat motion sickness. In severe cases, the inner ear or part of the eighth cranial nerve may be destroyed surgically.

### **Exercise 5. Answer the following questions:**

- 1. What is the most characteristic feature of the ear?
- 2. What are the main parts of the ear?
- 3. What is the role of the outer ear?
- 4. What processes occur in the middle ear?
- 5. What diseases of the ear are there?
- 6. What may cause hearing deafness?
- 7. What kind of disease is otitis?
- 8. What are the symptoms of Meniere disease?

#### **Exercise 6. Match the terms with their definitions:**

	V110 001 1112 77 1011 011011 0F011111010125
1. equilibrium	a) the portion of the inner ear that is concerned with the
2. hearing	sense of equilibrium;
3. cochlea	b) the capacity to hear;
4. otitis	c) the tube that connects the middle ear with the
	nasopharynx and serves to equalize pressure between the
5.vestibular	outer and middle ear;
apparatus	d) the smallest bones of the middle ear;
6. eustachian tube	e) the sense of balance;
7. ossicles	f) the coiled portion of the inner ear that contains the
8. pinna	receptors for hearing;
1	g) the projecting part of the outer ear; auricle;
	h) any inflammation of the ear.

#### **Exercise 7. Translate the word combinations:**

Запалення зовнішнього слухового каналу, провітрювати порожнини середнього вуха, процес старіння, контролювати нудоту та запаморочення, вплив гучних звуків, дзвін у вухах, черепно-мозковий нерв, запалення вуха, помітна

чутливість до звуків, перетворювати звук в нервові імпульси, барабанна перетинка, збільшені аденоїди, нервові шляхи, слух та рівновага, вушний біль, спиралевидний равлик.

## Exercise 8. Choose the terms from the text to match the following definitions:

1. \_\_\_\_\_\_\_\_ an instrument for examining the ear.
2. \_\_\_\_\_\_\_ a sensation of noises, such as ringing or tinkling, in the ear.
3. \_\_\_\_\_\_ an illusion of movement, caused by disturbances in the vestibular apparatus; often used to mean dizziness or lightheadedness.
4. \_\_\_\_\_\_ inflammation of the external auditory canal; swimmer's ear.
5. \_\_\_\_\_\_ a disease associated with increased fluid pressure in the inner ear and characterized by hearing loss, vertigo, and tinnitus.
6. \_\_\_\_\_\_ inflammation of the middle ear with accumulation of watery (serous) or mucoid fluid.
7. \_\_\_\_\_\_ surgical incision of the tympanic membrane; performed to drain the middle ear cavity or to insert a tube into the tympanic membrane for drainage.

Exercise 9. Complete this description using the words and phrases below:

pinna	inner ear
ear canal	oval window
eardrum	cochlea
sound waves	hair cells
middle ear	auditory nerve

How the Ear Works

Sounds from the outside world are picked up by the outer ear, which is made up of the ... (1) and the ear canal. As the sound waves enter the ear, the ... (2) serves to increase the loudness of those pitches that make it easier to understand speech. At the same time the ear canal protects another important part of the ear: the ... (3) - a flexible, circular membrane which vibrates when touched by ... (4).

The sound vibrations continue their journey into the ... (5), which contains three tiny bones called the ossicles, which are also known as the hammer, anvil and stirrup. These bones form the bridge from the eardrum into the ... (6). They increase and amplify the sound vibrations even more, before safely transmitting them on to the inner ear via the ... (7).

The inner ear, or ... (8), resembles the circular shell of a snail, and houses a system of tubes which are filled with a watery fluid. As the sound waves pass through the oval window the fluid begins to move, setting tiny ... (9) in motion. In turn, these hairs transform the vibrations into electrical impulses that travel along the ... (10) to the brain itself.

Exactly how the brain actually translates these nerve impulses remains a mystery.

## Exercise 10. Match each of these symptoms with one or more of the ear conditions a-d below:

	EDITION OF THE POPULATION OF T	
1.	otitis media	a) deafness
2.	Meniere disease	b) vertigo c) tinnitus
3.	otitis externa	c) tinnitus d) fluid in the middle ear
3.	outils externa	e) pressure in the ear perforation of the
4.	hearing loss	eardrum
		f) accumulation of pus
		g) inability to hear certain frequencies of
		sounds
		h) inflamed auditory canal

## Exercise 11. Put the special questions to the underlined words and words combinations:

- 1. An otoscope is a device to look into the ear canal to see the drum.
- 2. An audiologist examines <u>a person's hearing</u> in each ear, using sounds of varying volume and frequency.
- 3. Audiogram has just been made and compared with that of an individual with normal hearing.
- 4. ACT scanner uses X-rays and a computer to create images of the ears and surrounding structures.
- 5. <u>Using radio waves in a magnetic field</u>, a scanner creates high-resolution images of the ears and surrounding structures.
  - 6. The ear changes sound into electrical signals, so the brain can interpret it.
  - 7. Otosclerosis <u>mainly</u> affects the tiny stapes bone.
  - 8. People with extreme hearing loss may benefit from a cochlear implant.

### Exercise 12. Complete the text using one word in each gap:

Do you ever wish that your neighbours (turned / will turn / had turned) down their music? Perhaps you are trying to sleep and you wish that the people next-door (do / were / will be) not holding an all-night barbecue party in their garden. Or do you feel it is high (time / place / site) you moved to an uninhabited island? Don't worry - you are just another victim of noise pollution. Of course most people would prefer if cars (make / made / will make) no noise at all, neighbours (was / were / are) as quite as mice, and nobody (drive / drove will have drive) about the streets in cars with open windows and high-powered sound systems. You may even wish you (stop / stopped / have stopped) children from playing in the street, or planes from passing overhead. But in the end, if I (was / am / will be) you I (would / will / will have) just get used to it. Close the windows, buy some earplugs, laugh and turn up your own stereo. Just act (as / though / that) if the noise (is / was / will be) simply not there! Who knows, perhaps it will go away.

### Завдання для самостійної роботи студентів (СРС)

## І. Перекладіть наступні словосполучення:

1. барабанна перетинка

2. запалення зовнішнього слухового каналу
3. вплив гучних звуків
4. перетворювати звук в нервові імпульси
5. слух та рівновага
6. вушний біль
7. черепно-мозковий нерв
8. дзвін у вухах
9. порожнини середнього вуха
10. спиралевидний равлик
<ul> <li>II. Дайте відповіді на наступні питання:</li> <li>1. What is the most characteristic feature of the ear?</li> <li>2. What are the main parts of the ear?</li> <li>3. What is the role of the outer ear?</li> <li>4. What processes occur in the middle ear?</li> <li>5. What diseases of the ear are there?</li> </ul>
III. Розкрийте поняття: втрата слуха, отит, хвороба Миньєра
Test
1. From an anatomical point of view the ear is conveniently divided into .
parts.
a) one b) two c) three d) four e) five
2. The outer ear is called and is made of cartilage covered by skin. a) the auricle b) the ossicles c) the cochlea d) the pinna e) the eardrum
3. Sound causes the eardrum and its tiny attached bones in the middle portion of
the ear to
a) move b) decelerate c) freeze d) vibrate e) vacillate
<ul><li>4. The eustachian tube fluid from the middle ear into the throat.</li><li>a) eliminates b) discharges c) excretes d) removes e) drain</li></ul>
5. Otitis media refers to an infection that leads to in the middle ear cavity.  a) the accumulation of pus b) the accumulation of fluid c) the formation of ulcers d) the formation of lesions e) the accumulation of mucus
6. One cause of otitis media is malfunction or obstruction of a) the semicircular canals b) the eustachian tube c) the cochlea d) the auricle) the inner ear
7. Otitis externa is inflammation of a) the semicircular canals b) the eustachian tube c) the cochlea d) the inner ear e) the external auditory canal
8 Otitis externa is most common among those living in

- a) cold climates b) hot climates c) temperate climates d) insanitary zone e) mountainous regions
  - 9. Meniere Disease is a disorder that affects ....
- a) the outer ear b) the middle ear c) the inner ear d) the eardrum e) eustachian tube
  - 10. In severe cases, the inner ear or part of the eighth cranial nerve may be ....
  - a) perforated b) destroyed c) exscinded d) replaced e) cured

#### **SKIN DISEASES**

#### **Exercise 1. Topic vocabulary:**

acne, n	[ˈæknɪ]	прищ; запалення сальної залози
blister, n	['blistə]	пухир
comedones, n	['kəmidəu]	чорний вугор
crack, n	[ˈkræk]	тріщина
crust, n	['krst]	кірка
eczema, n	['eksim]	екзема
herpes, n	['h :piz]	лишай
hives		кропив'янка
itch, n	['itʃ]	свербіж
nodule, n	['nɔdju:l]	вузлик
pox, n	['poks]	віспа
psoriasis, n	[sə' raiəsis]	псоріаз, лускатий лишай
pustule, <i>n</i>	['pʌstju:l]	прищ, пустула
scabies, n	['skeibI:z]	короста (чесотка)
rosacea, n	[reʊˈ zeiʃə]	рожеві вугри
scale, n	['skeil]	луска
scar, n	[ˈskɑː]	шрам
scratch, n	[ˈskrætʃ]	подряпина
spot, n	[sppt]	прищик
vesicle, n	['vesikl]	пухирець

# Exercise 2. Build adjectives from the following words using suffixes: -ory, -ic, -y, -ous, -ive, -al:

Inflammation, irritation, allergy, cure, itch, blister, poison, environment, scar, pathogen, fat, water, bacteria, silver.

## Exercise 3. Read and translate the following word combinations into Ukrainian:

Vesicles filled with transparent fluid or pus; nodules elevated above the skin; skin neoplasms; inflammation of the skin; to result from; to result in; exposure to chemicals; metabolic disorders; to be caused by allergies and irritants; increased body sensitivity; skin diseases and their manifestations; the upper layer of the skin; pusfilled spots; tocause scarring; parasitic insects, bacteria or pathogenic fungi; birthmarks, warts, and tumors; poxvirus; herpes simplex virus; the ability to invade or spread to other parts; human papillomavirus

Exercise 4. Match the following terms with their definitions:

LACICISC T. I	Exercise 4. Match the following terms with their definitions.	
1. scabies	a) a benign tumour derived from epithelial tissue and forming a	
	rounded or lobulated mass	
2. eczema	b) a chronic skin disease common in adolescence, involving	
	inflammation of the sebaceous glands and characterized by	
	pustules on the face, neck, and upper trunk	

3. herpes	c) a black-tipped plug of fatty matter clogging a pore of the skin,		
	especially the duct of a sebaceous gland		
4. acne	d) a skin inflammation with lesions that scale, crust, or ooze a		
	serous fluid, often accompanied by intense itching or burning		
5. comedones	e) any of several inflammatory diseases of the skin, especially		
(blackheads)	herpes simplex, characterized by the formation of small watery		
	blisters		
6. papilloma	f) a contagious skin infection caused by the mite		
	Sarcoptesscabiei, characterized by intense itching, inflammation,		
	and the formation of vesicles and pustules		
7. psoriasis	g) a skin disease characterized by the formation of reddish spots		
	and patches covered with silvery scales: tends to run in families		
8. rosacea	h) a chronic inflammatory disease causing the skin of the face to		
	become abnormally flushed and sometimes pustular(adj.)		

Exercise 5. Read the text and be ready to discuss it: SKIN DISEASES

Skin disease is a human disease of varying etiologies characterized by pathological changes in the skin, nails and hair and in the visible mucous membranes. They may be manifested by spots, vesicles filled with transparent fluid or pus (pustules), nodules elevated above the skin, scratches, ulcers, and cracks. Many skin diseases are accompanied by itching, burning, redness, swelling and pain. Such skin problems, such as acnes, can affect your appearance. Our skin may also develop several kinds of cancers.

Dermatology is the branch of medicine that studies skin diseases. They may include skin infections and skin neoplasms. Infection of the skin is distinguished from dermatitis, which is inflammation of the skin, but a skin infection can result in skin inflammation. Inflammatory skin diseases result from direct exposure to chemicals, mechanical factors, radiation, or extremes of temperature. Skin diseases may be caused by allergies, irritants, metabolic disorders and immune system problems. Some skin diseases are manifestations of increased body sensitivity to various stimuli, including drugs and certain plants.

The term "dermatitis" (or eczema) is used to describe changes in the upper layer of the skin that include redness, itching, blistering, crusting, scaling, thickening and sometimes pigmentation. The cause of dermatitis is unclear. One possibility is a dysfunctional interplay between the immune system and skin. Most cases of dermatitis develop in people with sensitive skin and can be prevented simply by avoiding the irritant.

One of the most common skin diseases is acne. It is characterized by comedones (blackheads and whiteheads) and pus-filled spots (pustules). It usually starts at puberty and varies in severity from a few spots on the face, back and chest, which most adolescents will have at some time, to a more serious problem that may cause scarring. At present there is no cure for acne, although the available treatments can be very effective in preventing the formation of new spots and scarring.

Such skin diseaseas scabies may be caused by parasitic insects, bacteria or

pathogenic fungi. Viral skin infections are most often caused by one of three groups of viruses: poxvirus, human papillomavirus, and herpes simplex virus.

Treatment of scabies depends on the cause of the infection and severity. Some types of viral skin infections may not require treatment. Bacterial infections are often treated with medications such as antibiotics. Medication is often administered directly on to the skin.

Neoplasms such as birthmarks, warts, and tumors may develop on the skin. Skin cancers are due to the development of abnormal cells that have the ability to invade or spread to other parts of the body. Melanomas are the most aggressive. The exposure to ultraviolet radiation from the sun increases the risk of all three main types of skin cancer.

#### **Exercise 6. Answer the following questions:**

- 1. In what cases may the most common skin diseases occur?
- 2. How may skin diseases manifested?
- 3. What are many skin diseases accompanied by?
- 4. What diseases may affect the appearance?
- 5. What science studies skin diseases?
- 6. What does the inflammation of the skin result from?
- 7. What are the main manifestations of dermatitis?
- 8. What is the causative agent of scabies?
- 9. What infections may be treated with antibiotics?
- 10. What may skin cancers be due to?

#### **Exercise 7. Insert the prepositions:**

**Acne** consists ... spots and painful bumps on the skin. It's most noticeable ... the face, but can also appear ... the back, shoulders and buttocks. Severe acne can cause scarring. Acne usually starts ... puberty, but it affects adults too. Most teenagers get some form of acne.

**Cold sores** are small blister-like spots that appear ....or around the outside ... the mouth. Cold sores are caused ... a virus, known as herpes simplex type 1 (HSV-1). The virus can remain dormant (inactive) in some people, meaning that cold sores may never appear.

**Nappy rash** is a very common skin condition that happens to around one third ... nappy wearing babies. It's caused when the skin comes into contact .... urine and faeces (poo) in the nappy. Mild cases are usually painless but severe nappy rash can cause discomfort and distress to babies.

**Hives** (also known as urticaria), is a skin rash that can be triggered ... a variety of things including allergic reactions, medicines and heat. The rash is caused when the body produces a substance called histamine, which is a protein used to fight off viruses and bacteria.

The common symptoms include a raised, rough red rash, with the bumps often looking more like normal skin colour that is often quite itchy. The raised areas ... skin are known as wheals, which often fade after a few hours but can sometimes reappear elsewhere ... the body.

**Psoriasis** is a long-term skin condition that can also affect joints. Although the cause of psoriasis is unknown, genes may play a part. People ...psoriasis are... slightly higher risk of developing diabetes and cardiovascular disease. Mild psoriasis can be treated ... moisturisers as well as other products applied ...the skin. The most common symptoms are dry, raised, red patches of skin (plaques) covered.... silvery scales. The patches usually appear ... the knees, elbow and scalp, but they can appear anywhere ...the body.

#### **Exercise 8. Translate into English using active vocabulary:**

Хвороба шкіри; етіологія хвороби; патологічні зміни на шкірі; прозора рідина; супровджуватися сверблячкою; шкодити здоров'ю; зовнішній вигляд; новоутворення шкіри; запалення шкіри; піддаватися дії хімічних речовин; порушення обміну речовин; механічні фактори; прояви хвороби; чутливість до подразників; верхні шари шкіри; взаємодія між імунною системою та шкірою; уникати дії подразників; розвиватися у людей; статева зрілість; підлітки; пустули, заповнені гноєм; запалення сальної залози; запобігати утворення шрамів (рубців); віруси групи віспи; чорний вугор на лиці(комедон); герпес(лишай); родимка та бородавка

#### **Exercise 9. Insert missing words from the table:**

exposure, moisture, acid, scratching, oral, irritants, itching, relief

Self-care at home

- 1. Immediately after ... to a known allergen or irritant wash with soap and cool water to remove most of the substance.
- 2. Weak ... solutions (lemon juice, vinegar) can be used to counterpart the effects of dermatitis contracted by exposure to basic ....
- 3. If blistering develops, cold moist compresses applied for 30 minutes 3 times a day an offer ....
  - 4. Calamine lotion and cool colloidal oatmeal baths may relieve ....
  - 5. ... antihistamines can also relieve itching.
  - 6. Avoid ..., as this can cause secondary infections.
- 7. A barrier cream such as those containing zinc oxide may help to protect the skin and retain....

## Exercise 10.Read and translate the text. Put questions to the underlined words:

<u>Rosacea</u> is a common disorder that mainly affects <u>skin</u> <u>on the face</u>. It causes <u>redness on the nose, chin, cheeks, and forehead</u>. <u>Over time</u>, the redness can become more intense, taking on a ruddy appearance. <u>Blood vessels</u> may become visible.

In some cases, <u>rosacea</u> appears on the chest, back, or neck. It can affect <u>the eyes</u>, causing them to feel irritated and to appear bloodshot (inflamed) or watery. <u>People</u> with rosacea can also develop red solid bumps and pus-filled pimples (warts). The disorder can cause the nose to take on a bulbous (onion), swollen appearance called rhinophyma.

The cause of rosacea is not known; however, different theories exist. One theory is that rosacea may be a component of a more generalized disorder of the <u>blood</u>

vessels. Other theories suggest that the condition is caused by <u>microscopic skin mites</u>, <u>fungus</u>, <u>psychological factors</u>, <u>or a malfunction of the connective tissue under the skin</u>. Although no one knows for sure what causes rosacea, some circumstances and conditions can trigger it.

Rosacea affects an estimated <u>14 million</u> Americans -- most of them don't know they have it.

<u>People who have fair skin and who tend to blush (to become red in face)</u> easily may be at a higher risk for the disorder. <u>Rosacea</u> appears more often among women, but men tend to have the more severe symptoms. A possible reason for this could be that men generally delay medical treatment until rosacea becomes advanced.

While there is no cure for rosacea, medical therapy is available to <u>control or reverse the signs and symptoms.</u> If you suspect that you have rosacea, consult your doctor.

Rosacea's appearance can vary <u>greatly</u> from one individual to another. Most of the time, not all of the potential signs and symptoms appear. Rosacea always includes at least <u>one of the primary signs listed below</u>. Various secondary signs and symptoms may also develop.

Primary signs of rosacea include flushing, persistent redness, bumps and pimples, visible blood vessels.

### Exercise 11. Open the brackets and translate sentences into Ukrainian:

- 1. Contact dermatitis typically (to cause) the skin to develop a pink or red rash.
- 2. Skin (to play) a key role in protecting the body against invasion of pathogens.
- 3. Different types of dermatitis (to base) on the factor that triggers the skin reaction.
  - 4. The epidermis (to contain) no blood vessels.
- 5. Acne easily (to recognize) by the appearance of the spots and by their distribution on the face, neck, chest or back.
  - 6. There (to be) no cure for rosacea.
  - 7. Such skin changes (to know) as an irritant contact dermatitis.
  - 8. The severity of psoriasis (to vary) with time and from person to person.
- 9. Proteins in fruit and vegetables (can, cause) an immediate allergic reaction leading to itchy skin swellings known as hives.
  - 10. Acne (to remain) largely a curse of adolescence.

#### **Exercise 12.Translate the sentences into English:**

- 1. Дерматологія-це розділ медицини, який вивчає будову шкіри, волосся та нігтів, їх розвиток, функції, а також захворювання.
- 2. Зміни шкіри часто мають важливе значення для діагностики внутріщніх та інфекційних захворювань.
- 3. Дерматит- це гостре запалення щкіри, яке виникає під впливом різних факторів (хімічних, фізичних, термічних, медикаментозних, тощо).
- 4. Дерматит часто визивають кислоти, фарби, органічні розчинники, олії. Нерідко причиною дерматиту  $\epsilon$  антибіотики, новокаін.
  - 5. Процес супроводжується почервонінням, набряком, свербіжем, печією,

іноді болем.

- 6. Механізми, що беруть участь у патологічному процесі при атопічному дерматиті, різноманітні.
- 7. Зовнішніми факторами, що провокують початок захворювання,  $\epsilon$  : харчові продукти, зовнішні подразники фізичного характеру, тваринного та рослинного походження, стресові фактори, метереологічні фактори.
  - 8. У тяжких випадках можлива поява пухирців, іноді великих.

## Exercise 13. Arrange the following sentences in a correct order to describe the following term «хвороби шкіри»:

- 1. Many skin diseases are accompanied by itching, burning, redness, swelling and pain.
  - 2. Treatment of skin diseases depends on the cause and severity.
- 3. Skin diseases may be caused by allergies, irritants, metabolic disorders and immune system problems.
- 4. Skin disease is a human disease of varying etiologies characterized by pathological changes in the skin, nails and hair and in the visible mucous membranes.
  - 5.Dermatology is the branch of medicine that studies skin diseases.

#### Завдання для самостійної роботи студентів (СРС)

#### І. Перекладіть наступні словосполучення

- 1. патологічні зміни на шкірі;
- 2. супроводжуватися сверблячкою та почервонінням;
- 3. гостре запалення шкіри;
- 4. чутливість до подразників;
- 5. взаємодія між імунною системою та шкірою;
- 6. уникати дії подразників;
- 7. пустули, заповнені гноєм;
- 8. запалення сальної залози;
- 9. запобігати утворення шрамів (рубців);
- 10. родимка та бородавка

### II. Дайте відповідь на наступні питання:

- 1. In what cases may the most common skin diseases occur?
- 2. What are many skin diseases accompanied by?
- 3. What diseases may affect the appearance?
- 4. What are the main manifestations of dermatitis?
- 5. What may skin cancers be due to?

### **III. Розкрийте поняття:** хвороби шкіри

#### **Test**

1	disease	is	a human	disease	of	varying	etiologies	characterized	by
pathological c	hanges in	the .	, nails ar	nd hair ar	ıd in	the visib	le mucous	membranes.	
a	) skin		b)eye	c)lung		(	d)renal	e) panci	reas

<ul> <li>2. Such skin problems, such as acnes, can affect your</li> <li>a) activity b) consciousness c) sleeplessness</li> <li>d) appearance e) reathlessness</li> </ul>
<ul><li>3. Dermatology is the branch of medicine that skin diseases.</li><li>a) studying b) study c) to study d) studied e) to be studied</li></ul>
<ul> <li>4. Inflammatory skin diseases direct exposure to chemicals, mechanical factors, radiation, or extremes of temperature.</li> <li>a) result in b) result on c) result from d) result out e) result without</li> </ul>
5. Skin diseases may be caused by allergies, irritants, metabolic disorders and problems.  a) reproductive system b) immune system c) circulatory system
d) muscular system e) skeletal system
<ul> <li>6. Some skin diseases are of increased body sensitivity to various stimuli, including drugs and certain plants.</li> <li>a) manipulations b) considerations c) circumstances</li> <li>d) proliferations e) manifestations</li> </ul>
7. The termis used to describe changes in the upper layer of the skin that include redness, itching, blistering, crusting, scaling, thickening and sometimes pigmentation.  a) gastritis b) dermatitis c) stomatitis d) pancreatitis e) appendicitis
8. Such skin disease as scabies may be caused by parasitic insects, bacteria or pathogenic fungi.  a) teaching b) is teaching c) be teaching d) to be teaching e)is being teaching
<ul><li>9are the most aggressive.</li><li>a) adenoma b) phlegmona c) melanomas d) pappiloma</li><li>e) hemangioma</li></ul>
<ul> <li>10. Bacterial infections are often treated with medications such as an</li> <li>a) anticeptics</li> <li>b) alcohol</li> <li>c) antibiotics</li> <li>d) antihistamines</li> <li>e) antocoagulants</li> </ul>

#### **PACKAGE INSERTS**

Exercise 1. Topic vocabulary:

Exercise 1: Topic voc				
adverse reaction	[ˈædvɜːs riˈækʃən]	несприятливі реакції		
		зареєстрована патентована		
brand name	[brænd neim]	назва лікарського засобу		
contraindication, n	[ˌkɒntrəˌɪndɪˈkeɪʃən]	протипоказання		
drug abuse	[drʌg əˈbjuːz]	зловживання ліками		
		непатентована назва		
generic name	[dʒəˈnerɪk neɪm]	лікарського засобу		
indication, <i>n</i>	[ˌɪndɪˈkeɪʃən]	показання		
leaflet, n	[ˈliːflət]	листок		
manufacturing	[ˌmænjʊˈfæktʃərɪŋ	фармацевтична компанія		
pharmaceutical company	fa:məˈsjuːtɪk <sup>ə</sup> l ˈkʌmpəni]	виробник		
		відноситься до		
neoplastic, adj	[ˌniːəʊˈplæstɪk]	новоутворення		
		анотація до лікарського		
package insert	[ˈpækɪdʒ ɪnˈsɜːt]	засобу		
pharmacology, n	[ˌfaːməˈkɒlədʒi]	фармакологія		
precaution, <i>n</i>	[prɪˈkəːʃən]	застереження		
property, n	[ˈprɒpəti]	властивості		
target, n	['taːgɪt]	мета, об'єкт		

#### Exercise 2. Read and translate the following words:

Reoperate; regroup; remake; rebuild; recover; remove; recurring; return; reinvasion; reaction.

Exercise 3. Complete the table with the words from the text derived from the following words:

	properties	clinical	
chemical			impairments
	abuse	package	
pharmacological			interaction
	condition	neoplastic	

### Exercise 4. Give Ukrainian equivalents of the following word-combinations:

Licensed medicines; follow a standard format; clinical pharmacology; absorb and eliminate; results of various clinical trials; medication's effect on various populations; physical impairments and drug interactions; cause physical dependence; results of an overdose; storage information, to be grouped into, gastrointestinal and cardiovascular drugs, drug leaflet.

## Exercise 5. Read and translate the text: PACKAGE INSERTS

Pharmacology is the branch of medicine and biology concerned with the study

of drugs: their preparation and properties, uses and effects. Drug is a chemical substance used in the treatment, cure, prevention, or diagnosis of disease. Drug or medicines are grouped into several classes depending on their pharmacological effects on the body, target organs or systems, etc. For example, there are a wide variety of cardiovascular drugs, gastrointestinal drugs, neuropharmacologic drugs, antibiotics, neoplastic drugs, hormones, and others. Before taking any medicine, patient should learn all information about it that giving into package insert.

Package Inserts or Patient information leaflets (drug leaflet) are leaflets containing specific information about medical conditions, doses, side effects that packed with medicines to give the user information about the product. Patient information leaflets are written by the manufacturing pharmaceutical company. All licensed medicines need to carry such a leaflet.

Package inserts follow a standard format for every medication and include the same types of information. The first thing listed is usually the brand name and generic name of the product. The other sections are as follows:

Clinical pharmacology - tells how the medicine works in the body, how it is absorbed and eliminated, and what its effects are likely to be at various concentrations. It may also contain results of various clinical trials (studies) and/or explanations of the medication's effect on various populations (e.g. children, women, etc.).

Indications and usage - uses (indications) for which the drug has been approved (e.g. migraines, seizures, high blood pressure).

Contraindications - lists situations in which the medication should *not* be used, for example in patients with other medical conditions such as kidney problems or allergies.

Warnings - covers possible serious side effects that may occur.

Precautions - explains how to use the medication safely including physical impairments and drug interactions.

Adverse reactions - lists *all* side effects observed in all studies of the drug (as opposed to just the dangerous side effects which are separately listed in "Warnings" section).

Drug abuse and dependence - provides information regarding whether prolonged use of the medication can cause physical dependence (only included if applicable).

Overdosage - gives the results of an overdose and provides recommended action in such cases.

Dosage and administration - gives recommended dosage(s); may list more than one for different conditions or different patients (e.g., lower dosages for children).

Physical properties - explains in detail the physical characteristics of the medication including color, shape, markings, etc., and storage information (e.g., "Do not store above 95°").

### Exercise 6. Answer the following questions to the text:

- 1. What is pharmacology?
- 2. What is a package insert?
- 3. What are the main sections of an information leaflet?
- 4. What does the section Indications and Usage contain?

- 5. What does the section Contraindications list?
- 6. What does the section Precautions explain?
- 7. What does the section Overdosage give?
- 8. Which section explains in detail the physical characteristics of the medication including color, shape, markings, etc., and storage information?

#### **Exercise 7. Match the terms with their definitions:**

				l l						
1.	antibio	tics		a) a	a medicine intended to reduce inflammation					
2.	vitamin			b) a	any medicine that lowers body temperature to prevent or					
				ate	fever					
3.	antipyı	etic		c) a	chemical	substance	derival	ole from a	mold or l	oacterium
	an kill microorganisms and cure bacterial infections						ons			
4.	. antiviral			d) he	heart drug					
5.	anti-			e)	_					
	nmatory				drug prescribed to prevent blood from clotting					
6.	vasodilator			f) an	any of a group of organic substances essential in small					
ities to normal metabolism										
7.	antidepressant			g) ai	any drug that destroys viruses					
8.	anticoagulant			h) m	ood-lifting	g drug				
1.	2.		3.		4.	5.	6.	7.	8.	
			,	·						
8.	anticoa			g) aı	ny drug tha ood-lifting	at destroys g drug	s viruse		8.	

## Exercise 8. Read the definitions and fill in the blanks with the name of disease below:

	overdosage, precaution, drug abuse, clinical pharmacology,
	adverse reaction, indication, physical property, contraindication
1.	is the use of a drug for a nontherapeutic effect.
2.	is the condition resulting from an excessive dose.
3.	is the reason to prescribe a drug or perform a procedure.
4.	is unexpected, serious symptoms coinciding with the
administrati	on of a drug.
5.	is any property used to characterize matter.
6.	is the factor that renders the administration of a drug or the
carrying out	of a medical procedure inadvisable.
7.	is explanation of the medication's effect on various
populations	
8.	is an action taken in advance to protect against possible
danger, failt	are, or injury.

# Exercise 9. Find the English equivalents to the following word-combinations:

Анотації до лікарських засобів; медичні умови; побічні дії; фармацевтична компанія виробник; непатентована назва лікарського засобу; зареєстрована патентована назва лікарського засобу; поглинати та видаляти; результати різних

клінічних дослідів; схвалені ліки; взаємодія ліків; визивати фізичну залежність; інформація щодо зберігання.

### **Exercise 10. Fill in the gaps with the appropriate prepositions:**

Pharmacology is the branch ... medicine and biology concerned ... the study of drugs. Drug or medicines are grouped ... several classes depending ... their pharmacological effects ... the body. Patient information leaflets are written ... the manufacturing pharmaceutical company. Package inserts follow a standard format ... every medication and include the same types ... information.

#### Exercise 11. Read, translate and decide which sections:

indications, contraindications, physical properties, side effects

- 1. Zaditen is an antiasthmatic drug with marked antianaphylactic properties and a specific antihistaminic effect.
  - 2. Following oral administration, Fosiopril is absorbed slowly.
- 3. Daflon treats venous insufficiently and oedema of venous origin by reinforcing the walls of veins.
- 4. Atrovent is indicated as a bronchodilator for maintenance treatment of bronchospasm.
- 5. Eye drops may be used for the prevention of ocular infection after removal of a corneal or conjuctival foreign body.
- 6. Phenergan is indicated in many allergic disorders and anaphylactic reactions including hay fever, urticaria and sensitization reactions of various drugs.
  - 7. Dosage should be adjusted according to blood pressure response.
- 8. If immediate action is required, the capsule could be chewed and held in mouth.
- 9. Take half of the tablet twice daily or 1 capsule in the evening only for children under 3.
- 10. The use of Unasyn is contraindicated in individuals with a history of hypersensitivity to any of the penicillins.

## **Exercise 12. Put questions to the underlined words:**

- 1. Tablets Noroxin should be stored <u>in a tightly closed container</u>.
- 2. The expiration date is nfentioned <u>on the package.</u>
- 3. Renal function should be closely monitored, <u>as it may be further impaired</u> by the use of antihypertensive drugs.
- 4. <u>Prolonged use of antibiotics</u> may give rise to overgrowth of nonsusceptible microorganisms and fungi.
- 5. Pantrisin ophthalmic solution and ointment are incompatible with <u>other preparations</u>.
- 6. Kesalamine produces an acute intolerance syndrome <u>characterized by acute abdominal pain and bloody diarrhea.</u>
  - 7. <u>Tachycardia and blood pressure</u> generally subside after a few days.
  - 8. Zocar may cause <u>fatal harm</u> when administered to a pregnant woman.

#### Exercise 13. Put the verbs in brackets into the correct form:

- 1. Isocard (to contraindicate) in patients sensitive to the drug.
- 2. Hypersensitivity to atropine or its derivatives (to report).
- 3. Mesalanine is 5-amino-2-hydroxybensoic acid, and it (to classify) as an anti-inflammatory drug.
  - 4. Benazepril hydrochloride (to be) soluble in water, in methanol.
- 5. Zocor is a cholesterol lowering agent that (to derive) synthetically from a fermentation product of Aspergillus terreus.
- 6. Cetax (to indicate) for the treatment of patient with genitourinary infections caused by susceptible strains of microorganisms.
  - 7. Suppositories (to indicate) for the treatment of active ulcerative proctitis.
  - 8. Weight gain occasionally (to report).

Exercise 14. Make a summary of the package insert below, comment on the properties, composition, mechanism of action, indication, dosage and use, contraindications, side effects, storage and term of validity of the drug:

MAGASIL (MIXTURE)

#### **COMPOSITION:**

Each 10 mLof mixture contains:

Magnesium carbonate,	500 mg
Magnesium trisilicate	500 mg
Sodium bicarbonate	500 mg

#### PHARMACOLOGICAL CLASSIFICATION:

Antacids (acid neutralizers)

#### PHARMACOLOGICAL ACTION:

Acid neutralising, diminish activity of pepsin in gastric secretion.

#### **INDICATIONS:**

For the relief of acid ingestion, heartburn, hyperacidity, dyspepsia, gastritis and reflux oesophagitis

#### **CONTRA-INDICATIONS:**

Sensitivity to any of the active ingredients

#### WARNINGS:

Do not use this product if you are on a sodium-restricted diet, or suffer from hypertension, of heart failure, except under the advice and supervision of a doctor.

#### DOSAGE AND DIRECTIONS FOR USE:

Adults: two to four medicine measurefuls every four hours.

Do not use the maximum dosage of this product for more than 2 (two) weeks, except under the advice and supervision of a medical practitioner, or use as directed by a doctor.

#### SIDE EFFECTS AND SPECIAL PRECAUTIONS:

May cause diarrhea. Release of carbon dioxide may cause discomfort. MAGASIL may interfere with the absorption of other medicines if taken concomitantly.

Sodium bicarbonate can cause stomach cramps and flatulence. Excessive

administration of sodium bicarbonate may lead to metabolic alkalosis, especially in patients with impaired renal function. Symptoms may include shortness of breath, muscle weakness and mental disturbances such as restlessness, convulsions and coma. Sodium bicarbonate should be administered extremely cautiously to patients with congestive heart failure, renal impairment, and cirrhosis of the liver or hypertension and to patients receiving corticosteroids.

#### **IDENTIFICATION:**

A white homogenous mixture with a slight peppermint flavor

PRESENTATION:

Brown plastic containers of 100 mL, 200 mL, 500 mL, and 2.5 litres

STORAGE INSTRUCTIONS:

Store in a cool, dark place below 25°C.

KEEP OUT OF REACH OF CHILDREN

Exercise	<b>15.</b>	Put	the	sentences	into	the	correct	order	to	explain	the	term
"package inser	t":											

All licensed medicines need to carry such a leaflet.
The first thing listed is usually the brand name and generic name of the
product.
Patient information leaflets are written by the manufacturing pharmaceutical
company.
The main sections of package insert are clinical pharmacology, indications
and usage, contraindications, warnings, precautions, adverse reactions, drug abuse,
overdosage, dosage and administration, physical properties.
Package Inserts or Patient information leaflets (drug leaflet) are leaflets
containing specific information about medicines.

#### Завдання для самостійної роботи студентів (СРС)

## І. Перекладіть наступні словосполучення:

- 1. Анотації до лікарських засобів
- 2. побічні дії
- 3. фармацевтична компанія виробник
- 4. непатентована назва лікарського засобу
- 5. зареєстрована патентована назва лікарського засобу
- 6. поглинати та видаляти
- 7. результати різних клінічних дослідів
- 8. взаємодія ліків
- 9. визивати фізичну залежність
- 10. інформація щодо зберігання

#### II. Дайте відповіді на наступні питання:

- 1. What is a package insert?
- 2. What are the main sections of an information leaflet?
- 3. What does the section Clinical Pharmacology contain?
- 4. What does the section Indications and Contraindications contain?

What does the section Overdosage give? 5.

## **III. Розкрийте поняття:** Анотація до лікарських засобів

#### **Test**

- 1. ... are leaflets containing specific information about medical conditions, doses, side effects that packed with medicines to give the user information about the product.
- b) recommendations c) instructions a) prescriptions d) package inserts e) administrations
  - 2. Patient information leaflets are written by ...
- a) the physician b) the manufacturing pharmaceutical company c) the chemist d) the nurse e) the district doctor
  - 3. The first thing listed in a package insert is usually ... of the product.
- a) the dosage b) the contraindications c) the brand name and generic name d) the side effects e) indications
- 4. ...tells how the medicine works in the body, how it is absorbed and eliminated, and what its effects are likely to be at various concentrations.
  - a) Section Warnings
- b) Section Clinical Pharmacology
- c) Section Overdosage d) Section Physical properties
- e) Section Contraindication
- 5. Section Indication and Usage includes...
- a) possible side effects of the drug
- b) situations in which the medication should not be used
- c) uses (indications) for which the drug has been approved
- d) information regarding whether prolonged use of the medication can cause physical dependence
- e) explanation how to use the medication safely including physical impairments and drug interactions
  - 6. Section Contraindications lists...
  - a) possible side effects of the drug
  - b) situations in which the medication should not be used
  - c) uses (indications) for which the drug has been approved
- d) information regarding whether prolonged use of the medication can cause physical dependence
- e) explanation how to use the medication safely including physical impairments and drug interactions
  - 7. Section Dosage and administration includes...
  - a) uses (indications) for which the drug has been approved
  - b) situations in which the medication should not be used
- c) information regarding whether prolonged use of the medication can cause physical dependence

- d) recommended dosage(s)
- e) explanation how to use the medication safely including physical impairments and drug interactions
  - 8. Section Precautions explains...
- a) the physical characteristics of the medication including color, shape, markings, etc., and storage information
- b) how to use the medication safely including physical impairments and drug interactions
  - c) what should be done in case of overdosage
  - d) what side effects may occur
  - e) recommended dosage(s)
  - 9. Section Physical properties explains ...
  - a) what side effects may occur
- b) the physical characteristics of the medication including color, shape, markings, etc., and storage information
  - c) what should be done in case of overdosage
  - d) what side effects may occur
  - e) what recommended dosage(s)
  - 10. Section Overdosage gives ...
- a) the physical characteristics of the medication including color, shape, markings, etc., and storage information
  - b) recommended dosage(s)
  - c) situations in which the medication should not be used
  - d) the results of an overdose and provides recommended action in such cases
- e) explanation how to use the medication safely including physical impairments and drug interactions

## CENTRAL NERVOUS SYSTEM DRUGS. CARDIOVASCULAR DRUGS

Exercise 1. Topic vocabulary:

additive <i>adj</i>	[əˈdɪktɪv]	що викликає звикання
analgesic n	[æn(ə)l'dʒı:zık]	анальгетик, знеболюючий засіб
anticoagulant <i>n</i> ['æntɪkəu'ægjulənt		речовина, що затримує
		згортання крові
appreciation <i>n</i>	[əpriːʃɪˈeɪʃ(ə)n]	правильне сприйняття
blood clotting <i>n</i>	[ˈblʌdˌklɒtɪŋ	згортання крові
constrict v	[kənˈstrɪkt]	стискати, скорочувати;
digitalis glycosides	[ˌdɪdʒɪˈteɪlɪs	глікозиди наперстянки
n	ˈglaɪkəʊˌsaɪd]	
euphoria n	[juːˈfɔː.ri.ə]	ейфорія; піднесено-радісний
		настрій
excretion <i>n</i>	[ɪkˈskriːʃ(ə)n]	виділення
habit-forming <i>adj</i>	[ˈhæb.ɪtˌfəː.mɪŋ]	що викликає звикання
heart failure <i>n</i>	['haːt ˈfeɪljə]	серцева недостатність
hypnotic <i>n</i>	[hɪpˈnɒtɪk]	снотворний засіб
insomnia n	[inˈsɒmniə]	безсоння
involuntary adj	[in'vplant(a)ri]	що мимовільно скорочуються
opening <i>n</i>	[ˈəʊp(ə)nɪŋ]	просвіт (судин)
restlessness n	[ˈrestləsnəs]	стурбованість, занепокоєння
seizure n	[ˈsiːʒə]	напад; приступ
suppress v	[səˈprɛs]	пригнічувати
unconsciousness n	[en 'kɔn(t)ʃəsnəs]	несвідомий стан

Exercise 2. Study the following combining forms ad their meanings. Do you know any other words formed with their use?

Combining form	<b>Definitions</b>	Term
pharmac-	drug	pharmacology
chem-	drug	chemotherapy
tox-	poison	toxic
		toxicology
contra-	against	contraindication
cras-	disease	dyscrasia
derm-	skin	hypodermic
lingu	tongue	sublingual

# Exercise 3. Translate the following word-combinations into your native language:

Drugs of plant and animal origin, to depress the nerves in the brain and spinal cord, to quiet and relax the patient, to relieve seizures, the state of unconsciousness, loss of pain sensation, and muscle relaxation, a temporary feeling of euphoria (well-being), excessive doses, additive and habit-forming, loss of pain sensation, loss of the

appreciation of pain, to contract with sufficient force, to change the rate and forcefulness of the heartbeat, to prevent blood clotting, to prevent the formation of clots in veins and arteries, to stop local bleeding, smooth (involuntary) muscles in the body, to promote excretion of fluid, to constrict muscle fibers.

#### **Exercise 4. Read and translate the text:**

#### CENTRAL NERVOUS SYSTEM DRUGS. CARDIOVASCULAR DRUGS

People in every civilization in recorded history have used drugs of plant and animal origin to prevent and treat diseases. Many of these drugs are still in use today, but most drugs used in modern medicine are produced synthetically.

According to Collins dictionary, a drug is a synthetic, semisynthetic, or natural chemical substance used in the treatment, prevention, or diagnosis of disease, or for other medical reasons.

There are different types of drugs used to treat and prevent different diseases.

Central Nervous System Drugs affect the central nervous system and are of two main types: those which stimulate the nerves in the brain and spinal cord, stimulants, and those which depress the nerves in the brain and spinal cord, depressants. Stimulants produce a temporary feeling of euphoria (well-being) and help to relieve lethargy. Amphetamines can produce restlessness, insomnia and nervousness as well as hypertension and gastrointestinal disorders when given in high doses. Used in excessive doses, such side effects as convulsions can appear.

There are several types of central nervous system depressants. These include analgesics, hypnotics, sedatives and barbiturates, tranquilizers, anticonvulsants, alcohol and anesthetics.

Analgesics are used to relieve pain. They are divided into two categories: narcotic and nonnarcotic. Narcotic analgesics can suppress the central nervous system and relieve pain, but in excessive doses produce unconsciousness, stupor, coma, and possibly death. Most of narcotic analgesics are additive and habit-forming.

Sedatives are used to quiet and relax the patient without necessarily producing sleep. Some drugs act as sedatives in small doses and in large doses as hypnotics that produce sleep.

Anticonvulsants are used to treat epilepsy and relieve seizures. Anesthetics produce temporary state of unconsciousness, loss of sensation and loss of the appreciation of pain.

Cardiovascular drugs may be divided into three groups: drugs that affect the heart; drugs that affect blood pressure and drugs that prevent blood clotting.

Drugs, that affect the heart, change the rate and force of the heartbeat are called cardiac glycosides. These drugs are used to treat patients in heart failure (when the heart is not contracting with sufficient force).

Drugs that correct an irregular heartbeat and slow a heart that is beating too fast are called anti-arrhythmics.

Vasodilators are drugs which relax the muscles of vessels walls, thus increasing the size of blood vessels.

Nitrites are drugs which are also used as vasodilators. They dilate all smooth (involuntary) muscles in the body, but have a greater effect on the muscles of the

coronary blood vessels.

Diuretics promote excretion of fluid and which in turn reduces the volume of blood and thus also low blood pressure.

Vasoconstrictors are drugs which constrict muscle fibers around blood vessels and narrow the size of the vessel opening. Vasoconstrictors are needed to raise blood pressure, increase the force of heart action, and stop local bleeding.

Drugs that prevent blood clotting are called anticoagulants. They are used to prevent the formation of clots in the veins and arteries.

Exercise 5. Match the following Ukrainian words and word combinations with the English ones:

1. to constrict muscle fibers	а) знеболююче, що викликає звикання
2. habit-forming analgesics	b) сприяти виділенню рідини
3. to produce loss of pain sensation	с) лікувати серцеву недостатність
4. to promote excretion of fluid	d) викликати втрату відчуття болю
5. to produce unconsciousness	е) запобігати формуванню тромбів
6. to produce restlessness and	f) продукувати несвідомий стан
insomnia	
7. to treat heart failure	g) скорочувати м'язові волокна
8. to prevent the formation of clots	h) спричиняти занепокоєння та безсоння

## **Exercise 6. Answer the questions to the text:**

- 1. What is a drug?
- 2. What types are CNS drugs subdivided into?
- 3. What drugs are used before surgery to stop appreciation of pain?
- 4. What is the action of anticonvulsants?
- 5. What are the main groups of cardiovascular drugs?
- 6. What drugs are used to increase heart rate and the force of contraction?
- 7. What drugs are used to low blood pressure?
- 8. What is the action of anticoagulants on the human body?

#### Exercise 7. Match the words and word-combinations with their definitions:

1. anesthetics	a. mild purgative (promoting defecation)
2. antacids	b. drugs producing the loss of sensation like lidocaine
3. antibiotic	c. drugs relieving nausea and vomiting
4. vasodilators	d. drugs used to prevent or abolish seizures
5. anticonvulsant agents	e. drugs inhibiting the growth of bacteria
6. antiemetics	f. drugs relieving constipation
7. purgatives	g. drugs neutralizing acids in the stomach
8. laxatives	h. relax the muscles of vessel walls

## Exercise 8. Translate the words given in italics:

- 1. Opium is знеболююче, що викликає звикання.
- 2. Stimulants are administered to produce тимчасове відчуття гарного самопочуття.
  - 3. This drug лікує серцеву недостатність.

- 4. If you take this drug y надмірних дозах it may cause restlessness.
- 5. Anesthetics *продукують несвідомий стан* and enable the performance of other medical interventions.
- 6. Судинорозиирювальні препарати relax muscle walls and low blood pressure.
- 7. The patient was administered anticoagulants щоб запобігти формуванню тромбів.
- 8. Anesthesia is a unique medical intervention which продукує втрату відчуття болю.

#### Exercise 9. Find synonyms to the text to the phrases given below:

Loss of the appreciation of pain, sleeplessness, to relieve convulsions, anxiety, to soothe and calm down, loss of consciousness, adverse effects, illness, additive, to increase blood pressure, to decrease the volume of blood.

## **Exercise 10. Insert the missing prepositions:**

- 1. If this drug is used ... excessive doses, it can produce convulsions.
- 2. Alcohol is central nervous system depressant which affects ..... the cerebral cortex of the brain.
  - 3. Most of these drugs are extracted ... plant leaves.
  - 4. These drugs restore the heart rhythm ... depressing myocardial impulses.
  - 5. These drugs are used ... treating blood vessel diseases.
- 6. This drug is easily absorbed ... the blood stream and is also easily excreted ... the body.
- 7. Sedatives are used to quiet and relax the patient ... necessarily producing sleep.
- 8. Central nervous system stimulants are used to speed up vital processes ... cases of shock and collapse.

## Exercise 11. Guess what type of drugs is it said about:

1	_ inhibit the growth of microorganisms.
2.	are used to prevent the formation of clots in veins and
arteries.	
3.	are used to raise blood pressure, increase the force of
heart action, and stop local	bleeding.
4.	strengthen the myocardium and slow the rate of
contraction of the heart.	
5	produce substances, which are called antibodies that
fight a particular disease.	
6	facilitate or increase bowel movements and are
mostly used to treat constip	pation.
7	despite antibiotics are produced synthetically.
8. Penicillin wa	as the first to be produced and it
still assumes a position of	major importance in this field.

## Exercise 12. What drugs would be administered to the patient with:

Epilepsy, heart failure, hypertension , insomnia, acute pain, thrombosis.

## Exercise 13. Translate the following sentences, paying attention to Active and Passive Voice:

- 1. Diuretics excrete fluid and shrink the volume of blood within the vessels.
- 2. New kinds of microorganisms were discovered by scientists in the XX century.
- 3. The course of drug treatment of leukemia will be accompanied by X-ray treatment which should be applied externally.
  - 4. The mixture contained less than 16% of oxygen.
  - 5. This drug will act on the nervous system of the patient.
  - 6. After this injection had been introduced the felt much more quiet and relaxed.
- 7. In the cases of shock and collapse vital processes have been speeded up by central nervous system stimulants.
- 8. The usual dose of the drug which was given in the treatment of leukemia constituted 6-10 mg per day at weekly intervals.

#### **Exercise 14. Put questions to the underlined words:**

- 1. The excessive use of this drug may occasionally cause <u>a rise in blood</u> pressure.
- 2. The patient suffering from nausea and vomiting will be administered antiemetics.
  - 3. Antiserum gave only temporary protection against the disease.
  - 4. This antibiotic was obtained from <u>naturally occurring microorganisms</u>.
  - 5. <u>Most antibiotics</u> nowadays are prepared synthetically.
  - 6. The lobular pneumonia has <u>successfully</u> been treated with antibiotics.
- 7. Unlike vaccines, antiserums contain <u>antibodies rather than substances</u> that cause the body to produce antibodies.
  - 8. Before the patient went to Africa he had been vaccinated against malaria.

# Exercise 15. Open the brackets and translate the sentences into your native language:

- 1. Antiserums usually (to give) only temporary protection.
- 2. Antihistamines (not to cure) the allergic reaction, but they (to relieve) its symptoms. (refers to the future)
- 3. The patient never (to suffer) so much from an acute pain before so he (to prescribe) potent drugs.
  - 4. The doctor stated, that insomnia (to cause) by stress at work.
- 5. If you take this drug regularly the formation of clots in veins and arteries (to prevent).
- 6. Heart rhythm (to control) by antiarrhythmics after a long treatment. (refers to the past)
  - 7. Amphetamines already (to produce) restlessness and insomnia.
  - 8. The loss of the appreciation of pain in this patient (to produce) by hypnotic

drugs. (refers to the past)

### **Exercise 16. Translate into English:**

- 1. Ліки звичайно приймаються перорально, але можуть призначатися внутрішньовенно або внутрішньом'язово.
  - 2. Це лікувальний засіб для регулювання і запобігання серцевим нападам.
- 3. Лікування серцевої недостатності одна з найактуальніших проблем кардіології.
- 4. Сечогінні засоби сприяють збільшенню виділення сечі і зменшенню вмісту рідини в організмі.
  - 5. Аспірин знизить його температуру, та заспокоює біль.
- 6. Препарати, що звужують судини, необхідні, щоб підняти кров'яний тиск.
  - 7. У великих дозах серцеві глікозиди зменшують збудливість міокарда.
  - 8. Ці ліки будуть пригнічувати центральну нервову систему.

## Здання для самостійної роботи студентів

## І. Перекладіть словосполучення на англійську мову:

- 1. знеболююче, що викликає звикання
- 2. продукувати втрату відчуття болю
- 3. спричиняти занепокоєння та безсоння
- 4. продукувати несвідомий стан
- 5. надмірна доза ліків
- 6. судинорозширювальний та судино звужуючий препарат
- 7. лікувати серцеву недостатність
- 8. запобігати формуванню тромбів
- 9. скорочувати м'язові волокна
- 10. сприяти виділенню рідини

## II. Дайте відповідь на запитання:

- 1. What is a drug?
- 2. What types of CNS drugs do you know?
- 3. What drugs are used before surgery to stop appreciation of pain?
- 4. What are the main groups of cardiovascular drugs?
- 5. What is the action of anticoagulants on the human body?

**III. Розкрийте поняття:** ліки центральної нервової системи, серцевосудинні ліки

#### **Test**

- 1. Narcotic drugs are those which depress the central nervous system and produce
  - a) sleeplessness b) restlessness c) sleep d) anxiety e) excitement
  - 2. Cardiac glycosides are used to treat patients in ... .
  - a) cholecystitisb) heart failure c) pericarditis d) gastritis
  - e) angina pectoris

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and	<ul><li>3. Central nervous sy</li><li>collapse.</li><li>a) slow down</li></ul>		timulants			-			ock
ope	4. The loss of senseration yesterday. a) was removed e) will be achieved	-	-						the
	<ul><li>5 are drugs which</li><li>a) vasoconstrictors</li><li>d) glycosides</li></ul>		he muscle b) pain kil e) cocaine	llers	c) vasod				
	<ul><li>6. The drugs that stin</li><li>a) anticoagulants</li><li>d) vasodilators</li></ul>		b) stimula			-	d are ca	lled	
app	7. Anesthetics are reciation of pain. a) consciousness d) depression		which pr b) sensation e) fear			_	articula	rly loss	of
	8. Sedatives are used a) to change behavio d) to relax		b) to	thout ne o excite o stimul	c)	producin to depre	-		
<ul> <li>9 are drugs which relax the muscles of vessel walls.</li> <li>a) vasoconstrictors</li> <li>b) pain killers</li> <li>c) vasodilators</li> <li>d) glycosides</li> <li>e) cocaine derivatives</li> </ul>									
	10. Diureticsflua) discharge			•	ter d)	adminis	ter	e) excre	te

#### **ORAL HYGIENE**

**Exercise 1. Practice the pronunciation:** 

hygiene	[`haid3i:n]	detergent	[di`tə:d3ənt]
emphasize	[`emfəsaiz]	encourage	[in`karid3]
pamphlet	[`pæmplit]	debris	[`deibri:]
dietary	[`daiətri]	gingivitis	[d3ind3i`vaitis]
plaque	[pla:k]	fluoridation	[fluəri`dei∫ən]

#### **Exercise 2. Learn the following words:**

inspection огляд

heed враховувати

chair-side крісло cancel анулювати dye фарбувати

warn попереджати, запобігати

resistance стійкість, опір

benefit користь rinse полоскати

disclosing tablet виявляюча таблетка suck смоктати (таблетку)

dietary харчування detergent очищувальний debris харчові залишки

## **Exercise 3. Form verbs from the following nouns. Translate them:**

Inspection, instruction, reminder, explanation, demonstration, combination, replacement, prevention, detection, requirement, treatment, restoration, extraction, addition

## Exercise 4. Translate the sentences paying attention to the underlined words:

The beneficial effect of cleaning teeth after meals is <u>cancelled out</u> if food debris is <u>replaced</u> by frequent snacks between meals. The patients should be <u>warned against</u> snacks between meals. <u>Either</u> some fruit should be taken instead <u>or</u> snacks stopped.

## Exercise 5. Translate into Russian paying attention to the Passive Voice:

- 1. This information mustn't be ignored.
- 2. Complete clinical history and physical examination are followed by administration of a proper treatment.
  - 3. A severe attack of influenza was followed by pneumonia.
- 4. The severity of heart attack can be evaluated using this monitor without a cardiologist.
  - 5. Thirteen cases were included in the review.

#### Exercise 6. Read and translate the text:

Preventive dentistry includes instruction in oral hygiene, regular inspection and

any necessary treatment for prevention and removal of stagnation areas. Instruction in oral hygiene is best given at the chair-side, whilst posters and pamphlets in the waiting room serve as an extra reminder. Patients are told how dental disease arises and how it can be prevented. This entails an explanation of the all-important role of plaque and the effects it produces. The most impressive way of demonstrating plaque on their own teeth is to give patients a disclosing tablet to suck. This contains a dye that stains it bright red. Patients can then see by themselves in a mirror whether they are cleaning their teeth properly. They are then shown how to use a toothbrush correctly, advised to clean their teeth after every meal and warned against snacks between meals. However, they are not likely to heed such advice unless it is practicable. Patients must therefore be told how to clean their teeth when a toothbrush is not available. The best substitute in such cases is a detergent food or plain water mouth rinse.

It must be emphasized that the beneficial effect of cleaning teeth after meals is cancelled out if food debris is continually replaced by frequent snacks between meals.

Prevention is better than cure. Patients should be encouraged to have a regular inspection twice a year. Further instruction can then be given if necessary. Bitewing X-rays are taken at the same time for early diagnosis of caries. These visits will detect incipient dental disease that can be treated far more easily in its earliest stages than later.

## Exercise 7. Find equivalents for the following words and word combinations in the text:

Регулярний огляд; плакати та буклети; найбільш вражвючий спосіб, забарвлювати у яскраво-червоний колір; коли зубна щітка недосяжна; дисципліна харчування; між прийманнями їжі; замість цього; двічі на рік; подальші инструкції; захворювання на ранній стадії; початок захворювання; ушкоджені зуби.

# Exercise 8. Skim the text and look for the answers to the following questions:

- 1. What does preventive dentistry include?
- 2. When is instruction in oral hygiene best given?
- 3. What are patients told?
- 4. What does the most impressive way of demonstrating plaque contain?
- 5. The patients are only shown how to use a toothbrush correctly, aren't they?
- 6. How can patients clean their teeth if a toothbrush is not available?
- 7. Why is cleaning after every meal not enough unless it is combined with dietary discipline?
  - 8. What is better prevention or cure?
  - 9. How often should patients have a regular inspection?
  - 10. In what stage can any dental disease be treated easily?

## **Exercise 9. Translate into English:**

1. Профілактика у стоматології передбачає різноманітні способи: рекомендації з гігієни ротової порожнини, регулярні огляди, лікування з метою запобігання захворюванню.

- 2. Пацієнтам необхідно пояснити, як можна запобігти карієсу.
- чищення перевірити 3. Правильність зубів можна ШЛЯХОМ забарвлювання зубного нальоту спеціальним барвником.
  - Пацієнт повинен бачити сам, чи правильно він чистить зуби.
- Якщо зубна щітка недосяжна, потрібно, принаймні, з'їсти яблуко або 5. прополоскати рота водою.
- Чищення зубів неэффективне після їжі, якщо ви перекусуєте між прийманнями їжі.
- Пацієнта слід переконати у необхідності обстеження стану ротової порожнини регулярно двічі на рік.
- Це допоможе диагностувати захворювання ротової порожнини на їхній ранній стадії.
  - 9. Раннє лікування дозволить зберігти зуби протягом усього життя.

## Exercise 10. Insert the necessary prepositions and translate the text:

**Increasing Resistance to Caries** 

properly.

Increasing the resistance ... a tooth to acid attack has already been mentioned. It can be done ... dietary measures and fluoridation. But fluoridation is a subject ... such importance to the dental profession that it is covered ... much more detail. Decisions to introduce fluoridation are made ... local authority level and every dental student should know its benefits so that they may voice their opinion ... the basis of

know	ledge	rather than e	motion.					
		tients how			and how		-	
	a)	is told	b) tola	c) can te	211	a) are to	ola	e) talk
give	patient a)	ne most impres to suck. Remedy e) a candy	·					wn teeth is to
teeth	proper		·					cleaning their e) might
	4. Th a) c) to	e best substit to eat fruit a use a deterge drink	tute in case and vegetab	when a too les b)	othbrush onot to ea	is not ava at inse after	ilable is .	,
	a)	struction in o at the chair- posters and p	-side	•	Internet	n the polic	*	t hospital

6. Patients can then see ... in a mirror whether they are cleaning their teeth

	a) d) the	on themsely mselves	,	•		c) by their ov	vn
easily		earliest stag		-	ntal disea d) in		treated far more
	8. Hov	, ,		•		ce unless it is . d) substantial	
if f		-	nually rep	laced by fre	equent sna	cks between n	eeth after meals is neals. e) cancelled out
every	meal a	and warned a are shown	against sna	cks betwee	n meals.	dvised to clea d) are	n their teeth after showed
	e) 18 S	howed					