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Английский язык для медицинских специалистов

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Пособие включает в себя теоретический и практический материал по пяти основным медицинским темам, тексты для чтения и перевода с заданиями, упражнения по грамматике и словообразованию. В конце каждой темы представлен лексический минимум, включающий наиболее употребительную медицинскую терминологию. Также пособие содержит тесты, позволяющие оценить знание, понимание и правильность применения обучающимся медицинской терминологии. Материалом для подготовки пособия послужили аутентичные учебники и научные работы по медицине. Пособие предназначено для студентов медицинских вузов и колледжей, аспирантов и специалистов, занятых в медицинской сфере.

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Введение

Целью обучения медицинских специалистов профессиональному английскому языку формирование и развитие профессиональной коммуникативной компетентности.

Пособие включает в себя теоретический и практический материал по пяти основным медицинским темам:

1. Cardiovascular diseases
2. Respiratory diseases
3. Gastroitestinal diseases
4. Social deaseses
5. Children infectious diseases

В каждом разделе представлен лексический минимум, включающий наиболее употребительную медицинскую терминологию. Обращается особое внимание на сочетаемость слов, употребление предлогов и правила словообразования. Вопросно-ответные упражнения к отдельным фрагментам текста обеспечивает усвоение словаря в режиме его контекстуального использования с целью формирования относительно самостоятельных высказываний . Дальнейшее обсуждение содержание текстов с установлением основного содержания текста и его деталей, изложением дополнитетельной информации, высказыванием собственного мнения и т.д. проводится в зависимости от уровня подготовленности учебной группы.

Пособие также содержит тесты, позволяющие оценить знание, понимание и правильность применения обучающимся медицинской терминологии по каждому разделу.

UNIT 1. CARDIOVASCULAR DISEASES

1. Anatomy and physiology of the cardiovascular system

- ***VOCABULARY and PRONOUNCIATION***

Task 1. Read out.

1. heart
   heart rate
   normal heart rate
   abnormal heart rate
2. artery
   arterial
   arterial blood
   arterial blood supply
3. vein
   venous
   venous blood
   venous blood return
4. pulse
   pulse rate
   rapid pulse rate
   pulse pressure
   low pulse pressure
5. blood
   blood pressure
   systolic blood pressure
   increased systolic blood pressure
   diastolic blood pressure
   decreased diastolic blood pressure

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What are the main structural parts of the cardiovascular system? What function does it perform in the body?

Task 3. Read the text and answer the questions.

The heart is the main organ of the cardiovascular system and is located in the left side of the mediastinum. There are three layers in the heart: the epicardium, the myocardium and the endocardium. The epicardium covers the outer surface of the heart. The myocardium is the

middle layer and is the actual contracting muscle of the heart. The endocardium is the innermost layer and lines the inner chambers and heart valves.

There are four chambers in the heart: the right atrium, the right ventricle, the left atrium, and the left ventricle. The right atrium receives deoxygenated blood from the body via the superior and inferior vena cava. The right ventricle receives the blood from the right atrium and pumps it to the lungs via the pulmonary artery. The left atrium receives oxygenated blood from the lungs via four pulmonary veins. The left ventricle is the largest and the most muscular chamber; it receives oxygenated blood from the lungs via the left atrium and pumps blood into the systemic circulation via the aorta.

There are four valves in the heart. The atrioventricular valves lie between the atria and the ventricles. The bicuspid or mitral valve is located on the left side of the heart. The tricuspid valve is located on the right side of the heart. The pulmonic semilunar valve lies between the right ventricle and the pulmonary artery. The aortic semilunar valve lies between the left ventricle and the aorta.

The conductive system of the heart includes the sinoatrial node, the atrioventricular node, the bundle of His, and Purkinje fibers. All these structures are connected with each other consequently. The system spreads the waves of depolarization through the atria and the ventricles.

Two main heart sounds are usually heard in the fifth intercostal space at the left midclavicular line. They are called the first heart sound and the second heart sound. The first heart sound (S_1) is heard as the atrioventricular valves close. The second heart sound (S_2) is heard when the semilunar valves close.

The normal heart rate is 60 to 80 beats per minute. The normal blood pressure is 120/80 mm Hg. The first figure signifies the systolic blood pressure. The second figure signifies the diastolic blood pressure. The

difference between the systolic and diastolic blood pressure is called pulse pressure and accounts for approximately 40 mm Hg. Heart rate (HR) and blood pressure (BP) are regulated by the autonomic nervous system, e.g. sympathetic and parasympathetic nervous system.

The vascular system consists of different types of vessels, such as arteries, arterioles, capillaries, venules, and veins. Arteries are vessels through which the blood passes away from the heart to various parts of the body. They convey highly oxygenated blood from the left side of the heart to the tissues. Arterioles control the blood flow from the capillaries. Capillaries allow the exchange of fluid and nutrients between the blood and the interstitial spaces. Venules receive blood from the capillary bed and move blood into the veins. Veins transport deoxygenated blood from the tissues back to the heart and lungs for oxygenation.

1. List the three layers of the heart.
2. What are the four chambers of the heart?
3. Name the heart valves and their locations.
4. Describe the systemic and pulmonic circulations of the heart.
5. What two parts does autonomic nervous system consist of?
6. What is the normal heart rate?
7. What are the parameters of normal systolic and diastolic BP?
8. List different types of vessels of the vascular system.

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. The myocardium is the actual contracting muscle of the heart.
2. The left atrium receives deoxygenated blood.
3. The right ventricle pumps the blood into the pulmonic circulation.
4. HR and BP are regulated by the autonomic nervous system.
5. Veins are the smallest vessels of the vascular system.

- ***GRAMMAR***

Task 5. Find verb patterns underlined in the text and complete the table.

Subject	Verb pattern	Active / Passive Voice
The heart	is located	Passive
The epicardium	covers	Active
The right atrium		
The left ventricle		
The conductive system		
All these structures		
The system		
Two main heart sounds		
The first figure		
HR and BP		
The vascular system		

- ***WORD-BUILDING***

Task 6. Find the appropriate adjective in the text and complete the table.

Noun	Adjective	Example (adjective + noun)
heart		
vessel	vascular	cardiovascular system
lung		
muscle		
atrium		
ventricle		
systole	systolic	systolic blood pressure
diastole		
artery		
vein		
nerve		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Example 1. A: How do you say *камера сердца* in English?

B: It's *a heart chamber.*

Example 2. A: What does *heart valve* mean?

B: It means *сердечный клапан*.

Task 8. Complete the sentences.

1. The cardiovascular system consists of …
2. The heart is located in …
3. There are three layers of the heart: …
4. There are four chambers in the heart: …
5. There are four valves: …
6. The conductive system includes …
7. The two main heart sounds are heard in …
8. The normal heart rate is …
9. The normal blood pressure is …
10. The vascular system consists of …

Task 9. Discuss with a partner any information you know about the topic.

2. Hypertension

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. hypertension
   hypertensive crisis
   primary hypertension
   essential hypertention
   secondary hypertension

2. blood
   blood pressure
   measure blood pressure
   high blood pressure
   persistent high blood pressure
   low blood pressure

3. to treat – treatment
   to prevent – prevention
   to measure – measurement
   to cause – cause
   to complain of – complaint
   to elevate – elevation
   to reduce – reduction

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What is hypertension? Why do you think so many people in developed contries suffer from this disease? What can we do to solve the problem?

Task 3. Read the text and answer the questions.

Hypertension is a persistent elevation of the systolic blood pressure above 140 mm Hg and the diastolic blood pressure above 90 mm Hg It can be classified as primary (or essential) and secondary. Primary hypertension indicates that no specific medical cause can be found. Secondary

hypertension indicates that the high blood pressure is the result of another condition, such as kidney disease or certain tumors.

High blood pressure is the major risk factor for coronary, cerebral, renal, and peripheral vascular disease. The disease is initially asymptomatic. But later the patient may complain of headache, visual disturbances, dizziness, chest pain, tinnitus, etc.

One of the serious complications of hypertension is hypertensive crisis. It refers to any clinical condition requiring immediate reduction in blood pressure. It is acute and life-threatening. The accelerated hypertension requires emergency treatment, since target organ damage (brain, heart, kidneys, retina of the eye) can occur quickly. Death can be caused by stroke, renal failure, or cardiac disease.

Diagnosis of hypertension is generally made on the basis of a persistent high blood pressure. It usually requires three separate measurements at least one week apart. If an elevation is extreme, or end-organ damage is present, the diagnosis may be applied immediately.

The treatment includes reduction of blood pressure and prevention or lessening of the extent of organ damage. Nonpharmacological methods, such as lifestyle changes, may be initially prescribed. The patient may require pharmacological treatment: such medications as beta-blockers, ACE-inhibitors, diuretics and others.

It is evident that our health mostly depends on us. If you want to be healthy, people should keep to a diet, be active, even-tempered, and never smoke or use any substances, such as drugs or alcohol.

1. What is the systolic blood pressures in hypertension?
2. What is the diastolic blood pressure in hypertension?
3. List the risk factors for this disease.
4. What does the patient with hypertension complain of?
5. How can we make a diagnosis of hypertension?

6. What are the ways of treatment of hypertension?
7. What does nonpharmacological method of treatment include?
8. What organs can be damaged in hypertensive crisis?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Hypertension is a reduction of blood pressure.
2. Primary hypertension is caused by kidney disease.
3. Hypertensive crisis is a life-threatening condition.
4. The treatment of hypertension can be nonpharmacological.
5. To make a diagnosis of hypertension BP measurement is not necessary.

- ***GRAMMAR***

Task 5. Find verb patterns underlined in the text and complete the table.

Subject	Modal verb	Main Verb	Active / Passive
They	might	occur	Active
Hypertension			
Primary hypertension			
No medical cause			
The patient			
Accelerated hypertension			
Death			
Diagnosis			
The treatment			
Nonparmacological methods			
People			

- ***WORD-BUILDING***

Task 6. Find the appropriate adjective in the text and complete the table.

Noun	Adjective	Example (adjective + noun)
brain	cerebral	cerebral function
heart		
kidney		
vision		
myocardium		
medicine		
pharmacology		
hypertension		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Hypertension is …
2. It is classified as …
3. The disease is caused by …
4. The patients at risk are …
5. This disease is characterized by …
6. The patient experiences such symptoms as …
7. The main complications of hypertension are …
8. The diagnostic methods include …
9. The treatment of hypertension is aimed at …
10. Preventive measures are the following …

Task 9. Discuss any information you know about the topic with a partner.

3. Angina pectoris

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. blood
   blood supply
   blood flow
   coronary blood flow
   coronary blood flow obstruction
2. artery
   artery spasm
   coronary artery spasm
   coronary artery constriction
   coronary artery vasodilation
3. myocardium
   myocardial ischemia
   myocardial oxygen supply
   myocardial oxygen demand
   myocardial oxygen consumption
4. pain
   chest pain
   acute chest pain
   chronic chest pain
   pain on exertion
   pain at rest
   painful – painless
5. angina
   stable angina
   unstable angina
   angina attack
   anginal pain

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What is angina pertoris? What have you heard about this disease? Do you know anyone suffering from this disease?

Task 3. Read the text and answer the questions.

"Angina" is the term used to describe discomfort in the chest due to myocardial ischemia. It may occur when there is an imbalance between myocardial oxygen supply and demand.

The main causes of angina include obstruction of coronary blood flow because of atherosclerosis, coronary artery spasm, and conditions increasing myocardial oxygen consumption. Angina occurs most often between ages 30 and 50, men are affected more often than women. Risk factors include family history of angina, elevated serum lipoproteins, cigarette smoking, diabetes mellitus, hypertension, obesity, sedentary, stressful or competitive lifestyle.

The most important symptom of angina is chest pain. Stable angina is characterized by left-sided or central chest pain. Pain is precipitated on exertion and relieved at rest or sublingual nitrate.

Most patients describe a sense of apprehension or tightness in the chest but the pain may be denied at all. The pain may radiate to the neck or jaw. It is often accompanied by discomfort in the arms, particularly left, the wrists, and sometimes the hands. The patient may also describe a feeling of heaviness or uselessness in the arms. The pain occasionally is epigastric or interscapular.

Besides, the patient will experience dyspnea, sweating, palpitations, tachycardia, dizziness, and faintness. Symptoms tend to be worse after meal, in the cold, and when walking.

The history is the most important factor in making a diagnosis. Electrocardiogram can also be useful if taken in the period of acute attack.

The goal of treatment is to provide relief of an acute attack, and prevent progression of the disease and further attacks to reduce the risk of myocardial infarction. The patient should be given a tablet of nitroglycerin. Nitroglycerin produces vasodilation of coronary arteries. It should be placed under the tongue until fully dissolved, not swallowed. Instruct the patient to take one tablet for pain, and repeat every five minutes for a total of three doses. The patient should seek medical help immediately if the pain is not relieved in 15 minutes following the three doses.

1. What does the term “angina” mean?
2. List the risk factors for this disease.
3. What is the location of the pain in the patients with angina?
4. Where does the anginal pain radiate to?
5. How does the patient describe the symptoms of angina?
6. What factors can precipitate anginal pain?
7. How can the patient relieve an anginal attack?
8. How many nitrate drugs can the patient take consequently?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Angina is caused by lack of oxygen in the heart.
2. Women are affected more often than men.
3. The patient will complain of a right-sided chest pain.
4. Electrocardiogram changes can confirm the diagnosis of angina.
5. If pain is present, a patient should take 5 tablets of nitroglycerin.

- ***GRAMMAR***

Task 5. Put he verb given in brackets into Active or Passive.

1. Stable angina _____ by left-sided or central chest pain. *(to characterize)*
2. Pain _____ on exertion. *(to precipitate)*
3. A patient may _____ feeling of heaviness or uselessness in the arms. *(to describe)*
4. Men _____ more often than women. *(to affect)*
5. Pain _____ at rest or sublingual nitrate. *(to relieve)*
6. Nitroglycerin _____ vasodilation of coronary arteries. *(to produce)*
7. Pain _____ by discomfort in the arms, wrists, and sometimes the hands. *(to accompany)*

- ***WORD-BUILDING***

Task 6. Form a noun from adjectives and verbs with suffixes -ness/-ing.

Adjective	Noun	Verb	Noun
dizzy	dizziness	feel	feeling
faint		smoke	
weak		walk	
ill		drink	
tight		sweat	
heavy		listen	
useless		write	

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete thesentences.

1. Angina is …
2. It is caused by …
3. The patients at risk are …
4. The pain is characterized by …
5. It is radiated to …
6. Anginal pain is precipitated by …
7. The patient experiences such symptoms as …
8. The diagnostic methods include …
9. The treatment of angina is aimed at …
10. Preventive measures are the following …

Task 9. Discuss any information you know about the topic with a partner.

4. Stroke

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. brain
   brain damage
   brain function
   normal brain function
   abnormal brain function
   impaired brain function
2. impair
   impairment
   physical impairment
   intellectual impairment
   permanent intellectual impairment
3. cerebral
   cerebral artery
   cerebral accident
   cerebral embolism
   cerebral thrombosis
4. conscious
   consciousness
   unconscious
   unconsciousness
   loss of consciousness
   to lose consciousness
   to regain consciousness

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What is stroke? What are the possible consequencies of this disease? Can we prevent it?

Task 3. Read the text and answer the questions.

Stroke (or cerebrovascular accident) is a medical emergency. It is a rapidly developing loss of brain functions due to an interruption in the blood supply to all or part of the brain.

There are two types of stroke: ischemic and hemorrhagic. Ischemic stroke occurs when a blood clot forms in a damaged vessel and blocks the blood flow to a part of the brain. Hemorrhagic stroke is caused by bursting of a blood vessel that stops normal blood flow. As a result blood leaks into

and destroys an area of the brain. Without oxygen and nutrients, nerve cells in the brain will die within minutes. When this happens, the part of the body controlled by these cells fails to function properly as well.

The risk factors of stroke include high blood pressure, advanced age, heart disease, diabetes mellitus, hyperlipidemia, the use of estrogens, and atherosclerosis.

Stroke may be caused by cerebral thrombosis, embolism, or hemorrhage. Thrombosis as the leading cause of stroke accounts for approximately 50% of all the cases. Cerebral embolism makes up 30 to 35%, and hemorrhage – about 20 to 25%.

The symptoms of stroke can vary from mild to severe. It depends on the area of the brain involved in the pathological process. Among these symptoms one can name impaired body sensation, impaired movement, headache, dizziness, confusion, visual disturbance, loss of speech, difficulty of swallowing, etc. In most cases, the symptoms develop in minutes or over a period of hours. However, in some cases the development occurs over a period of several days.

Weakness, or paralysis on one or both sides of the body, rapid loss of consciousness, or coma would be the symptoms that signal serious stroke. Less severe stroke may have symptoms that are barely noticeable.

The diagnosis of stroke is made by electroencephalogram (EEG) data, scanning of the brain, laboratory findings, and other modern methods of diagnosis. Clinical symptoms are also very important to make the correct diagnosis.

Stroke should be taken seriously since there is always a chance of severe complications. Even if the symptoms of stroke last for less than 24 hours with a full recovery, the patient should seek medical attention. An ambulance should be called immediately. Although about half of the patients with stroke recover almost completely, some intellectual

impairment may be permanent. Stroke is one of the leading causes of death and disability in the developed countries.

The treatment of stroke depends on its severity. A patient who is hospitalized for stroke may be treated with diuretics, or anticoagulant drugs depending on the cause and extent of the damage.

Task 1. Read the text and answer these questions.

1. What does the term “cerebrovascular accident” mean?
2. List the types of stroke that you know.
3. What is hemorrhagic stroke?
4. What are the risk factors for stroke?
5. Describe the main causes of stroke?
6. Can you name the symptoms of this disease?
7. How can stroke be diagnosed?
8. Why do you think stroke is one of the leading causes of death in the developed countries?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Stroke is a slowly developing impairment of brain function.
2. It occurs when the blood flow to the part of the heart stops.
3. High blood pressure is one of the risk factors of stroke.
4. Symptoms of stroke can vary depending on the location of brain damage.
5. A patient with stroke doesn’t need hospitalization and can be treated at home.

- ***GRAMMAR***

Task 5. Match the columns A, B and C to form the sentences. Make the sentences negative, make questions and answer them.

A	B	C
Patient	can vary	by bursting of a blood vessel.
The diagnosis	may be caused	immediately.
Hemorrhagic stroke	should be called	from mild to severe.
The symptoms	can be treated	by cerebral thrombosis.
Eschemic stroke	is caused	by electroencephalogram.
An ambulance	is made	with anticoagulants.

- ***WORD-BUILDING***

Task 6. Form an adjective from the given noun and complete the table

Noun	Adjective	Example
ischemia		
hemorrhage		
brain	cerebral	cerebral function
weakness		
consciousness		
vision		
severity		
dizziness		
unconsciousness		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Stroke is …
2. The two main forms of stroke are …
3. The patients at risk are …
4. It is caused by …

5. This disease is characterized by …
6. The patient complains of such symptoms as …
7. The main complications of stroke are …
8. The diagnostic methods include …
9. The treatment of stroke is aimed at …
10. Preventive measures are the following …

Task 9. Discuss any information you know about the topic with a partner.

Check your vocabulary

acute attack [ə¦kju:t ə'tæk] **–** острый приступ
affect [ə'fekt] – поражать, нарушать
angina [æn'ʤaɪnə] **–** стенокардия
angina pectoris [æn¦ʤaɪnə 'pektərɪs] – стенокардия, грудная жаба
aorta [eɪ'ɔ:tə] – аорта
arteriole [ɑ:'tɪərɪəʊl] – артериола
artery ['ɑ:tərɪ] – артерия
atherosclerosis [¦æθərəusklə'rəusɪs] – атеросклероз
atrioventricular node [ætrɪəvɛn'trɪkjʊlə nəud] – атриоветрикулярный узел
atrioventricular valve [ætrɪəvɛn'trɪkjʊlə vælv] – атриовентрикулярный клапан
auscultate the heart (listen to the heart) ['ɔ:sk(ə)lteɪt] – аускультировать сердце
beats per minute [bi:ts pɜ: 'mɪnɪt] – ударов в минуту
bicuspid (mitral) valve [baɪ'kʌspɪd ('maɪtrəl) vælv] – двустворчатый клапан
bleeding ['bli:dɪŋ] – кровотечение
blood [blʌd] – кровь
blood clot [blʌd ¦klɔt] – тромб, сгусток крови
blood flow [blʌd ¦fləu] – кровоток
blood pressure ['blʌd¦preʃə] – кровяное давление
blood pressure measurement [blʌd ¦preʃə 'meʒəmənt] – измерение АД
bradycardia [¦bradɪ'kɑ:dɪə] – брадикардия
brain [breɪn] – головной мозг

bundle of His [ˌbʌndl əv 'hɪs] – пучок Гиса
capillary [kə'pɪl(ə)rɪ] – капилляр
cardiac disease [ˌkɑ:dɪæk dɪ'zi:z] – заболевание сердца
cardiac failure [ˌkɑ:dɪæk 'feɪljə] – сердечная недостаточность
cardiovascular disorder (cardiovascular disease) [ˌkɑ:dɪəu'væskjulə dɪˌsɔ:də] – заболевание сердечно-сосудистой системы
cause [kɔ:z] – 1. причина. 2. вызывать.
cerebrovascular accident [ˌserəbrəuˌvæskjʊlə 'æksɪd(ə)nt] – инсульт
chest pain ['ʧest peɪn] – боль в груди
complain of [kəm'pleɪn] – жаловаться на что-либо
complication [ˌkɔmplɪ'keɪʃ(ə)n] – осложнение
condition [kən'dɪʃ(ə)n] – 1. состояние. 2. условие
conductive system [kənˌdʌktɪv 'sɪstəm] **–** проводящая система
consciousness ['kɔnʃəsnəs] – сознание
contract [kən'trækt] – сокращаться
contraction [kən'trækʃən] – сокращение
coronary artery disease [ˌkɔrən(ə)rɪ ˌɑ:tərɪ dɪ'zi:z] – заболевание коронарных артерий
deoxygenated blood [di:ˌɒksɪdʒəneɪt blʌd] – деоксигенированная кровь
diagnose (make a diagnosis) ['daɪəgnəuz] – диагностировать
diastolic blood pressure ['blʌdˌpreʃə] – диастолическое давление крови
dizziness ['dɪzɪnəs] – головокружение
electrocardiogram (ECG, EKG) [ɪˌlektrəu'kɑ:dɪəgræm] – электрокардиограмма
electroencephalogram (EEG) [ɪˌlektrəuen'sefələgræm] – электроэнцефалограмма
elevate ['elɪveɪt] – повышать
elevation [ˌelə'veɪʃ(ə)n] – повышение
embolism ['embəlɪz(ə)m] – эмболия
endocarditis [ˌendəukɑ:'daɪtɪs] – эндокардит
endocardium [ˌendəu'kɑ:dɪəm] – эндокард
epicardium [ˌepɪ'kɑ:dɪəm] – эпикард
exertion [ɪg'zɜ:ʃ(ə)n] – напряжение, нагрузка; **on exertion** – при нагрузке
feel the pulse [fi:l] – пальпировать пульс
headache ['hedeɪk] – головная боль
heart [hɑ:t] – сердце
heart chamber ['hɑ:t ˌʧeɪmbə] – камера сердца

heart layer ['hɑːt ˌleɪə] – слой сердца
heart muscle ['hɑːt ˌmʌsl] – сердечная мышца
heart rate ['hɑːt reɪt] – частота сердечных сокращений
heart sound ['hɑːt saund] – тон сердца
heart surface ['hɑːt ˌsɜːfɪs] – поверхность сердца
hemorrhage ['hem(ə)rɪʤ] – кровотечение
hemorrhagic stroke [ˌheməræjik 'strəuk] – геморрагический инсульт
hypertension (high blood pressure) [ˌhaɪpə'tenʃən] – гипертензия
hypertensive crisis [ˌhaɪpətensɪv 'kraɪsɪs] – гипертонический криз
hypotension (low blood pressure) [ˌhaɪpəu'tenʃən] – гипотензия
impairment [ɪm'peəmənt] – нарушение
ischemic stroke [ˌɪskiːmɪk 'strəuk] – ишемический инсульт
kidney disease ['kɪdnɪ dɪˌziːz] – заболевание почек
left atrium [left 'eɪtrɪəm] **–** левое предсердие
left ventricle [left 'ventrɪkl] – левый желудочек
loss of consciousness [ˌlɔs əf 'kɔnʃəsnəs]– потеря сознания
measure (take) blood pressure [ˌmeʒə 'blʌdˌpreʃə] – измерять АД
myocardial infarction [maɪəuˌkɑːdɪəl ɪn'fɑːkʃən] – инфаркт миокарда
myocardial ischemia [maɪəuˌkɑːdɪəl ɪ'skiːmɪə] – ишемия миокарда
myocarditis [ˌmaɪəukɑː'daɪtɪs] **–** миокардит
myocardium [ˌmaɪəu'kɑːdɪəm] **–** миокард
obstruction [əb'strʌkʃən] – обструкция, сужение
oxygen consumption ['ɔksɪʤən kənˌsʌmpʃən] – потребление кислорода
oxygen demand ['ɔksɪʤən dɪˌmɑːnd] – потребность в кислороде
oxygen supply ['ɔksɪʤən səˌplaɪ] – снабжение кислородом
oxygenated blood ['ɔksɪʤəneɪtɪd blʌd] **–** кровь, насыщенная кислородом
palpitation [ˌpælpɪ'teɪʃ(ə)n] – сердцебиение
paralysis [pə'rælәsɪs] – паралич
prevent [prɪ'vent] – профилактировать, предохранять
primary hypertension [ˌpraɪmərɪ ˌhaɪpə'tenʃən] – первичная гипертензия
pulmonary artery [ˌpʌlmən(ə)rɪ 'ɑːtərɪ] – легочный ствол
pulmonary vein [ˌpʌlmən(ə)rɪ veɪn] – легочная вена
pulmonic circulation [pʌlˌmɔnɪk ˌsɜːkjə'leɪʃ(ə)n] **–** малый круг кровообращения
pulse [pʌls] – пульс
pulse pressure ['pʌls ˌpreʃə] – пульсовое давление

pulse rate ['pʌls reɪt] – частота пульса
pump [pʌmp] – выбрасывать (кровь)
Purkinje fibers [pəˌkɪndʒi faɪbəz] – волокна Пуркинье
radiate ['reɪdieɪt] – иррадировать, отдавать
receive [rɪ'si:v] – принимать (кровь)
reduce [rɪ'dju:s] – снижать
reduction [rɪ'dʌkʃən] – снижение
relieve [rɪ'li:v] – успокаивать или ослаблять (боль)
renal failure [ˌri:n(ə)l 'feɪljə] – почечная недостаточность
right atrium [ˌraɪt 'eɪtrɪəm] – правое предсердие
right ventricle [ˌraɪt 'ventrɪkl] – правый желудочек
secondary hypertension [ˌsekənd(ə)rɪ ˌhaɪpə'tenʃən] – вторичная гипертензия
semilunar valve [ˌsemiˌlu:nə 'vælv] – полулунный клапан
septum ['septəm] – перегородка
sinoatrial node [ˌsaɪnəʊ'eɪtrɪəl nəud] – синоатриальный узел
stroke [strəuk] – инсульт
systemic circulation [sɪsˌtimɪk ˌsɜ:kjə'leɪʃ(ə)n] – большой круг кровообращения
systolic blood pressure [sɪˌstɔlɪk 'blʌd ˌpreʃə] – систолическое давление крови
tachycardia [ˌtækɪ'kɑ:dɪə] – тахикардия
thrombosis [θrɔm'bəusɪs] – тромбоз
tinnitus ['tɪnɪtəs] – звон в ушах
transport [træn'spɔ:t] – транспортировать, переносить (кровь, вещество)
treat [tri:t] – лечить
treatment ['tri:tmənt] – лечение
tricuspid (right atrioventricular) valve [trʌɪ'kʌspɪd vælv] – трехстворчатый клапан
vasoconstriction [ˌveɪzəʊkən'strɪkʃən] – сужение сосудов
vasodilation [ˌveɪzəʊdaɪ'leɪʃən] – расширение сосудов
vein [veɪn] – вена
vena cava inferior [ˌvi:nə 'keɪvə ɪnˌfɪərɪə] – нижняя полая вена
vena cava superior [ˌvi:nə 'keɪvə su:ˌpɪərɪə] – верхняя полая вена
venule ['venju:l] – венула
vessel ['ves(ə)l] – сосуд
visual disturbance [ˌvɪʒuəl dɪ'stɜ:bəns] – нарушение зрения
weakness ['wi:knəs] – слабость

UNIT II. RESPIRATORY DISEASES

1. Anatomy and physiology of the respiratory system

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. respiration
   respiratory
   respiratory process
   respiratory tract
   upper respiratory tract
   lower respiratory tract
2. bronchus – bronchi
   mainstem bronchi
   right mainstem bronchus
   left mainstem bronchus
   secondary bronchi
   lobular bronchi
   bronchial
   tracheobronchial tree
3. alveolus – alveoli
   alveolar duct
   alveolar sac
   alveolar mucosa
   alveolar membrane
4. bronchiole
   terminal bronchiole
   respiratory bronchiole
5. pleura
   visceral pleura
   parietal pleura
   pleural cavity

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What do you know about the respiratory system? What main parts does it consist of? What's its role in the body?

Task 3. Read the text and answer the questions.

Structurally the respiratory system consists of the upper and lower respiratory tracts. The upper respiratory tract includes the nose, sinuses, the pharynx, the larynx, and the epiglottis. The lower respiratory tract

includes the trachea, two mainstem bronchi, the bronchioles, alveolar ducts and alveoli.

The nose humidifies, warms, and filters inspired air. Sinuses are air-filled cavities within the hollow bones that surround the nasal passages. They provide resonance during speech. Pharynx is a passageway for both the respiratory and digestive tracts. It is divided into nasopharynx, oropharynx, and laryngopharynx. Larynx is commonly called the voice box. It contains two parts of vocal cords, the false and true cords. The epiglottis is a leaf-shaped elastic structure that is attached along one end to the top of the larynx. It prevents food from entering the tracheobronchial tree by closing over the glottis during swallowing.

The trachea is located in front of the esophagus and branches into the right and the left mainstem bronchi. The right bronchus is slightly wider, shorter, and more vertical than the left bronchus. The mainstem bronchi divide into five secondary or lobar bronchi that enter each of the five lobes of the lung. The bronchi are lined with cilia, which propel mucus up and away from the lower airway to the trachea. In the trachea mucus can be expectorated or swallowed.

Bronchioles branch from the secondary bronchi and subdivide into the small terminal and respiratory bronchioles. Acinus is a term used to indicate all the structures distal to terminal bronchiole. Alveolar ducts branch from the respiratory bronchioles. Alveolar sacs, which arise from the ducts, contain clusters of alveoli, which are the basic units of gas exchange. Cells in the walls of the alveoli secrete surfactant, a phospholipid protein that reduces the surface tension in the alveoli. Without surfactant, the alveoli would collapse.

The lungs are located in the pleural cavity in the thorax. The right lung, which is larger than the left one, is divided into three lobes – the upper, middle, and lower lobe. The left lung, which is narrower than the right lung, is divided into two lobes. The lungs are covered with pleura.

The parietal pleura lines the inside of the thoracic cavity, including the upper surface of the diaphragm. The visceral pleura covers the pulmonary surfaces. A thin fluid layer, which is produced by the cells, lining the pleura, lubricates the visceral pleura and the parietal pleura. This fluid allows the two layers to glide smoothly and painlessly during respiration.

The respiratory process consists of the phases: inspiration and expiration. During inspiration the diaphragm descends into the abdominal cavity, causing negative pressure in the lungs. The negative pressure draws air from the area of greater pressure, the atmosphere, to the area of lesser pressure, the lungs. In the lungs, air passes through the terminal bronchioles into the alveoli to oxygenate the body tissues. At the end of inspiration, the diaphragm and intercostal muscles relax and the lungs expand. As the lungs expand, the pressure within the lungs becomes greater than the atmospheric pressure, and the air, which contains the cellular waste products of carbon dioxide and water, moves from the alveoli in the lungs to the atmospheric pressure. Expiration is a passive process.

The respiratory system has primary and secondary functions. As for primary function, it provides oxygen for metabolism in the tissues and removes carbon dioxide, the waste products of metabolism. Besides, the respiratory system facilitates smell, produces speech, maintains acid-base balance, body water levels, and heat balance.

1. What does the upper respiratory tract consist of?
2. What are the main parts of the lower respiratory tract?
3. What is the structure of the bronchial tree?
4. How many lobes are there in the right and left lungs?
5. What are the two types of pleura?
6. What do you call the fluid between the two layers of the pleura and what is it for?

7. Describe phases of the respiratory process.

8. What are the primary and secondary functions of the respiratory system?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. The right lung consists of three lobes.
2. The left main bronchus is shorter and wider than the right one.
3. There is a thin fluid layer between the visceral pleura and the parietal pleura.
4. The secondary function of the respiratory system is the process of respiration.
5. Inspiration is a passive process.

- ***GRAMMAR***

Task 5. Make comparatives and superlatives of the following adjectives and adverbs.

Adjective	Comparative	Superlative
short	shorter	the shortest
thick		
great		
narrow		
wide	wider	the widest
large		
thin	thinner	the thinnest
red		
easy	easier	the easiest
busy		
important	more important	the most important
vertical		

good		
bad		
far	further	
many / much	more	the most
few / little	less	the least

- ***WORD-BUILDING***

Task 6. Complete the table with an appropriate noun or a verb. Find all the synonyms in the text.

Verb	Noun	Synonyms
breathe		
inhale		breathe in
	exhalation	breathe out
–	inspiration	
	expiration	
aspirate		
expectorate		
	coughing	

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Example 1. A: How do you say *доля легкого* in English?

B: It's *lobe of the lung.*

Example 2. A: What does *respiration* mean?

B: It means *дыхание*.

Task 8. Complete the sentences.

1. The respiratory system consists of …
2. The upper respiratory tract includes …

3. The lower respiratory tract includes …
4. There are two lungs: …
5. The lungs are located in …
6. There are two layers of the pleura: …
7. The visceral pleura lines …
8. The parietal pleura lines …
9. The respiratory process consists of …
10. The primary function of the respiratory system is … and its secondary function is …

Task 9. Discuss any information you know about the topic with a partner.

2. **Influenza**

- *VOCABULARY and PRONUNCIATION*

Task 1. Read out.

1. respiratory
   respiratory system
   respiratory rate
   respiratory illness
   respiratory infection

2. virus – viruses
   virus disease
   virus infection
   viral antigen
   viral particle
   antiviral drug
   antiviral antibody

3. flu
   flu attack
   flu outbreak
   influenza virus
   influenza virus infection
   influenza vaccine
   influenza vaccination

- ***READING and SPEAKING***

Task 2. What kind of disease is influenza? Is it dangerous? Do all people susceptible to this virus?

Task 3. Read the text and answer the questions.

Influenza is a very common disease, especially during the flu season (from October to April). It is caused by viruses that infect the respiratory tract.

Influenza viruses – cause the outbreaks and epidemics of respiratory illness. These viruses are very unusual because they are always changing. A series of changes is called “antigenic drift”. It is an abrupt change that results in new forms (subtypes) of the virus. Antigenic drift occurs only occasionally. When it occurs, large numbers of people, and sometimes the entire population, are without protective immunity. This can result in a catastrophic worldwide epidemic, called a pandemic, such as those that occurred in 1918, 1957 and 1968.

Influenza viruses spread through the air, mostly when an infected person sneezes, coughs, and speaks. Typical symptoms are abrupt fever, muscle and bone aches, tiredness, cough, sore throat, running nose, and headache. It lasts longer than most other common respiratory infections, often for a week or more. Symptoms typically appear 1-5 days after the infection.

Anyone can get influenza, but the risk of complications is the highest among persons who are older 65, adults and children with disorders of the lungs or heart, including asthma, diabetes, kidney diseases or immune system problems. Pregnant women and health-care workers are also at risk.

Most people usually recover in 1 to 2 weeks. However, some people develop serious complications such as pneumonia.

Unfortunately, there is no cure for influenza. Rest and a lot of liquids are the main treatment. If necessary, the patient may be advised to take paracetamol to relieve fever and muscle aches. Since influenza is caused by virus, antibiotics have no effect against the infection. The antiviral drugs may prevent or reduce the severity of influenza.

It is thought that one of the ways to prevent influenza is to get a yearly flu vaccination. It is recommended for children, chronically ill persons, and the elderly. The best time to get a flu shot is between October and mid – November.

1. What is an infectious agent that causes influenza?
2. How do people get influenza?
3. What are the symptoms of influenza?
4. How soon after the exposure do symptoms appear?
5. Who is at risk for influenza?
6. What complications can result from influenza?
7. What is the treatment for influenza?
8. How can influenza be prevented?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. There are several subtypes of the influenza virus.
2. The influenza virus spreads through water and direct contact.
3. Elderly patients are at lower risk for influenza.
4. There is some treatment but no cure against influenza.
5. Vaccination is obligatory for all people.

- ***GRAMMAR***

Task 5. Circle the right verb.

1. Influenza *is / are* a very common disease.

2. These viruses *is / are* very unusual because they *is / are* always changing.

3. Antigenic drift *occur / occurs* occasionally.

4. Influenza virus *spread / spreads* through the air mostly when an infected person *sneeze / sneezes*, *cough / coughs*, and *speak / speaks*.

5. Typical symptoms *is / are* abrupt fever, muscle and bone aches, tiredness, cough, sore throat, running nose, and headache.

6. It *last / lasts* longer than most other common respiratory infections, often for a week or more.

7. Symptoms typically *appear / appears* 1-5 days after the infection.

8. Most people usually *recover / recovers* in 1 to 2 weeks.

9. However, some people develop / develops serious complications such as pneumonia.

10. Unfortunately, there *is / are* no cure for influenza.

- ***WORD-BUILDING***

Task 6. Form adjectives from the given words with the help of suffixes and complete the table.

-ic	antigen, metal, psyche	antigenic
-al	virus, emotion, practice, intestine, artery	
-ar	lobe, alveolus, lobule	
-y	stuff, wind, noise	
-ive (-tive, -ative)	create, cure, operate, reconstruct	

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Influenza is …
2. It is caused by …
3. It is transmitted through …
4. The patients at risk are …
5. This disease is characterized by …
6. The patient experiences such symptoms as …
7. The main complications of influenza are …
8. The diagnostic methods include …
9. The treatment of influenza is aimed at …
10. Preventive measures are the following …

Task 9. Discuss any information you know about the topic with a partner.

3. **Pneumonia**

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. pulmonology
   pulmonologist
   pulmonary
   pulmonary infection
   pulmonary disease

2. breathe
   breathe in / out
   breathing technique
   breathless
   breathlessness

3. pleura
   pleural sac
   pleural fluid
   pleural effusion
   pleuritic pain

4. pneumonia
   lobal pneumonia
   severe pneumonia
   hospital pneumonia
   community acquired pneumonia

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What is pneumonia? What group of people can easily get pneumonia? Can it be treated at home?

Task 3. Read the text and answer the questions.

Pneumonia is an infection of the pulmonary tissue. It affects one or both lungs and is usually caused by bacteria, viruses, or fungi. Prior to discovery of antibiotics, one-third of the people who developed pneumonia subsequently died from the infection.

Pneumonia can be community acquired or hospital acquired. Some cases of pneumonia are contracted by breathing in small droplets that contain the organisms causing pneumonia. These droplets get into the air when an infected person coughs and sneezes. In other cases, pneumonia is caused when bacteria or viruses that are normally present in the mouth, throat, or nose accidentally enter the lungs.

During sleep it is quite common for people to aspirate secretions from the mouth, throat, or nose. The body's reflex response (coughing back up the secretions) and immune system will normally prevent the aspirated organisms from causing pneumonia. However, if a person is in a weakened condition from another illness, a severe pneumonia can develop. People with recent viral infections, lung disease, heart disease, and swallowing problems, as well as alcoholics, drug users, and those who have suffered from stroke or seizure are at higher risk for developing pneumonia than the general population.

Once organisms enter the lungs, they usually settle in the air sacs of the lung where they rapidly grow in number. This area of the lung then becomes filled with fluid and pus as the body attempts to fight off infection.

Most people with pneumonia initially have symptoms of a cold, which are then followed by high fever, chills, and cough with sputum production. The sputum is usually discoloured and sometimes bloody. Patients may become short of breath. Chest pain may develop if the outer aspects of the lung are involved. The pain is usually sharp and worsens when taking a deep breath, known as a pleuritic pain.

Children and babies who develop pneumonia often don’t have any specific signs of a chest infection, but develop a fever, appear quite ill, and can become lethargic. Elderly people may also have few symptoms of pneumonia.

The compulsory method of making a diagnosis is chest X-ray. The chest X-ray presents diffuse patches throughout the lungs or consolidation in the lobe. A sputum culture helps to identify a causative organism. A complete blood cell count should be done. It reveals that white blood cells and erythrocyte sedimentation rate are elevated.

The patient should keep high-calorie, high-protein diet with small frequent meals. The treatment includes antibiotics, bronchodilators, and mucolitic agents.

1. What are the causative agents of pneumonia?
2. Describe the ways of contracting this infection.
3. What is a pathological mechanism of developing pneumonia?
4. What patients are affected more often and why?
5. List common symptoms of pneumonia.
6. Tell us about clinical symptoms of pneumonia in children and babies.
7. What diagnostic methods do you know?
8. What preparations are used to treat pneumonia?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Pneumonia is an infection of the upper respiratory tract.
2. Its causative agents are usually viruses and bacteria.
3. Pneumonia is always a hospital acquired infection.
4. Elderly people may have insignificant symptoms of infection.
5. Chest X-ray is necessary to make a diagnosis of pneumonia.

- ***GRAMMAR***

Task 5. Put adverbs of frequency given in brackets into each sentence.

1. Pneumonia is caused by bacteria, viruses, or fungi. *(usually)*
2. The body's reflex response will prevent the aspirated organisms from causing pneumonia. *(normally)*
3. Microorganisms settle in the air sacs of the lung where they grow in number. *(usually, rapidly)*
4. Most people with pneumonia have symptoms of a cold. *(initially)*
5. The pain is sharp and worsens when taking a deep breath. *(usually)*

- ***WORD-BUILDING***

Task 6. Form adjectives from the given words with the help of suffixes and complete the table.

-ful	pain, help, care, use	painful
-less	pain, use, care, help	
-able	change, understand, comfort, suit	
-y	health, salt, guilt, risk	

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Retell the text using the format.

1. Pneumonia is …
2. It is caused by …
3. It is transmitted through …
4. The patients at risk are …
5. This disease is characterized by …
6. The patient experiences such symptoms as …
7. The main complications of pneumonia are …
8. The diagnostic methods include …
9. The treatment of pneumonia is aimed at …
10. Preventive measures are the following …

Task 9. Discuss with a partner any information you know about the topic.

4. **Bronchial asthma**

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. bronchus – bronchi
   bronchitis
   acute bronchitis
   chronic bronchitis
   bronchial asthma

2. disease
   pulmonary disease
   obstructive pulmonary disease
   chronic obstructive pulmonary disease (COPD)
   restrictive pulmonary disease

3. asthma
   severe asthma
   asthmatic attack
   acute asthmatic attack
   antiasthmatic medication

4. allergy
   allergy to aspirin
   allergic
   allergic reaction
   allergic condition

5. dilate
   dilation
   bronchodilator
   bronchodilation
   vasodilation

6. constrict
   constriction
   bronchoconstrictor
   bronchoconstriction
   vasoconstriction

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What do you know about asthma? Is it a long-term suffering? Why the incidence of bronchial asthma is constantly growing?

Task 3. Read the text and answer the questions.

Asthma is an obstructive disease of the lower respiratory tract and one of the most common chronic respiratory diseases in children. In

younger children it affects twice as many boys than girls. Asthma is often caused by an allergic reaction to an environmental allergen, may be seasonal or year round. The allergic condition may lead to bronchospasm. When there is a little response to the treatment, this condition transfers into status asthmaticus.

According to the severity of the disease, it could be classified as mild, moderate, and severe. During an asthmatic attack, the patient suffers from agony: he pants, wheezes, coughs and expectorates. This reaction occurs because oxygen cannot pass through the constricted air passage. Constriction results from swelling, sputum production and bronchospasm itself.

Such attacks alternate with symptom-free periods. Practically any factor can trigger an attack: hot, cold, wet weather, pollen or dust. That is why many patients get an attack when they go to bed. In this case, attack is triggered by the dust from the pillow. Sunshine, cold water for bathing or drinking, excessive exercises, flowers, some fruit and vegetables may be taboo. It is also known about asthma caused by aspirin intake.

In severe asthma the body becomes weak, unable to withstand any kind of exertion. Even taking a rest or sleeping becomes impossible and the nights are spent in sitting or semisitting position because of breathing difficulties.

There are plenty of drugs for asthma such as bronchodilators, glucocorticosteroids, and other modern drugs. These medications usually give only temporary relief, if at all. After taking a drug the constricted air passages are dilated, but once the effect of the drug wanes, the attack starts again. Thus, it becomes a life-long suffering.

Asthma is not a disease that can be cured because it is a pathological reaction of the body to certain foreign matters. So, the treatment should be aimed at strengthening of the respiratory system. Experiments conducted

by many institutes have shown that yoga might help those with prolonged history of asthma.

1. How can asthma be classified?
2. List the mechanisms of bronchoconstriction.
3. What is the position of an asthmatic patient at night?
4. Why do these attacks occur?
5. What may trigger asthma attacks?
6. What may relieve asthma attacks?
7. What antiasthmatic drugs do you know?
8. What is to be used as a very effective treatment for patients with prolonged history of asthma?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Asthma is an allergic disease.
2. The main mechanism of asthmatic attack is bronchodilation.
3. Aspirin intake may cause severe asthmatic attack.
4. Asthma may be treated with bronchodilators and corticosteroids.
5. Yoga might help some people with asthma if practiced regularly.

- ***GRAMMAR***

Task 5. Find some verb patterns underlined in the text and complete the table on your own.

Subject	Verb (Passive)	Preposition	
The disease	is characterized	by	exarcebation and remission periods
Asthma			
Attack			
Treatment	is prescribed		

- ***WORD-BUILDING***

Task 6. Complete the table with suitable words.

Noun	Adjective	Example (Noun + Adj)
allergy	allergic	allergic reaction
bronchus		
	obstructive	
restriction		
	asthmatic	
respiration		
pathology		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Bronchial asthma is …
2. It is caused by …
3. The main forms of bronchial asthma are …
4. The patients at risk are …
5. This disease is characterized by …
6. The patient experiences such symptoms as …
7. The complications of bronchial asthma are …
8. The diagnostic methods include …
9. The treatment of bronchial asthma is aimed at …
10. Preventive measures are the following …

Task 9. Discuss any information you know about the topic with a partner.

Check your vocabulary

acid-base balance [ˌæsɪd 'beɪs ˌbæləns] – кислотно-основное состояние
acinus ['æsɪnəs] – ацинус (легочный мешочек)
acute bronchitis [əˌkju:t brɔŋ'kaɪtɪs] – острый бронхит
alveolar duct [ˌælvɪ'əulə dʌkt] – альвеолярный проток
alveolar sac [ˌælvɪ'əulə sæk] – альвеолярный мешочек
alveolus [ˌælvɪ'əuləs] **(Pl**: **alveoli)** – альвеола
asthmatic attack [æsˌmætɪk ə'tæk] – приступ астмы
bacterium [bæk'tɪərɪəm] **(Pl: bacteria)** – бактерия
branch [brɑ:nʧ] – ветвь, делиться
breath [breθ] **(breathing)** ['bri:ðɪŋ] – дыхание
breathe [bri:ð] – дышать
breathlessness ['breθəsnəs] – одышка, диспноэ
bronchial asthma [ˌbrɔŋkɪəl 'æsmə] – бронхиальная астма
bronchiole ['brɔŋkɪəul] – бронхиола
bronchodilator [ˌbrɒŋkəʊdaɪ'leɪtə] – бронходилятатор, препарат, расширяющий бронхи
bronchospasm ['broŋkəʊspæz(ə)m] – бронхоспазм
bronchus ['brɔŋkəs] **(Pl: bronchi)** – бронх
carbon dioxide [ˌkɑ:bən daɪ'ɔksaɪd] – углекислый газ
chest X-ray ['ʧest ˌeksreɪ] – рентген грудной клетки
chill [ʧɪl] – озноб
chronic bronchitis [ˌkrɔnɪk brɔŋ'kaɪtɪs] – хронический бронхит
chronic obstructive pulmonary disease [ˌkrɔnɪk əbˌstrʌktɪv 'pʌlmən(ə)rɪ dɪˌzi:z] – хроническое обструктивное заболевание легких
cilium ['sɪlɪəm] **(Pl: cilia)** – ресничка(и)
cold [kəuld] – простуда
complete blood cell count [kəmˌpli:t 'blʌd sel kaunt] – общий анализ крови
constrict [kən'strɪkt] – сужать(ся)
constriction [kən'strɪkʃən] – сужение
contract ['kɔntrækt] – 1. заболеть; сокращать(ся)
cough [kɔf] – кашель, кашлять
cure [kjuə] – излечивать
diaphragm ['daɪəfræm] – диафрагма

dilate [daɪ'leɪt] – расширять(ся)
dilation (dilatation) [daɪ'leɪʃ(ə)n] – расширение
enter ['entə] – попадать, проникать
epiglottis [ˌepɪ'glɔtɪs] – надгортанник
erythrocyte sedimentation rate [ˌɪrɪθrəusaɪt ˌsedɪmen'teɪʃ(ə)n reɪt] – скорость оседания эритроцитов
exhale [eks'heɪl] **(breathe out)** – делать выдох
expand [ɪk'spænd] – расправлять(ся)
expectorate [ɪk'spektəreɪt] – отхаркивать, откашливать (мокроту)
expiration [ˌekspə'reɪʃ(ə)n] – выдох
false cords [ˌfɔ:ls 'kɔ:dz] – ложные голосовые связки
fever ['fi:və] – лихорадка
filter ['fɪltə] – очищать
flu [flu:] **(influenza)** [ˌɪnflu'enzə] – грипп
gas exchange [ˌgæs 'ɪks'ʧeɪnʤ] – газообмен
get infection – приобрести инфекцию, заразиться
glottis ['glɔtɪs] – голосовая щель
humidify [hju:'mɪdɪfaɪ] – увлажнять
inhale [ɪn'heɪl] **(breathe in)** – делать вдох
inspiration [ˌɪnsp(ə)'reɪʃ(ə)n] – вдох
intercostal muscle [ˌɪntəˌkɔst(ə)l 'mʌsl] – межреберная мышца
larynx ['lærɪŋks] – гортань
left main bronchus [left meɪn 'brɔŋkəs] – левый главный бронх
lobe [ləub] – доля
lobar bronchus [ˌləʊbə 'brɔŋkəs] – долевой бронх
lower airway [ˌləuə 'eəweɪ] – нижние дыхательные пути
lower lobe [ˌləuə 'ləub] – нижняя доля
lower respiratory tract [ˌləuə rɪ'spɪrət(ə)rɪ ˌtrækt] **(lower airway)** – нижние дыхательные пути
lubricate ['lu:brɪkeɪt] – смазывать
lung [lʌŋ] – легкое
middle lobe [ˌmɪdl 'ləub] – средняя доля
mild [maɪld] – легкий (о степени тяжести заболевания)
moderate ['mɔd(ə)rət] – средний (о степени тяжести заболевания)

mucolytic agent [ˌmju:kəʊˌlɪtɪk 'eɪʤənt] – муколитик, препарат, разжижающий мокроту

mucus ['mju:kəs] – слизь

nasal passage [ˌneɪz(ə)l 'pæsɪʤ] – носовой ход

nose [nəuz] – нос

oxygen ['ɔksɪʤən] – кислород

oxygenate ['ɔksɪʤəneɪt] – насыщать кислородом

oxygenation [ˌɔksɪʤə'neɪʃ(ə)n] – процесс насыщения кислородом

parietal pleura [pəˌraɪət(ə)l 'plʊərə] – париетальная плевра

pharynx ['færɪŋks] – глотка

phlegm [flem] **(spit)** – мокрота

pleural cavity [ˌplʊərəl 'kævətɪ] – плевральная полость

pneumonia [nju:'məunɪə] – пневмония

provide [prə'vaɪd] – обеспечивать

pulmonary tissue [ˌpʌlmən(ə)rɪ 'tɪsju:] – легочная ткань

relax [rɪ'læks] – расслаблять(ся)

relief [rɪ'li:f] – облегчение (состояния)

relieve [rɪ'li:v] – облегчать, ослаблять (боль)

remove [rɪ'mu:v] – удалять

respiration [ˌrespə'reɪʃ(ə)n] – дыхание

respiratory illness [rɪˌspɪrət(ə)rɪ 'ɪlnəs] – респираторное заболевание

respiratory infection [rɪˌspɪrət(ə)rɪ ɪn'fekʃən] – респираторная инфекция

respiratory process [rɪˌspɪrət(ə)rɪ 'prəuses] – дыхательный процесс

right main bronchus [raɪt meɪn 'brɔŋkəs] – правый главный бронх

running nose [ˌrʌnɪŋ 'nəuz] – насморк

secondary bronchus [ˌsekənd(ə)rɪ 'brɔŋkəs] **(lobar bronchus)** – бронх второго порядка (долевой)

secretion [sɪ'kri:ʃ(ə)n] – секрет

severe [sɪ'vɪə] – тяжелый (о степени тяжести заболевания)

severity [sɪ'verətɪ] – тяжесть

shortness of breath [ˌʃɔ:tnəs əv 'breθ] – одышка

sinus ['saɪnəs] – синус, пазуха

smell [smel] – обоняние, запах

sneeze [sni:z] – чихать

sore throat [sɔ: 'θrəut] – боль в горле

spit [spɪt] – мокрота
spread through ['spred θru:] – распространять(ся) через
sputum culture ['spju:təm ˌkʌlʧə] – посев мокроты
status asthmaticus [ˌsteɪtəs æs'mætɪkəs] – астматический статус
suffer from ['sʌfə frəm] – страдать от
surface ['sɜ:fɪs] – поверхность
surfactant [sə'faktənt] – сурфактант
swelling ['swelɪŋ] – отек
symptom-free period [ˌsɪmptəm fri: 'pɪərɪəd] – бессимптомный период
take a breath [ˌteɪk ə'breθ] – делать вдох
thoracic cavity [θɔ:ˌræsɪk 'kævətɪ] – грудная полость
thorax ['θɔ:ræks] – грудная клетка
tiredness ['taɪədnəs] – усталость
trachea [trə'ki:ə] – трахея
tracheobronchial tree [ˌtreɪ'kiəʊ 'brɔŋkɪəl tri:] – трахеобронхиальное дерево
treat [tri:t] – лечить
treatment ['tri:tmənt] – лечение
trigger ['trɪgə] – вызывать, служить пусковым механизмом
true cords [ˌtru: kɔ:dz] – истинные голосовые связки
tuberculosis [tju:ˌbɜ:kjʊ'ləʊsɪs] – туберкулез
upper lobe [ˌʌpə 'ləub] – верхняя доля
upper respiratory tract [ˌʌpə rɪ'spɪrət(ə)rɪ ˌtrækt] **(upper airway) –** верхние дыхательные пути
virus ['vaɪrəs] – вирус
visceral pleura [ˌvɪsərəl 'pluərə] – висцеральная плевра
vocal cords ['vəuk(ə) kɔ:dz] – голосовые связки
voice box ['vɔɪs bɔks] – голосовой аппарат
waste products [ˌweɪst 'prɔdʌkts] – продукты обмена
weakness ['wi:knəs] – слабость
wheeze [wi:z] – дышать с присвистом
white blood cell [ˌwaɪt 'blʌd ˌsel] – лейкоцит

Add some new words, synonyms and expressions if you need

UNIT III. GASTROINTESTINAL DISEASES

1. Anatomy and physiology of the gastrointestinal tract

- *VOCABULARY and PRONUNCIATION*

Task 1. Read out.

1. gland
   mucous gland
   endocrine gland
   exocrine gland
   secretory gland
   salivary gland
2. juice
   gastric juice
   intestinal juice
   pancreatic juice
3. colon
   ascending colon
   transverse colon
   descending colon
4. intestine
   small intestine
   large intestine
   intestinal juice
5. duct
   hepatic duct
   cystic duct
   common bile duct
6. digest
   digestion
   autodigestion
   digestive system

- *READING and SPEAKING*

Task 2 Warm-up discussion.

What are the main parts of the gastrointestinal tract? What functions of the gastrointestinal tract do you know?

Task 3. Read the text and answer the questions.

The gastrointestinal tract consists of the following parts: the oral cavity, the esophagus, the stomach, and the intestine. This system begins

from the oral cavity. Salivary glands open their ducts into the oral cavity and secrete saliva. Saliva contains the amylase enzyme that aids in digestion.

The second part is esophagus, a collapsible muscular tube of about 10 inches long. It carries food from the pharynx to the stomach.

The stomach contains the cardia, the fundus, the body, and the pylorus. Mucus glands are located in the mucosa of the stomach. They prevent autodigestion by providing an alkaline protective covering. The stomach has two sphincters: the lower esophageal (cardiac) sphincter and the pyloric sphincter. The cardiac sphincter prevents reflux of gastric contents into the esophagus. The pyloric sphincter regulates the rate of stomach empting into the small intestine. The secretory glands of the stomach produce hydrochloric acid. This acid kills microorganisms, breaks food into small particles, and provides a chemical environment that is required by the gastric enzymes.

The intestine is divided into the small intestine and the large intestine. The small intestine includes the duodenum, the jejunum, and the ileum. It produces intestinal juice enzymes to digest carbohydrates and proteins. The large intestine is approximately 5 feet long. It includes the cecum, the ascending colon, the transverse colon, the descending colon, the sigmoid, and the rectum. The function of the large intestine is to absorb water, eliminate wastes, manufacture some B vitamins and vitamin K.

The liver is the largest gland in the body, weighing 3 to 4 pounds. Hepatic ducts deliver bile to the gallbladder via the cystic duct and to the duodenum via the common bile duct. Gallbladder serves as a reservoir for storage and concentration of bile. It contracts to force bile into the duodenum during the digestion of fats.

The pancreas is an exocrine and endocrine gland. As an exocrine gland it secretes sodium bicarbonate to neutralize the acidity of the stomach contents as they enter the duodenum. Pancreatic juices contain

enzymes for digesting carbohydrates, fats, and, proteins. As an endocrine gland pancreas secretes insulin, produced by the islets of Langerhans. Insulin is secreted into the bloodstream and is important for carbohydrate metabolism.

The functions of the gastrointestinal system are process of food substances, absorption of the products of digestion into the blood, and excretion of unabsorbed materials. Gastrointestinal system also provides the environment for microorganisms to synthesize nutrients, such as vitamin K.

1. What parts and sphincters does the stomach contain?
2. What acid is produced by the secretary glands of the stomach and what for?
3. List the parts of the small intestine.
4. What is the function of the small intestine?
5. List the parts of the large intestine.
6. What is the function of the large intestine?
7. Describe the structure of the liver and its ducts.
8. What is the gallbladder function?
9. Differentiate between exocrine and endocrine functions of the pancreas.

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. The main function of the gastrointestinal system is digestion of food products.
2. The pyloric sphincter prevents reflux of the gastric contents into the intestine.
3. Hydrochloric acid is produced by the stomach glands.

4. In the large intestine water absorption and waste products elimination take place.

5. The pancreas is an endocrine gland of the body.

- ***GRAMMAR***

Task 5. Find verbs with prepositions underlined in the textand complete the table.

Subject	Verb + preposition	
The GI tract	consists of	the following parts …
The GI system		
Salivary glands		
Esophagus		
Gastric acid		
The intestine		
Gallbladder		
Insulin		

- ***WORD-BUILDING***

Task 6. Complete the table with suitable words.

Noun	Adjective	Example (Noun + Adj)
liver	hepatic	hepatic duct
gallbladder		
digestion		
pancreas		
	mucosal	
esophagus		
intestine		
	secretory	
	gastric	

saliva		
duodenum		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Example 1. A: How do you say *экзокринная железа* in English?

B: It's *exocrine gland.*

Example 2. A: What does *small intestine* mean?

B: It means *тонкий кишечник.*

Task 8. Complete the sentences.

1. The gastrointestinal tract consists of …
2. The process of digestion begins in …
3. The next part of the gastrointestinal tract is …
4. The stomach contains such parts as …
5. There are two sphincters of the stomach …
6. The intestine is divided into …
7. The small intestine is responsible for …
8. The large intestine is responsible for …
9. The hepatobiliary system includes …
10. The pancreas is …

Task 9. Discuss any information you know about the topic with a partner.

2. **Gastritis**

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. ulcer
   gastric ulcer
   duodenal ulcer
   benign ulcer
   malignant ulcer
2. gastric
   gastric mucosa
   gastric juice
   gastric cancer
   gastric byopsy
3. gastritis
   acute gastritis
   chronic gastritis
   hemorrhagic gastritis
4. gastroscopy
   gastrectomy
   gastrostomy
   colonoscopy
   colonectomy
   colonostomy

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

Why do you think gastritis is so widespread among people of different ages? What recommendations should we follow to decrease its incidence?

Task 3. Read the text and answer the questions.

Gastritis is an inflammation of the stomach or gastric mucosa. The word comes from the Greek *gastro*- meaning of the stomach and -*itis* meaning inflammation. This disease may persist acutely or chronically, depending on the cause.

Acute gastritis is caused by the ingestion of food contaminated with disease-causing microorganisms or food that is irritating or too highly seasoned, the overuse of aspirin or other nonsteroidal anti-inflammatory drugs, excessive alcohol intake, bile reflux, or radiation therapy.

Chronic gastritis is caused by benign or malignant ulcers or by the bacteria Helicobacter pylori; may also be caused by autoimmune diseases, dietary factors, medications, alcohol, smoking, or reflux.

Symptoms of gastritis can be related to the underlying cause. In acute gastritis, the patient complains of abdominal discomfort, anorexia, nausea, vomiting, and possibly hiccupping. Patients with chronic gastritis experience such symptoms as upper abdominal pain or discomfort, anorexia, nausea, vomiting, heartburn after eating, or sour taste in the mouth. The doctor should carefully monitor for signs of hemorrhagic gastritis like hematemesis, tachycardia, and hypotension.

In suspected cases, a doctor usually orders gastroscopy to determine gastritis and related conditions such as peptic ulcer and gastric cancer. It is always important that the doctor reviews a patient's history regarding medications, alcohol intake, smoking, and other factors that can be associated with gastritis. In some cases, the appearance of the stomach lining seen during gastroscopy is reliable in determining gastritis and the cause. However, the most reliable method is doing a biopsy during gastroscopy and checking for histological characteristics of gastritis and infection (Helicobacter infection).

The treatment usually consists of removing the irritant or the infection. Antibiotics (Clarithromycin, Amoxicillin), proton pump inhibitors and bismuth salts may be prescribed.

In cases of acute gastritis, foods and fluids should be withheld until symptoms subside, followed by clear liquids, and then solid food is introduced. The patient should avoid irritating foods, fluids, and other substances such as spicy and highly seasoned foods, caffeine, alcohol, and nicotine.

1. What are the causes of acute gastritis?
2. What are the main reasons of chronic gastritis?

3. Describe the symptoms of gastritis.
4. What method is the most reliable in making a diagnosis?
5. How to treat gastritis?
6. What is the purpose for prescribing antibiotics?
7. What are the other drugs that could be successfully prescribed?
8. What food is to be avoided in gastritis?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Gastritis is an inflammation of the intestinal mucosa.
2. Symptoms of gastritis are lower abdominal pain and diarrhea.
3. The doctor should ask the patient about dietary irregularities, medications, alcohol intake, smoking, stress and other factors.
4. Histological characteristics and determining Helicobacter pylori infection help confirm the diagnosis.
5. Spicy food is allowed for patients after relieving the symptoms.

- ***GRAMMAR***

Task 5. Find gerends in the text and complete the table.

Verb	Gerend	Translation
smoke	smoking	

- ***WORD-BUILDING***

Task 6. Form adverbs from the given adjectives.

Adjective	Adverb	Example (Adv+ Adj or Verb + Adv)
chronic	chronically	chronically ill
acute		
high		
careful		
usual		
initial		
normal		
frequent		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Gastritis is …
2. The main forms of gastritis are …
3. Acute gastritis is caused by …
4. Chronic gastritis is caused by …
5. The patient with acute gastritis experiences such symptoms as …
6. In chronic gastritis the patient complains of …
7. The diagnostic methods include …
8. The treatment of gastritis consists of …
9. Dietary changes that are necessary are …
10. Preventive measures are the following …

Task 9. Discuss with a partner any information you know about the topic.

3. **Appendicitis**

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. appendix
   appendicitis
   peritonitis
   appendiceal abcess
   appendectomy
2. bowel
   bowel sound
   increased bowel sound
   decreased bowel sound
3. right lower quadrant
   left lower quadrant
   right upper quadrant
   left upper quadrant
4. abdomen
   abdominal pain
   abdominal distension
   abdominal discomfort
   abdominal tenderness

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What is appendicitis? What is thought to be the cause of appendicitis? How is appedicitits treated?

Task 3. Read the text and answer the questions.

Appendicitis usually presents as an acute inflammation of the appendix. It can lead to perforation with subsequent peritonitis. The inflammation can be caused by an obstruction such as an indurated mass of feces, a foreign body in the lumen of the appendix, parasitic infection, fibrous disease of the bowel wall, or adhesions.

Appendicitis is usually seen in teenagers and young adults and found more frequently in males.

The most common representation of acute appendicitis is constant pain that develops in the right lower quadrant of the abdomen at McBurney's point. However, initially it usually begins as an intermittent

pain in the mid abdomen that subsequently localizes in the lower right quadrant. The patient tends to bend the knees in order to prevent tension of the abdominal muscles and decrease the pain. The pain of acute appendicitis is aggravated by walking and coughing.

The patient usually develops a low-grade fever, nausea, vomiting, elevated white blood count, rebound tenderness, decreased or absent bowel sounds, and rigid abdomen. Besides, the patient may have board-like rigidity of the abdomen.

The most common complication of appendicitis is peritonitis, inflammation of the peritoneum. When peritonitis begins, following the rupture of the appendix, the patient may have a sudden relief of the pain. The patient has increased fever and chills, progressive abdominal distention and abdominal pain, tachycardia, tachypnea, restlessness.

Another complication is appendiceal abscess. Abscess usually occurs 2-6 days after the onset of the disease. In this case, a tender mass in the lower right quadrant or pelvis will be palpated.

In elderly patients, the abdominal findings may be absent or unimpressive, until perforation of the appendix occurs. It may also be difficult to make a diagnosis in a pregnant woman or an obese.

Typical findings in acute appendicitis normally occur when the appendix occupies the iliac fossa. If the appendix extends over the pelvic brim, the abdominal signs may be minimal, with tenderness being elicited only on rectal examination. Patients with a retrocecal appendix may have poorly localized abdominal tenderness. If the appendix lies high and lateral, maximal tenderness may be present in the flank.

Treatment of appendicitis is appendectomy, surgical removal of the appendix.

1. What is the most common representation of acute appendicitis?
2. How do patients with appendicitis describe the pain?

3. List some objective and subjective symptoms the patient may complain of.

4. Describe peritonitis as a complication of appendicitis.

5. When examining a patient with peritonitis, what physical findings is the doctor likely to see?

6. When does appendiceal abscess usually occur?

7. What are the clinical findings in elderly patients?

8. How can a surgeon treat acute appendicitis?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Appendicitis is a chronic inflammation of the appendix.

2. Constant pain develops in the right upper quadrant of the abdomen at McBurney's point.

3. Appendicitis can be complicated by an inflammation of the peritoneal cavity.

4. In an elderly patient the symptoms of acute appendicitis are severe.

5. Conservative treatment is possible in some cases of appendicitis.

- ***GRAMMAR***

Task 5. Find Past Participles (Partciple II) in the text paying attention to their translation and give examples.

Verb	Past Participle	Example (P II + noun)
elevate	elevated	elevated WBC

- ***WORD-BUILDING***

Task 6. Complete the table with suitable words and give appropriate examples.

Verb	Noun	Example (Verb + Noun or Noun + Noun)
relieve		to relieve pain, pain relief
decrease		
	increase	
remove		
perforate		
obstruct		
	complication	
examine		
treat		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Appendicitis is …
2. It is caused by …
3. The patients at risk are …
4. This disease is characterized by …
5. The patient complains of …
6. Elderly patients experience such symptoms as …
7. The main complications of appendicitis are …
8. The symptoms of peritonitis include …
9. The diagnostic methods include …
10. The treatment of appendicitis is …

4. **Hepatitis**

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. gastritis
   pancreatitis
   cholestititis
   colitis
   hepatitis
   appendicitis

2. liver
   liver damage
   long-lasting liver damage
   liver cancer
   advanced liver cancer
   liver infection
   contagious liver infection

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What is the main causative agent of hepatitis? Is it a contagious disease? What ways of transmission do you know?

Task 3. Read the text and answer the questions.

Hepatitis is an inflammation of the liver caused by viruses, bacteria, exposure to medications, or hepatotoxins. Types of viral hepatitis are hepatitis A, hepatitis B, hepatitis C, hepatitis D, hepatitis E and hepatitis G.

Hepatitis A is a contagious liver disease caused by hepatitis A virus. It is commonly seen in autumn and early winter. Hepatitis A infection occurs worldwide. The disease is common in Africa, Asia, Central and South America. In Russia hepatitis A occurs in isolated cases and in outbreaks.

The ways of transmission include fecal-oral route and person-to-person contact. For this reason, virus is more easily spread in places with

poor sanitary conditions or in places where people are not careful about washing their hands.

Children infected with hepatitis A virus often have no symptoms. Most adults have symptoms that develop over several days. Symptoms include fever, tiredness, loss of appetite, nausea, vomiting, or stomachache. Also specific symptoms of hepatitis develop like dark or brown-coloured urine, lighter-coloured stool, and jaundice, i.e. yellowing of the skin and whites of the eyes. If symptoms occur, they usually last less than 2 months, although 10% to 15% of persons have prolonged or relapsing disease that can last up to 6 months.

Unlike other types of hepatitis, such as hepatitis B and hepatitis C, hepatitis A causes no long-lasting liver damage. Death from hepatitis A infection is rare.

There is no specific treatment for hepatitis A infection. People usually recover on their own after 2 or 3 weeks of bed rest. Having had the disease produces life-long protection against future hepatitis A virus infection.

Hepatitis A can be prevented if a patient is vaccinated. Vaccine provides long-term protection. The vaccine is licensed for use in persons 2 years of age and older. It must be given before exposure to virus. Two shots are needed for long-term protection.

Another type of hepatitis is hepatitis B. It is a contagious liver infection caused by hepatitis B virus. It is non-seasonal in nature and all age groups are affected.

Hepatitis B is easily spread by direct contact with the blood or body fluids of an infected person. For example, hepatitis B can be transmitted from an infected mother to her baby at birth, through unprotected sex with an infected person, by sharing equipment for injecting street drugs, and by occupational contact with blood in health-care settings. Hepatitis B is not spread through food or water or by casual contact.

People can have hepatitis B and spread the disease without knowing it. Sometimes, people who are infected with hepatitis B virus never recover fully from infection. They carry the virus and can infect others for the rest of their lives.

Many persons who are infected with hepatitis B virus have no symptoms. Others become ill with the following symptoms: loss of appetite, malaise, fatigue, pain in muscles, joints, or stomach, diarrhea, vomiting, jaundice,etc.

Most people clear the hepatitis B virus out of their organism completely in a few months. In some people, hepatitis B virus can cause chronic life-long liver infection. Chronic infection can lead to liver damage (cirrhosis), liver cancer, and death.

There is no cure for hepatitis B. Treatment includes rest and proper diet. Hepatitis B vaccine is the best protection against hepatitis B virus. The vaccine prevents both hepatitis B virus infection and the chronic disease related to hepatitis B. Three shots are needed for complete protection.

1. What types of hepatitis do you know?
2. What are the ways of hepatitis A transmission?
3. What are the methods of making a diagnosis of hepatitis A?
4. How can a doctor treat hepatitis A?
5. What are the ways of hepatitis B transmission?
6. Who is at risk for hepatitis B?
7. What are the complications of hepatitis A and B?
8. How can hepatitis A and B be prevented?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Hepatitis is a chronic inflammation of the liver.

2. Hepatitis is a noninfectious disease and cannot be transmitted from person to person.

3. Specific symptoms of hepatitis are brown urine, lighter-coloured stool and yellowish skin.

4. All types of viral hepatitis can be prevented by vaccination.

5. Hepatitis B and D are intestinal forms of hepatitis.

- ***GRAMMAR***

Task 5. Find Present Participles (P I) and Past Participles (P II) in the text and complete the table.

Verb	Participle in the text	P I or II	Translation	Example
grow	growing	P I	растущий	growing number
cause				
isolate				
colour				
prolong				
relapse				
last				
vaccinate				
infect				
protect				

- ***WORD-BUILDING***

Task 6. Complete the table with suitable words.

Verb	Noun	PII positive	PII negative
develop	development	developed	undeveloped
cause			–
vaccine			
protect			
infect			

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Retell the text using the format.

1. Viral hepatitis is …
2. It is caused by …
3. It is transmitted through …
4. The patients at risk are …
5. This disease is characterized by …
6. The patient experiences such symptoms as …
7. The main complications of hepatitis are …
8. The diagnostic methods include …
9. The treatment of hepatitis is aimed at …
10. Preventive measures are the following …

Task 9. Discuss any information you know about the topic with a partner.

Check your vocabulary

abdomen ['æbdəmen] – брюшная полость, живот
abdominal discomfort [æb¸dɔmɪn(ə)l dɪs'kʌmfət] – дискомфорт в области живота
abdominal distension [æb¸dɔmɪn(ə)l dɪ'stenʃ(ə)n] – вздутие живота
abdominal muscles [æb¸dɔmɪn(ə)l 'mʌslz] – мышцы живота
absorb [əb'zɔ:b] – абсорбировать
absorption [əb'zɔ:pʃən] – абсорбция, всасывание
acidity [ə'sɪdətɪ] – кислотность
acute gastritis [ə¸kju:t gæs'traɪtɪs] – острый гастрит
adhesion [əd'hi:ʒən] – спайка
aggravate ['ægrəveɪt] – усиливать
anorexia [¸ænə'reksɪə] – анорексия, отсутствие аппетита

appendectomy [ˌæpən'dektəmɪ] – аппендектомия, удаление аппендикса
appendiceal abscess [ˌæpəndɪsiəl 'æbsəs] – аппендикулярный абсцесс
appendicitis [əˌpendɪ'saɪtɪs] – аппендицит
appendix [ə'pendɪks] – червеобразный отросток
ascending colon [əˌsendɪŋ 'kəulən] – восходящая ободочная кишка
belching [belʧɪŋ] – отрыжка
benign ulcer [bɪˌnaɪn 'ʌlsə] – доброкачественная язва
bile [baɪl] – желчь
bile reflux ['baɪl ˌriːflʌks] – заброс желчи
bioscopy ['baɪɔpsɪ] – биопсия
board-like rigidity [bɔːdlaɪk rɪ'ʤɪdətɪ] – доскообразный (живот)
bowel ['bauəl] – кишечник
bowel sounds ['bauəl ˌsaundz] – кишечные шумы
bowel wall ['bauəl wɔːl] – стенка кишечника
break into [breɪk ɪnto] – расщеплять
carbohydrate [ˌkɑːbə'haɪdreɪt] – углевод
cecum ['siːkəm] – слепая кишка
cholecystitis [ˌkəulɪsɪs'taɪtɪs] – холецистит
chronic gastritis [ˌkrɔnɪk gæs'traɪtɪs] – хронический гастрит
cirrhosis [sɪ'rəusɪs] – цирроз
colitis [kɔ'laɪtɪs] – колит
common bile duct [ˌkɔmən 'baɪl dʌkt] – общий желчный проток
complication [ˌkɔmplɪ'keɪʃ(ə)n] – осложнение
constant pain [ˌkɔn(t)stənt 'peɪn] – постоянная боль
contagious [kən'teɪʤəs] – контагиозный, заразный
cystic duct ['sɪstɪk dʌkt] – пузырный проток
descending colon [dɪˌsendɪŋ 'kəulən] – нисходящая ободочная кишка
digest [daɪ'ʤest] – переваривать
digestion [daɪ'ʤesʧən] – переваривание, пищеварение
duodenal ulcer [ˌdjuːəuˌdiːn(ə)l 'ʌlsə] – язва двенадцатиперстной кишки
duodenum [ˌdjuːəu'diːnəm] – двенадцатиперстная кишка
eliminate [ɪ'lɪmɪneɪt] – удалять
endocrine gland ['endəukraɪn glænd] – эндокринная железа
enzyme ['enzaɪm] – фермент
esophagus [iː'sɔfəgəs] – пищевод

excretion [eks'kri:ʃ(ə)n] – экскреция, выделение
exocrine gland ['ɛksəkraɪn glænd] – экзокринная железа
fat [fæt] – жир
fatigue [fə'ti:g] – усталость, утомление
feces [fi:si:z**]** – кал
flank [flæŋk] – бок, боковая область
gallbladder ['gɔ:lˌblædə] – желчный пузырь
gastric cancer [ˌgæstrɪk] ['kæn(t)sə] – рак желудка
gastric mucosa ['gæstrɪk mju:ˌkəusə] – слизистая желудка
gastric ulcer [ˌgæstrɪk 'ʌlsə] – язва желудка
gastroscopy [gæ'strɔskəpi] – гастроскопия
heartburn ['hɑ:tbɜ:n] – изжога
hematemesis [ˌhēmə'teməsis] – рвота кровью
hemorrhagic gastritis [hemə¸rædʒɪk gæs'traɪtɪs] – геморрагический гастрит
hepatic duct [hɪˌpætɪk 'dʌkt] – печеночный проток
hepatitis [ˌhepə'taɪtɪs] – гепатит
hiccup ['hɪkʌp] – икота
hydrochloric acid [haɪdrəu'klɔ:rɪk 'æsɪd] – соляная кислота
ileum ['ɪlɪəm] – подвздошная кишка
iliac fossa [ˌɪlɪæk 'fɔsə] – подвздошная ямка
ingestion [ɪn'dʒestʃən] – употребление
insulin ['ɪnsjəlɪn] – инсулин
intermittent pain [ˌɪntəmɪt(ə)nt 'peɪn] – периодически возникающая боль
intestinal juice [ɪn'testɪn(ə)l dʒu:s] – кишечный сок
intestine [ɪn'testɪn] – кишечник
irritant ['ɪrɪt(ə)nt] – раздражитель, раздражающее вещество
irritating food [ˌɪrɪteɪtɪŋ 'fu:d] – раздражающая пища
islets of Langerhans [ˌaɪləts əv 'læŋəhæns] – островки Лангерганса
jaundice ['dʒɔ:ndɪs] – желтуха
jejunum [dʒɪ'dʒu:nəm] – тощая кишка
keep on a diet ['daɪət] – соблюдать диету
large intestine [lɑ:dʒ ɪn'testɪn] – толстый кишечник
liver ['lɪvə] – печень
liver cancer ['lɪvə ˌkænsə] – рак печени
liver damage ['lɪvə ˌdæmɪdʒ] – повреждение печени

localize ['ləukəlaɪz] – локализовать(ся)
loss of appetite [lɔs əv 'æpɪtaɪt] – потеря аппетита
malaise [mə'leɪz] – недомогание
malignant ulcer [mə¸lɪgnənt 'ʌlsə] – злокачественная язва
McBurney's point [mək¸bə:niz 'pɔɪnt] – точка Мак-Бурнея
mucus gland [¸mju:kəs 'glænd] – слизистая железа
nausea ['nɔ:sɪə] – тошнота
neutralize ['nju:trəlaɪz] – нейтрализовать
nutrient ['nju:trɪənt] – нутриет, питательное вещество
obstruction [əb'strʌkʃ(ə)n] – обструкция
oral cavity [¸ɔ:rəl 'kævətɪ] – полость рта
pancreas ['pæŋkrɪəs] – поджелудочная железа
pancreatitis [¸pæŋkrɪə'taɪtɪs] – панкреатит
pelvis ['pelvɪs] – таз
peptic ulcer [¸peptɪk 'ʌlsə] – пептическая язва
perforation [¸pɜ:fə'reɪʃ(ə)n] – перфорация
peritoneum [¸perɪtə'ni:əm] – брюшина
peritonitis [¸perɪtə'naɪtɪs] – перитонит
pharynx ['færɪŋks] – глотка
process ['prəuses] – 1. переваривание 2. переваривать
protein ['prəuti:n] – белок
pyloric sphincter [paɪ¸lɒrɪk 'sfɪŋktə] – пилорический сфинктер
pylorus [paɪ'lɔ:rəs] – пилорический отдел желудка
rectal examination[¸rekt(ə)l ɪg¸zæmɪ'neɪʃ(ə)n] – исследование прямой кишки
rectum ['rektəm] – прямая кишка
restlessness ['restləsnəs] – беспокойство
rigid abdomen [¸rɪʤɪd 'æbdəmen] – напряженный живот
rupture ['rʌpʧə] – разрыв
saliva [sə'laɪvə] – слюна
salivary gland ['sə'laɪv(ə)rɪ glænd] – слюнная железа
secrete [sɪ'kri:t] – секретировать
sigmoid ['sɪgmɔɪd] – сигмовидная кишка
small intestine [smɔ:l ɪn'testɪn] – тонкий кишечник
stomach ['stʌmək] – желудок
stomach contents ['stʌmək ¸kɔntents] – содержимое желудка

stomach empting ['stʌmək ˌemptɪŋ] – опорожнение желудка
stomach lining ['stʌmək ˌlaɪnɪŋ] – слизистая оболочка желудка
stomachache ['stʌməkeɪk] – боль в желудке
stool [stuːl] – стул
surgical removal [ˌsɜːʤɪk(ə)l rɪ'muːv(ə)l] – удаление хирургическим путем
synthesize ['sɪnθəsaɪz] – синтезировать
tenderness ['tendənəs] – болезненность
tension ['tɛnʃən] – напряжение
transverse colon [ˌtrænzvɜːs 'kəulɔn] – поперечная ободочная кишка
urine ['juərɪn] – моча
vomiting ['vɔmɪtɪŋ] – рвота
wastes [weɪsts] **(waste products)** – продукты обмена
withhold (withheld, withheld) [wɪθ'həuld] – воздерживаться

Add some new words, synonyms and expressions if you need

UNIT IV. INFECTIOUS DISEASES

1. Childhood infectious diseases

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. infection
   infectious disease
   infectious hepatitis
   childhood infectious disease

2. rash
   flat rash
   flat red rash
   scarlet fever rash
   eruption
   skin eruption

3. incubation period
   communicable period
   symptomatic period
   recovery period

4. poliomyelitis
   parotitis
   myocarditis
   arthrirtis
   meningitis
   enchephalitis

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What childhood infectious diseases do you know? How can we prevent theses diseases? Why these diseases were lethal in the previous century?

Task 3. Read the text and answer the questions.

There are many childhood infectious diseases including diphtheria, pertussis, measles, German measles, mumps, poliomyelitis, chicken pox, etc. These diseases are spread from person to person.

The stages of all these diseases are the incubation period, the period of communicability, the symptomatic period, and the recovery period. The incubation period is the time between exposure to disease outbreak.

During this time the child may be contagious. The period of communicability is the period when the organism can move from the host to another individual. The symptomatic period is when the patient's symptoms like fever, rash, swollen glands and others are evident. And the last one is the recovery period when all the symptoms are subsided and functions of organs are restored.

Diphtheria is a respiratory disease caused by bacteria. A characteristic sign and the most serious symptom is severe respiratory distress. Exotoxin produced by bacteria causes myocarditis and neurological problems.

Pertussis, also called whooping cough, is a bacterial respiratory disease. This disease is life-threatening in young children. Severe paroxysmal cough results in severe respiratory distress. Possible complications are seizures, pneumonia, encephalopathy, and death.

Measles is a viral infection producing fever, harsh cough, maculopapular rash, photophobia, and Koplic spots on buccal mucosa. Flat and red rash begins behind the ears, spreads to the face, trunk and extremities. Potential complications are pneumonia, otitis, and encephalitis. Health care is aimed at keeping room darkened and providing antipruritic measures.

German measles (rubella) is a viral infection causing low-grade temperature, headache, sore throat, lymphadenopathy, and pink maculopapular rash. It is a very mild disease. Flat red rash begins on the face and spreads to the rest of the body. No specific care is needed. Complications may include arthralgia or arthritis, especially if occurring in young adults. The greatest danger is if a pregnant woman contacts the disease because of possible serious congenital anomalies, especially in the first trimester.

Mumps, also called parotitis, is a viral infection causing swelling of the salivary glands with painful swallowing. The patient complains of

fever, headache, earache that worsens with chewing. Ice collar may help relieve discomfort. Orchitis as a complication is usually unilateral if disease occurs after puberty. The other complications associated with mumps are meningitis and encephalitis.

Poliomyelitis is a viral infection. 95% of infected patients have no symptoms. Virus multiplies in the gastrointestinal tract and enters the bloodstream to affect the central nervous system, resulting in the paralysis in less than 2% of the infected.

Chicken pox is the most communicable childhood disease, caused by varicella zoster virus. Rash starts on the trunk and spreads. The rash progresses from macules to vesicles, which then erupt and crust over. It is highly contagious from 2 days prior to rash to 6 days after rash erupts. The incubation period is 21 days. Once lesions have crusted, they are no longer contagious. Care is directed only at comfort measures.

Almost against all these diseases children receive vaccinations on schedule which can prevent them or, at least, decrease their severity.

1. What diseases are referred to childhood communicable diseases?
2. What are the main periods of communicable diseases?
3. Describe the incubation period of infectious diseases.
4. Describe the communicable period of infectious diseases.
5. What diseases are caused by bacteria?
6. What diseases are caused by viruses?
7. List the most common symptoms of infectious diseases.
8. What disease is dangerous for pregnant women and why?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Communicable diseases are spread from person to person.

2. The incubation period is the period when the symptoms are severe.

3. The child is contagious during the period of communicabity.

4. The recovery period is characterized by lack of any symptoms.

5. Vaccination is the only way of prevention of childhood infectious diseases.

- ***GRAMMAR***

Task 5. Match the colomns A, B and C to form the sentences.

A	B	C
Health care	are spread	whooping cough
Diphtheria exdotoxin	is caused	by bacteria
Pertussis	are subsided	fever, rash, swollen glands, etc
Infectious diseases	is characterized	by bacteria
Diphtheria	is directed	in the recovery period
Measles	is called	from person to person
All the symptoms	is produced	by a virus
The symptomatic period	is caused	at comfort measures

- ***WORD-BUILDING***

Task 6. Complete the table with suitable words.

Verb	Noun	Adjective
infect		
	diagnosis	
		protective
prevent		
	cure	
treat	therapeutic, medical	

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Example 1. A: How do you say *симптоматический период* in English?

B: It's *symptomatic period.*

Example 2. A: What does *communicable period* mean?

B: It means *заразный период заболевания*.

Task 8. Complete the sentences.

1. Childhood communicable diseases include …
2. The ways of transmission of these diseases are …
3. There are several stages of infectious diseases: …
4. The incubation period is …
5. The period of communicability is …
6. The symptomatic period is when …
7. The recovery period is characterized by …
8. Among viral infectious diseases we can name …
9. Bacterial infectious diseases include …
10. Well-known preventive measures are …

Task 9. Discuss any information you know about the topic with a partner.

2. Measles

- *VOCABULARY and PRONUNCIATION*

Task 1. Read out.

1. measles
   measles infection
   measles vacine
   epidemic of measles
   outbreak of measles
   catch measles

2. antigen
   antibody
   antibody formation
   ready-made antibodies
   antigen-antibody complex
   antigen-antibody reaction

- *READING and SPEAKING*

Task 2. Warm-up discussion.

Have you heard anything about measles infection? Do you know anyone who caught measles in childhood?

Task 3. Read the text and answer the questions.

Measles, also known as rubeola, is a very contagious respiratory infection that causes cold symptoms, fever, and a characteristic rash. It is caused by the measles virus. The virus usually spreads from person to person through coughs and sneezes, and through contact with shared drinking glasses, dirty hands that touched a runny nose. Once the virus enters the body, the infection spreads throughout the respiratory tract to the skin and other body organs.

A person with measles is contagious (can infect others) from one to two days before any symptoms begin (or 3 to 5 days before the rash) to four days after the rash appears.

Measles symptoms begin about 8 to 12 days after exposure to a contagious person. The first symptoms include cough, runny and stuffy

nose, general sick feeling (malaise), red eyes with tearing (conjunctivitis), and fever up to 105 degrees Fahrenheit.

The measles rash is usually characterized by pink or bright red spots that are not itchy. It typically begins at the hairline and behind the ears, then spreads downward to the neck, trunk, arms and legs, palms and soles. The rash begins to fade about four days later in the same order that appeared. The fading rash may leave behind a temporary brownish discoloration that clears 2 to 3 days later. Some patients also have enlarged lymph nodes (swollen glands), diarrhea, and vomiting. The symptoms of measles usually last about 10 days.

The measles can be prevented by the measles vaccine, which is usually given as part of the MMR (measles, mumps, rubella) combination vaccine. If a child has not been immunized against measles and has been exposed to the disease, the vaccine may provide protection when it is given within 72 hours after the exposure. If the exposure occurred between three and six days earlier, the child can receive an injection of immune globulin (IG). Immune globulin contains ready-made antibodies to protect against the measles virus and can prevent or at least minimize the symptoms of measles infection.

There is no specific treatment for measles. Measles symptoms are treated with acetaminophen (Tylenol) to reduce fever and relieve discomfort, bed rest, and a cool-mist humidifier to soothe respiratory passages and relieve cough. Aspirin shouldn't be used in children with measles because of the risk of Reye's syndrome. Children and adults who develop a middle ear infection or bacterial pneumonia are treated with antibiotics.

Some doctors prescribe high doses of vitamin A. Low levels of this vitamin have been found in children with severe cases of measles. In patients with weakened immune systems or who are severely ill with measles the antiviral medications have occasionally been used.

1. What is measles caused by?
2. Describe the contagious period of measles.
3. What are the symptoms of the disease?
4. How can the measles rash be characterized?
5. How does the disease begin?
6. How can measles be prevented?
7. Why do you think some doctors prescribe high dose of vitamin A?
8. What are the patients who develop middle ear infection treated with?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Measles is caused by bacteria.
2. Measles is a droplet infection.
3. The disease can be easily prevented.
4. Specific treatment includes antipyretics and anti-inflammatory drugs.
5. Pink or red rash is the first symptom of measles.

- ***GRAMMAR***

Task 5. Find verb patterns underlined in the text and complete the table.

Present Simple Passive

Subject	Verb	
Measles	is caused by	measles virus

Present Perfect Passive

Subject	Verb	
If a child	has not been immunized	

- ***WORD-BUILDING***

Task 6. Complete the table with suitable words.

Adjective	Verb	Participle II
large	enlarge	enlarged lymph nodes
rich		
weak	weaken	weakend immunity
short		
strength		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Measles is …
2. It is caused by …
3. The virus spreads through …
4. The contagious period is from … to …
5. The first symptoms include …
6. The measles rash is described as …
7. The disease can be prevented by …
8. Passive prevention includes …
9. The treatment consists of …

10. The most severe complications are …

Task 9. Discuss any information you know about the topic with a partner.

3. Chicken pox

- *VOCABULARY and PRONUNCIATION*

Task 1. Read out.

1. immunity
   protective immunity
   lifelong protective immunity
   natural immunity
   acquired immunity
2. immune system
   normal immune system
   weak immune system
   immune response
   normal immune response
   abnormal immune response
3. characteristic spot
   itchy rash
   skin lesion
   small blister
   red papules
   thin-walled clear vesicles
   crust – crust over

- *READING and SPEAKING*

Task 2. Warm-up discussion.

What is chiken pox? Have you had chicken pox infection? If yes, how old were you? Is it a children infection?

Task 3. Read the text and answer the questions.

Chicken pox is one of the childhood contagious infectious diseases. It is caused by the varicella-zoster virus.

Chicken pox has a 10-21 day incubation period and it is highly contagious through physical contact. A person with chicken pox is contagious from one to two days before the rash appears until all blisters have formed scabs. Following the primary infection, the patient usually has a lifelong protective immunity from further episodes of chicken pox.

There are two ways of transmission of the disease. Chicken pox spreads from person to person by direct contact with infected bodily fluids or contaminated objects, such as bedding or clothing. Also it can be transmitted through the air from an infected person's coughing or sneezing.

The clinical picture starts with flue-like symptoms. Some kids have fever, abdominal pain, sore throat, headache, or a vague sick feeling a day or two before the rash appears. These symptoms may last for a few days, and fever stays in the range of 37,7 – 38,8 ^{0}, though in rare cases it may be higher. Younger kids often have milder symptoms and fewer blisters than older children and adults.

Characteristic spots appear after the flue-like period in two or three waves. A red itchy rash usually appears first on the abdomen or back and face. It spreads to almost everywhere else on the body, including the scalp, mouth, nose, ears, and genitals. The chicken pox lesions (blisters) start as two to four millimeter red papules. Then thin-walled, clear vesicles develop on the top of the area of redness. After about 8 to 12 hours the fluid in the vesicles gets cloudy and the vesicles break leaving a crust. This fluid is highly contagious, but once the lesions crust over, it is not contagious any more. The crusts usually fall off after 7 days.

Typically, chicken pox is a mild illness, but can affect some infants, teens, adults, and people with weak immune system more severely. Some people can develop serious bacterial infections involving skin, lungs, bones, joints, and brain. Even kids with normal immune system can develop complications, most commonly a skin infection near the blisters.

Anyone who has had chicken pox as a child is at risk for developing shingles later in life, and up to 20% do. After the infection, varicella-zoster virus can remain inactive in the nerve cells and the spinal cord and reactive later as shingles. The symptoms of shingles are tingling, itching, or pain followed by rash with red bumps and blisters.

To keep the virus from spreading, if you are in close contact, wash your hands frequently, particularly before eating and after using the bathroom.

There is no treatment against chicken pox. Symptoms usually go away without treatment. An infected child should stay at home and rest until the symptoms are gone because this infection is very contagious. Patients with chicken pox can benefit from supportive therapy (e.g., intravenous fluids, medicines to control fever or pain) and antibiotics for any secondary bacterial infections that may occur.

1. Is chicken pox a contagious infectious disease?
2. How long is the incubation period of the disease?
3. How long is the contagious period of the disease?
4. What are the ways of disease transmission?
5. Describe chicken pox lesions.
6. What are the other symptoms apart from skin lesions?
7. How can secondary bacterial infection be prevented?
8. What is the treatment against chicken pox?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. There is no protection against such a highly contagious disease as chicken pox.
2. It is a common infection among elderly people.
3. The disease is spread only through direct contact.

4. A patient can experience flu-like symptoms.

5. A red itchy rash on the skin spreads from extremities to the rest of the body.

- ***GRAMMAR***

Task 5. Make comparatives and superlatives of the following adjectives and adverbs.

Adjective	Comparative	Superlative
young		
mild		
few		
old		
common		
commonly		
severe		
severely		
good		
bad		

- ***WORD-BUILDING***

Task 6. Made nouns from the following verbs and adjectives with help of suffexes -ness or -ing:

Sick – ……....., eat – ……..……, cough – ……...……, dark – ..……, sneeze – ……..…..…, weak – ……..……, faint – ……..., feel – ……, tingle – ……..., red – ……..., thick – ……..., swallow – …… .

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Chickenpox is …
2. It is spread through …
3. The incubation period is …
4. The contagious period is …
5. The symptoms include …
6. The rash is described as …
7. Flu-like symptoms are …
8. To prevent the infection a patient should …
9. The main complications of chicken pox are …
10. The treatment consists of …

Task 9. Discuss any information you know about the topic with a partner.

4.Diphtheria

- *VOCABULARY and PRONUNCIATION*

Task 1. Read out.

1. bacterium
   gram-positive bacterium
   gram-negative bacterium
   aerobic bacteria
   anaerobic bacteria
   facultatively anaerobic
2. contaminate
   contaminated articles
   uncontaminated articles
   contamination
   contamination control
   contamination prevention

- *READING and SPEAKING*

Task 2. Warm-up discussion.

Is diphtheria a dangerous disease nowadays? Can someone get diphtheria if not vaccinated?

Task 3. Read the text and answer the questions.

Diphtheria is an upper respiratory tract infection. It mainly affects the nose and throat. The causative agent is Corynebacterium diphtheriae, a facultatively anaerobic gram-positive bacterium. Bacteria form a pseudomembrane across the trachea causing respiratory distress; they also produce an exotoxin that causes myocarditis and neurological problems.

Children under 5 and adults over 60 years are particularly at risk for contracting the infection. Malnourished patients, people with immunodeficiency, children and adults who don't have up-to-date immunization are also at risk.

Diphtheria is a highly contagious disease. The source of the infection is a discharge from the mucous membrane of the nose and nasopharynx, skin, and other lesions of an infected person. It is transmitted by direct physical contact with infected person, carrier, or contaminated articles. It's easily passed from the infected person to others through sneezing, coughing, or even laughing.

The incubation period is from 2 to 5 days (the time it takes for a person to become infected after being exposed). The communicable period is variable until virulent bacilli are no longer present (three negative cultures), usually 2 weeks but as long as 4 weeks.

The onset of the disease is usually gradual. The symptoms include low-grade fever, malaise, sore throat and problems with swallowing. Patients may have such symptoms as foul-smelling, mucopurulent nasal discharge, grey membrane on the tonsils and pharynx. In 10% of cases, patients experience lymphadenitis (neck edema).

As the infection progresses, diphtheria toxin spreads through the bloodstream and can lead to potentially life-threatening complications. The patient may experience more generalized symptoms, such as listlessness, pallor, and fast heart rate. The person also may have difficulty in breathing

or swallowing, double vision, slurred speech and even signs of shock. The cardiovascular, renal and neurological systems are affected by the toxin. The long-term effects of the diphtheria toxin include cardiomyopathy and peripheral neuropathy.

The current diagnosis of diphtheria is based on both laboratory and clinical criteria. The laboratory criteria include isolation of Corynebacterium diphtheriae from a clinical specimen. The clinical criteria include upper respiratory tract illness with sore throat, low-grade fever, and adherent pseudomembrane on the tonsils, pharynx, and/or nose.

Children and adults with diphtheria are treated in a hospital. After a doctor confirms the diagnosis through a throat culture, an infected person receives a special antitoxin. Antitoxin is given to neutralize the diphtheria toxin already circulating in the body. Antibiotics (Erythromycin, Procaine penicillin G) are used to kill the remaining diphtheria bacteria.

The prevention of diphtheria depends almost completely on immunizing children with the DPT vaccine and non-immunized adults with the diphtheria/tetanus vaccine (DT). Most cases of diphtheria occur in people who haven’t received the vaccine at all or haven’t received the entire course. The DPT (Diphtheria–Pertussis–Tetanus) vaccine is given to all children at 3, 4.5 and 6 months of age. Boosters of the vaccine are recommended at 12 to 18 months, at 4 to 6 years, then every 10 years.

1. What is an infective agent of diphtheria?
2. Name the groups of people who are susceptible to diphtheria.
3. How long is the incubation period?
4. Is the onset of the disease rapid or gradual?
5. Describe the initial symptoms of diphtheria.
6. What are the life-threatening complications of diphtheria?
7. How can a doctor make a diagnosis of diphtheria?
8. What is the vaccine against diphtheria?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Diphtheria is a lower respiratory tract infection.
2. It is caused by an aerobic gram-negative bacterium.
3. Diphtheria can easily be spread from person to person.
4. Potentially life-threatening complications occur due to toxin going into the bloodstream.
5. The only way of preventing the disease is immunization.

- ***GRAMMAR***

Task 5. Form plural of the following nouns:

Bacteria, woman, virus, datum, person, case, infection, criteria, nasopharynx, bacillus, diagnosis, disease, man, datum, phenomenon, specimen, analysis.

- ***WORD-BUILDING***

Task 6. Form the opposite words with negative prefixes and complete the table.

Prefixes	Positive	Negative
non-	infectious, specific, palpable, alcoholic, immune	
un-	contaminated, controlled, revealed, susceptible	
in-	sensitive, adequate, visible, formal	
ir-	regular, reversible, resistable, responsible	
dis-	function, placement, traction, colour	

mis-	diagnose, treat, manage, understand	
mal-	position, formation, treatment	

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Diphtheria is …
2. It is caused by …
3. The bacterium spreads through …
4. The incubation period is …
5. The contagious period is …
6. The initial symptoms include …
7. The most severe complications are …
8. The diagnosis is confirmed through …
9. The treatment consists of …
10. The disease can be prevented by …

Task 9. Discuss with a partner any information you know about the topic.

Check your vocabulary

active immunity [ˌæktɪv ɪ'mjuːnətɪ] **–** активный иммунитет
antibiotic [ˌæntɪbaɪ'ɔtɪk] **–** антибиотик
antibody ['æntɪˌbɔdɪ] – антитело
antigen ['æntɪʤən] – антиген
antigen-antibody reaction ['æntɪʤən ˌæntɪˌbɔdɪ rɪ'ækʃ(ə)n] – реакция «антиген – антитело»

antipruritic [ˌantɪprʊ'rɪtɪk] – противозудный
vaccinate ['væksɪneɪt] – вакцинировать
blister ['blɪstə] – пузырь, волдырь
bloodstream ['blʌdstri:m] – кровяное русло, кровоток
booster ['bu:stə] – ревакцинация
carrier ['kærɪə] – переносчик
carry ['kærɪ] – переносить (заболевание), быть переносчиком
causative agent ['kɔ:zətɪv ˌeɪʤ(ə)nt] – возбудитель
chicken pox ['ʧɪkɪnˌpɔks] – ветряная оспа
communicability [kə'mju:nɪkəbɪlɪtɪ] – заразность
communicable [kə'mju:nɪkəbl] – передающийся, инфекционный
congenital [kən'ʤenɪt(ə)l] – врожденный
contagious [kən'teɪʤəs] – контагиозный, заразный
contagious disease [kənˌteɪʤəs dɪ'zi:z] – контагиозное (заразное) заболевание
contamination [kənˌtæmɪ'neɪʃ(ə)n] – загрязнение
crust [krʌst] – струп; покрываться струпом, коркой
culture ['kʌlʧə] – посев
cure [kjuə] – лечение, излечение; излечивать, исцелять
diarrhea [ˌdaɪə'rɪə] – диарея
difficult breathing [ˌdɪfɪk(ə)lt 'bri:ðɪŋ] – затрудненность дыхания
difficult swallowing [ˌdɪfɪk(ə)lt 'swɔləu] – затрудненность глотания
diphtheria [dɪf'θɪərɪə] – дифтерия
direct contact [daɪˌrekt 'kɔntækt] – прямой (непосредственный) контакт
discharge [dɪs'ʧɑ:ʤ] – выделения
discolouration [dɪsˌkʌlə'reɪʃ(ə)n] – изменение цвета
encephalitis [ˌenkefə'laɪtɪs] – энцефалит
encephalopathy [ɛnˌsɛfə'lɒpəθi] – энцефалопатия
endotoxin ['ɛndəʊˌtɒksɪn] – эндотоксин
enlarged lymph nodes [ɪn'lɑ:ʤd lɪmf nəudz] – увеличенные лимфоузлы
erupt [ɪ'rʌpt] – прорывать
eruption [ɪ'rʌpʃ(ə)n] – сыпь
exotoxin – экзотоксин
exposure [ɪk'spəuʒə] – воздействие
fade [feɪd] – блекнуть, постепенно исчезать
fall off ['fɔ:l ɔf] – блекнуть, отцветать

generalized infection [ˌʤen(ə)rəlaɪzd ɪn'fekʃ(ə)n] – распространенная (генералиованная инфекция)

German measles [ˌʤɜːmən 'miːzlz] – коревая краснуха

gram-negative [græm 'negətɪv] – грамотрицательный

gram-positive [græm 'pɔzətɪv] – грамположительный

immune system [ɪ'mjuːn ˌsɪstəm] – иммунная система

immunity [ɪ'mjuːnətɪ] – иммунитет

immunization [ɪˌmjunaɪ'zeɪʃ(ə)n] – иммунизация

immunodeficiency [ˌɪmjunəudɪ'fɪʃ(ə)nsi] **–** иммунодефицит

indirect contact [ˌɪndaɪrekt 'kɔntækt] – непрямой (опосредованный) контакт

infect [ɪn'fekt] – инфицировать

infected person [ɪnˌfektɪd 'pɜːs(ə)n] – инфицированное лицо

infection [ɪn'fekʃ(ə)n] – инфекция

itchy ['ɪʧɪ] – зудящий(ся)

Koplik's spots ['kɒplɪks spɒts] – пятна Коплика

lesion ['liːʒ(ə)n] – повреждение

local infection [ˌləuk(ə)l ɪn'fekʃ(ə)n] – местная (локальная) инфекция

lymphadenopathy [ˌlɪmfædə'nɒpəθi] – лимфаденопатия

lymphatic gland [lɪm'fætɪk glænd] – лимфатический узел

lymphatic tissue [lɪm'fætɪk ˌtɪʃuː] – лимфатическая ткань

macule ['makjuːl] – макула

measles ['miːzlz] – корь

middle ear infection [ˌmɪdl 'ɪə ɪn'fekʃ(ə)n] – инфекция среднего уха

MMR (measles, mumps, rubella) vaccine ['væksiːn] – прививка «корь, свинка, краснуха»

mucopurulent [ˌmjuːkəu'pjuərulənt] – слизисто-гнойный

mucous ['mjuːkəs] – слизистый

mumps [mʌmps] – свинка, паротит

oral-fecal route [ˌɔːr(ə)l'fiːk(ə)l ruːt] – фекально-оральный путь передачи

orchitis [ɔː'kʌɪtɪs] – орхит, воспаление яичек

outbreak ['autbreɪk] – вспышка

papule ['pæpjuːl] – папула

passive immunity [ˌpæsɪv ɪ'mjuːnətɪ] – пассивный иммунитет

person-to-person ['pɜːs(ə)n tə 'pɜːs(ə)n] – от человека к человеку

pertussis [pə'tʌsɪs] – коклюш

poliomyelitis [ˌpəulɪəmaɪə'laɪtɪs] – полиомиелит
protect [prə'tekt] – защищать
protection [prə'tekʃ(ə)n] – защита
purulent ['pjuərulənt] – гнойный
pus [pʌs] – гной
rash [ræʃ] – сыпь
redness ['rednəs] – покраснение
relapse [rɪ'læps] – рецидив
relapsing disease [rɪˌlæpsɪŋ dɪ'ziːz] – болезнь, протекающая с периодическими обострениями
restore [rɪ'stɔː] – восстанавливать
Reye's syndrome ['raɪz ˌsɪndrəum] – синдром Рейе
rubeola [rʊ'biːələ] – коревая краснуха, корь
scab [skæb] – чешуйка
scarlet fever [ˌskɑːlət'fiːvə] – скарлатина
severity [sɪ'verɪtɪ] – тяжесть (заболевания)
skin [skɪn] – кожа
smallpox ['smɔːlpɔks] – натуральная оспа
soothe [suːð] – смягчать, облегчать
sore throat [sɔː 'θrəut] – боль в горле
spot [spɔt] – пятно
spread (spread, spread) [spred] – распространяться
stuffy nose ['stʌfɪ nəuz] – заложенность носа
subside [səb'saɪd] – утихать
swelling ['swelɪŋ] – опухание, отечность
tearing ['tɛərɪŋ] – слезотечение
tetanus ['tet(ə)nəs] – столбняк
toxin ['tɔksɪn] – токсин
transmission [trænz'mɪʃ(ə)n] – передача
transmit [trænz'mɪt] – передавать
treatment ['triːtmənt] – лечение
vaccine ['væksiːn] – вакцина
vesicle ['vesɪkl] – пузырек, везикула
weakened ['wiːk(ə)nd] – ослабленный
whooping cough ['huːpɪŋ kɔf] – коклюш

UNIT V. SOCIAL DISEASES

1. Acquired immune deficiency virus

- *VOCABULARY and PRONUNCIATION*

Task 1. Read out.

1. lymphocyte
   lymphocyte count
   T-helper cell
   T-suppressor cell
   T-killer cell

2. lymph node
   lymph gland
   swollen lymph glands
   lymphadenopathy
   generalized lymphadonopathy

3. weight
   weight loss
   weight gain
   underweight
   overweight patient

- *READING and SPEAKING*

Task 2. Warm-up discussion.

Is acquired immune deficiency syndrome (AIDS) a contagious and dangerous disease? What ways of transmission of the disease do you know? Is there any cure for AIDS?

Task 3. Read the text and answer the questions.

AIDS stands for acquired immune deficiency syndrome. It is caused by the human immunodeficiency virus (HIV), which attacks the T-helper cells of the immune system. As T-helper cells help protect the body against diseases, HIV infection weakens the body's defenses. People infected with HIV do not suffer and die from the effects of the virus itself. They die from different infections of the respiratory system, the

gastrointestinal tract, and the nervous system. These infections accompanying HIV are called opportunistic infections.

There are four stages of the disease progression: the acute stage, the asymptomatic stage, the symptomatic stage and the crisis.

After the incubation period a short flu-like illness may occur. At this acute stage of the disease a patient may experience fever, malaise, lymphadenopathy, and skin rash. These symptoms usually occur within 3 weeks of initial exposure to HIV, after which the person becomes asymptomatic.

During the asymptomatic period a patient has no clinical problems, but continuous viral replication occurs. This stage can last for many years, 10 years or longer.

Following the period with no signs of illness, the symptomatic period develops in many patients. The symptoms during this period are the following: persistent generalized lymphadenopathy, persistent fever, weight loss, diarrhea, personality changes, and even dementia.

The last stage of AIDS is called crisis. It occurs when a variety of bacteria, viruses, and parasites overwhelm the body’s immune system. Development of secondary infectious diseases, secondary cancers, and neurological disorders are characteristic features of this stage. Many HIV patients suffer from a rare form of skin cancer called Kaposi’s sarcoma. A rare type of pneumonia caused by the pathogen Pneumocystis carinii is a frequent cause of death.

A few patients don’t develop full symptoms of AIDS. A raised temperature and swollen lymph glands may develop but the onset of life-threatening diseases may be delayed indefinitely or at least for a long period of time.

HIV is unique among many viral infections affecting the human race. It has a long incubation period, which is the time from infecting a person to developing symptoms of AIDS. The incubation period may be up to 10

years. During this time, a person is HIV positive and can pass the virus to another person.

Transmission of HIV is usually by sexual contact, the use of contaminated syringes and needles by drug abusers, transfusion of infected blood or blood products. Patients with hemophilia who require regular injections of factor VIII are particularly at risk.

However, developed countries introduced sterilization and screening of donated blood for HIV infection. And now the risk of HIV transmission from using blood and blood products is practically absent.

The goals of therapy of AIDS include slowing the growth of the virus, preventing and treating opportunistic infections, providing nutritional support and symptomatic treatment.

1. What do abbreviations AIDS and HIV stand for?
2. Name the role of T-helper cells in the body.
3. What is the difference between HIV and AIDS?
4. What is the main difference of HIV from many human viral infections?
5. What are the ways of transmission of the disease?
6. What do patients with AIDS die from?
7. Describe the goals of therapy of AIDS.
8. What precautions should be taken against HIV infection?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. AIDS is a congenital immune deficiency syndrome.
2. T-helper cells are affected in patients with AIDS.
3. The first period is asymptomatic followed by the symptomatic one.
4. HIV is the synonym to AIDS.

5. There is no cure against AIDS.

- ***GRAMMAR***

Task 5. Find all participles II in the text and complete the table with a suitable participle followed by a certain noun. *Give your own examples of adjectives or participles that can describe a noun.*

Noun	Participle II	Examples
lymphadenopathy	generalized	localized
temperature		
lymph nodes		
syringes		
blood products		
countries		
blood		

- ***WORD-BUILDING***

Task 6. Make participles II and nouns from the following verbs.

Verb	Participle II	Noun
transmit	transmitted	transmission
transfuse		
sterilize		
develop		
infect		
generalize		
contaminate		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Example 1. A: How do you say *синдром приобретенного иммунодефицита* in English?

B: It's *acquired immune deficiency syndrome.*

Example 2. A: What do flu-like symptoms mean?

B: It means *гриппоподобные симптомы.*

Task 8. Complete the sentences.

1. AIDS is …
2. It is caused by …
3. Acquired immune deficiency virus is transmitted through ...
4. The patients at risk are …
5. This disease is characterized by …
6. The patient experiences such symptoms as …
7. The main complications of AIDS are …
8. The diagnostic methods include …
9. The treatment of AIDS is aimed at …
10. Preventive measures are the following …

Task 9. Discuss with a partner any information you know about the topic.

2. Tuberculosis

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. tuberculosis
   pulmonary tuberculosis
   extrapulmonary tuberculosis
   renal tuberculosis
   spinal tuberculosis
2. cough
   coughing up
   coughing up phlegm
   coughing up blood
3. sputum
   sputum culture
   sputum sample
   to produce the sputum

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

What have you heard about tuberculosis infection? Do we still have a problem with tuberculosis incidence in Russia? How can we prevent the disease and its transmission?

Task 3. Read the text and answer the questions.

One of the social diseases nowadays in Russia is tuberculosis. Incidence of tuberculosis is higher in areas with large population. Men are affected more often than women. The greatest number of cases occurs in little children. Socially and economically disadvantaged, alcoholics, malnourished individuals are affected more often.

Scrofula is an old-fashioned name for tuberculosis (TB). It is a bacterial infectious disease. The disease affects the lymph nodes, especially those in the neck. Symptoms include swelling of the glands and the development of abscesses. Tuberculosis may also affect other organs

but the most common form is pulmonary tuberculosis, which attacks the lungs.

The causative bacterium is Mycobacterium tuberculosis. It is a droplet infection which usually passes from person to person. It is spread via airborne droplets when an infected person coughs or sneezes. Once inhaled, the organisms implant themselves in the lungs and begin to divide. Overcrowded living conditions provide long-term environment for the infection to spread.

There is another way of transmission. A strain of tuberculosis affecting cattle can transfer to their milk and infect people drinking it. In Britain pasteurization of milk kills the bacterium but worldwide unpasteurized milk is a common source of infection.

Pulmonary tuberculosis occurs in two phases. In the primary phase the infection occurs in different parts of the body. The victim may develop a dry cough that lasts for 3 to 4 months. The secondary phase occurs with increasing age and/or worsening of patient's health. At this stage the causative bacterium is activated and attacks the lungs. Violent, frequent coughing brings up phlegm which may be tinged with blood. Other clinical manifestations include anorexia, weight loss, low-grade fever, chills and night sweats.

To diagnose the disease a chest X-ray is made, sputum cultures are obtained. A sputum culture identifying Mycobacterium tuberculosis confirms the diagnosis. After the medications are started, sputum samples are obtained again to determine the effectiveness of the therapy.

Mantoux test is the most reliable determinant of tuberculosis infection. A positive reaction doesn't mean that active disease is present but indicates exposure to tuberculosis or the presence of inactive disease. Once the test result is positive, it will be positive in any future tests. When Mantoux test is positive, a chest X-ray is necessary to rule out active tuberculosis or to detect old healed lesions.

The reduction in overcrowding at home, improvement in hygiene and diet, the development of antibiotics and an effective safe vaccine have reduced mortality dramatically. However, each year new cases are reported especially in poor developing countries, as well as in Russia.

The goal of treatment is to prevent transmission, control symptoms, and prevent progression of the disease.

1. What are the risk factors for tuberculosis?
2. What are the main ways of transmission of tuberculosis?
3. What organs are mostly affected in tuberculosis?
4. What is the causative agent called?
5. How can we prevent transferring of the infection through milk?
6. What are the phases of the disease?
7. How can you make a diagnosis of tuberculosis?
8. What does positive Mantoux test mean?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Tuberculosis is a widespread viral infection.
2. It can affect different organs of the body.
3. Tuberculosis of the lungs is the most common form of the disease.
4. To confirm the diagnosis a sputum culture is obtained.
5. Mantoux test is a diagnostic test for tuberculosis.

- ***GRAMMAR***

Task 5. Complete the sentences using Passive Voice with the following verbs**:** *aim at, confirm through, cause by, prevent with, transmit via.*

1. Tubeculosis _____ Mycobacterium tuberculosis.
2. The infection _____ airborn droplets.
3. The diagnosis of TB _____ chest X-ray.

4. Tubeculosis _____ BCG vaccination.

5. The management of TB _____ prevention of the transmittion, symptoms control, prevention of the disease progression.

- ***WORD-BUILDING***

Task 6. Form the words using negative prefixes and complete the table.

Positive	Negative	Example (Noun + Adj)
advantage		economically disadvantaged individuals
pasteurize		
active		
safe		
stable		
infected		
effective		
common		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Tuberculosis is …
2. It is caused by …
3. The bacterium spreads through …
4. The incubation period is …
5. The symptoms of tuberculosis include …
6. The most common form of tuberculosis is …
7. Mantoux test is used for …
8. The diagnosis is confirmed through …

9. The goal of treatment is …
10. The disease can be prevented by …

Task 9. Discuss with a partner any information you know about the topic.

3. Addictions

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. addict
   drug addict
   addiction
   process addiction
   additive substance
   additive behavior
2. dependence
   psychological dependence
   physical dependence
   physical withdrawal syndrome
3. abuse
   substance abuse
   regular substance abuse
   substance abuse disorder
4. alcohol
   alcohol dependence
   alcohol withdrawal
   alcohol abstinence
   alcohol abstinence syndrome

- ***READING AND SPEAKING***

Task 2. Warm-up discussion.

What addictions do you know? Can you list any addictive substances? Why some people use them? Is it a world-wide problem nowadays? What age group are susceptible to any type of addiction?

Task 3. Read the text and answer the questions.

At present time there is such a growing medical and social problem as addiction. Among types of addictions we can distinquish addictive

substances and process addictions. Addictive substances are depressants like opioids, sedatives, or hypnotics, stimulants, hallucinogens and inhalants. Process addictions include eating disorders, compulsive gambling, compulsive sexual disorders, compulsive shopping and compulsive Internet use.

As for substance abuse disorders, they are defined as behavioral changes associated with regular substance abuse that affects the central nervous system. Substance dependence is a pattern of repeated use of a substance, which usually results in tolerance, withdrawal, and compulsive drug-taking behavior. The patient takes substances in larger amounts and over longer periods of time than intended. The patient has the desire to cut out but has unsuccessful efforts to decrease or discontinue the use. Daily activities revolve around the use of the substance.

The need for increased amount of the substance to achieve the desired effect is called substance tolerance. Substance withdrawal occurs when blood levels decrease in an individual with prolonged heavy use of a substance.

One of the most widespread substance abuse disorders is alcoholism. It is a huge problem in Russia that causes antisocial behavior, disabilities and deaths of thousands of people. Alcohol is a central nervous system depressant affecting all body tissues. Physical dependence is a biological need for alcohol to avoid physical withdrawal symptoms. Psychological dependence is a craving for the subjective effect of alcohol.

There can be different etiological factors leading to addictions. Let’s look at some of them. Genetic risk is the first one. It is known that children of alcoholics have three times higher tolerance and occurrence of addiction over children of nonalcoholic parents.

Secondly, psychosocial risk takes place. Individuals with certain personality traits are thought to be susceptible to addictive behavior.

Individuals who have lived with painful experiences are at risk to self-medicate or misuse their medication.

Thirdly, environmental risk is essential. According to the learning social theory, the use of addictive substances is a learned behavior. Engaging in addictive behavior is influenced by exposure to peer pressure, role models, and social norms.

A patient who uses substances may have different symptoms. Loss of consciousness can be related to a person's use of alcohol or other substances. Persons using alcohol or drugs frequently can experience changes in bowel movement. Changes range from diarrhea because of drinking to constipation from using pain medications frequently. Patients regularly may experience weight loss or gain and/or poor nutritional balance. Stress can precipitate an increase in drinking. Stress can also result from drinking or using drugs regularly. People using alcohol and/or other drugs experience all sorts of sleep problems. One may start using alcohol to promote sleep, but once someone develops tolerance, sleep is more difficult.

At acute stage of abuse, care of the person during intoxication should be provided. The focus is on safety of the person. Doctors should maintain safe environment; orient the patient to time, place, and person; maintain adequate nutrition and fluid balance, monitor for beginning of withdrawal sings and symptoms. At rehabilitative stage of abuse, the focus is on teaching about the disease and recovery process and building the person's motivation of abstinence, lifestyle changes, and recovery.

1. What process addictions can you name?
2. Define "substance dependence".
3. Explain the term "substance withdrawal".
4. What do you know about alcohol abuse?
5. List etiological factors in developing substance abuse disorders.

6. What are the main symptoms of different types of substance abuse?

7. What is the most important thing at acute stage of the disorder?

8. What should doctor pay attention to at rehabilitative stage?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Alcohol is an addictive substance causing physical and psychological dependence.

2. Among process addictions in the developed countries there is such an up-to-date addiction as compulsive Internet use.

3. There is no difference between physical and psychological dependence.

4. The primary etiological factor of addiction is an environmental risk.

5. Substance tolerance is thought to be biological need for alcohol.

- ***GRAMMAR***

***Task 5. Complete the sentences using Passive Voice with the following verbs*:** *precipitate by, devide into, influence by, characterize by, define as.*

1. Addictions _____ additive substances and process addictions.

2. Substance abuse disorders _____ behavioral changes associated with regular substance abuse.

3. Substance dependence _____ repeated use of a substance which usually results in tolerance and withdrawal.

4. Engaging in additive behavior _____ exposure to peer pressure.

5. In alcohol abusers increase in drinking _____ stress.

- ***WORD-BUILDING***

Task 6. Form the words using negative prefixes and complete the table.

Positive	Negative	Example (Noun + Adj)
success		
successful		unsuccessful efforts
social		
able		
ability		
alcoholic		
regular		
adequate		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. There are such addictions as …
2. Addictive substances include …
3. Process addictions include …
4. Substance dependence is defined as …
5. There are two types of substance dependence: …
6. There are different etiological factors of addictions …
7. Symptoms of substance abuse are …
8. Patients can also experience …
9. At the acute stage of abuse, the goal of treatment is …
10. At the rehabilitative stage of abuse, the treatment is aimed at …

Task 9. Discuss with a partner any information you know about the topic.

4. Smoking

- ***VOCABULARY and PRONUNCIATION***

Task 1. Read out.

1. smoking
   active smoking
   passive smoking
   secondhand smoking
   voluntary smoking
   involuntary smoking
2. tobacco
   tobacco user
   tobacco addiction
   tobacco disease
   tobacco prevention
3. smoker
   nonsmoker
   nonsmoking
   ex-smoker
   ex-smoking
4. carcinogen
   carcinogenesis
   carcinogenic
   carcinogenic dose
   carcinogenetic substance

- ***READING and SPEAKING***

Task 2. Warm-up discussion.

Are you an active or passive smoker? Why do so many people nowadays smoke cigarettes? Why do medical specialists smoke if they no a lot about possible harmful effects? What programmes should be used to decrease smoking in our country?

Task 3. Read the text and answer the questions.

Everyone knows smoking is bad for our health. Each time a smoker lights up, that single cigarette takes about 5 to 20 minutes off the person's life.

Why do people start smoking? There are no physical reasons to start smoking. The body doesn't need tobacco; it needs food, water, sleep, and exercise. Nevertheless, there could be different psychological reasons to

smoke. Some people think it looks cool. Others start because their family members or friends smoke. About 9 out of 10 tobacco users start before they are 18 years old. Most adults who started smoking in their teens never expected to become addicted.

Nicotine provides both a stimulant and depressant effects on our body. It is suggested that low doses have a depressant effect, while higher doses have a stimulant effect. The main problem is a mild physical and mild to strong psychological dependence to nicotine.

Smoking harms nearly every organ of the body. Cigarette smoking causes lung cancer, as well as many other health problems.

Chronic obstructive pulmonary disease (COPD) caused by smoking is known as tobacco disease. It is a permanent, incurable reduction of pulmonary capacity. It is characterized by shortness of breath, wheezing, persistent coughing with sputum, and damage to the lungs, including emphysema and chronic bronchitis.

Smoking contributes to the risk of developing heart disease. Any smoke contains very fine particles that can penetrate the alveolar wall and go into the blood. These particles exert their effects on the heart in a short time.

Inhalation of tobacco smoke causes several immediate responses within the heart and blood vessels. Within one minute the heart rate begins to rise. It increases by as much as 30 percent during the first 10 minutes of smoking. Carbon monoxide in tobacco smoke reduces the ability of the blood to carry oxygen. Smoking tends to increase blood cholesterol levels and decrease the ratio of high-density lipoprotein (“good” cholesterol) to low-density lipoprotein (“bad” cholesterol). It also raises the levels of fibrinogen and increases platelet production which makes the blood viscous.

Smokers not only develop wrinkles and yellow teeth, they also lose bone density, which increases their risk of osteoporosis. Smoking can

cause fertility problems and can impact sexual health in both men and women.

Another huge problem is passive smoking, especially in families and public places. Passive or involuntary smoking occurs when the exhaled smoke from one person's cigarette is inhaled by other people. Those who breathe in smoke secondhand can get many of the same problems as smokers do. Passive smoking involves inhaling carcinogens, as well as other toxic components. It is known to harm children, infants and pregnant women.

To reduce the risk of these problems smoker should quit his bad habit as early as possible. The earlier you stop, the greater the health benefit.

If somebody smokes and wants to quit, there is much information to read and think about. Support groups are available nowadays. Different approaches to quitting work for different people. For example, support groups exist especially for teens and young adults. Besides, the Internet offers a number of good resources to help people quit smoking.

The only thing that really helps a person is to avoid the problems associated with smoking. Staying smoke free will give you more energy, better performance, better looks, more money in your pocket, and, in the long run, more life to live!

1. What do you think are the main reasons of smoking?
2. List the effects of nicotine on human health.
3. Can nicotine cause physical and psychological dependence?
4. Will smoke quitting reduce the risk of health problems?
5. Does smoking cause an increase or decrease of the heart rate?
6. What is the effect of smoking on lipid levels in blood?
7. Is passive smoking as dangerous as active smoking and why?
8. How can we solve problems associated with smoking in our society?

Task 4. Are these statements true (T) or false (F)? If the statement is false, correct the statement.

1. Smoking causes both physical and psychological dependence.
2. Tobacco smoking increases lung capacity.
3. Blood viscosity, lipid and bad cholesterol levels tend to be elevated in smokers.
4. Active smoking is so-called secondhand.
5. To stop smoking is very easy, you need only to make the right decision.

- ***GRAMMAR***

Task 5. Complete the sentences using Passive Voice with the following verbs: *reduce, characterize by, call as, associate with, aggravate by.*

1. Passive smoking _____ exhales smoke from one person's cigarette.
2. Lung and heart problems _____ by smoking.
3. Chronic obstructive pulmonary disease _____ tobacco disease.
4. COPD _____ by shortness of breath, wheezing and persistant coughing with sputum.
5. Health problems associated with smoking _____ when a patient gives up smoking.

- ***WORD-BUILDING***

Task 6. Form nouns from the given verbs and complete the table.

Verb	Noun	Example (Noun + Adj)
stimulate	stimulant, stimulation	CNS stimulant
depress		
respond		
depend		

increase		
reduce		
addict		
produce		
develop		
support		
exhale		

- ***WORK IN PAIRS***

Task 7. Ask your partner about any medical terms relating to the topic and answer his/her questions.

Task 8. Complete the sentences.

1. Smoking is …
2. There are different reasons of smoking such as …
3. The effects of such a bad habit on human body are …
4. Smoking causes …
5. Tobacco disease is …
6. Its symptoms include …
7. Heart problems associated with smoking are …
8. Other health problems include …
9. Passive smoking is …
10. To stop smoking it is necessary …

Task 9. Discuss any information you know about the topic with a partner.

Check your vocabulary

abstinence ['æbstɪnəns] – абстиненция, воздержание

abuse [ə'bju:s] – злоупотребление

abuser [ə'bju:zə] – наркоман, человек, злоупотребляющий к.-л. химическим препаратом

acquired immune deficiency syndrome [ə¸kwaɪəd ɪ¸mju:n dɪ'fɪʃ(ə)nsɪ ¸sɪndrəum] – синдром приобретенного иммунодефицита

active smoking [¸æktɪv 'sməukɪŋ] – активное курение

addiction [ə'dɪkʃ(ə)n] – привыкание

addictive substance [ə¸dɪktɪv 'sʌbst(ə)ns] – вещество, вызывающее привыкание

attack [ə'tæk] – поражать

consciousness ['kɔnʃəsnəs] – сознание

contaminated [kən'tæmɪneɪt] – зараженный

craving ['kreɪvɪŋ] – страстное желание

dependence [dɪ'pendəns] – зависимость

depressant [dɪ'pres(ə)nt] – вещество, подавляющее ЦНС, депрессант

detect [dɪ'tekt] – определять

disability [¸dɪsə'bɪlətɪ] – нетрудоспособность

discontinue [¸dɪskən'tɪnju:] – прекращать

donated blood [dəu'neɪtɪd blʌd] – донорская кровь

drug [drʌg] – 1. препарат, 2. наркотик

drug abuser ['drʌg ə¸bju:zə] – наркоман

habit ['hæbɪt] – привычка

halucination [hə¸lu:sɪ'neɪʃ(ə)n] – галлюцинация

hallucinogen [hə¸lu:'sɪnədʒən] – галлюциноген, вещество, вызывающее галлюцинации

heal [hi:l] – заживать

human immunodeficiency virus [¸hju:mən ¸ɪmjunəudɪ'fɪʃ(ə)nsɪ ¸vaɪrəs] – вирус иммунодефицита человека

hypnotic[hɪp'nɔtɪk] – снотворное средство

implant [ɪm'plɑ:nt] – внедряться

improvement [ɪm'pru:vmənt] – улучшение

inhale [ɪn'heɪl] – вдыхать

life-threatening [laɪf 'θret(ə)nɪŋ] – угрожающий жизни

living conditions [¸lɪvɪŋ kən'dɪʃ(ə)n] – условия проживания

lymph node ['lɪmf nəud] – лимфатический узел

malnourished [ˌmæl'nʌrɪʃt] – с недостаточностью питания
malnourishment [ˌmæl'nʌrɪʃment] – плохое питание
Mantoux test ['mæntu:] test – проба Манту
mortality [mɔ:'tælətɪ] – смертность
mortality rate [mɔ:'tælətɪ reɪt] – смертность, коэффициен смертности
needle ['ni:dl] – игла
opportunistic infection [ɔpətju:ˌnɪstɪk ɪn'fekʃ(ə)n] – оппортунистическая инфекция, сопутствующая инфекция
pass [pɑ:s] – передавать(ся)
passive smoking (secondhand smoking) ['pæsɪv 'sməukɪŋ] – пассивное курение
pasteurization [ˌpæstʃ(ə)raɪ'zeɪʃ(ə)n] – пастеризация
pathogen ['pæθədʒən] – патогенный микроорганизм
promote [prə'məut] – обеспечивать
psychological [ˌsaɪkə'lɔdʒɪk(ə)l)] – психический
recovery process [rɪ'kʌv(ə)rɪ ˌprəuses] – процесс выздоровления
rehabilitative [ˌri:ə'bɪlɪtətɪv] – реабилитационный
rehabilitation [ˌri:əˌbɪlɪ'teɪʃ(ə)n] – реабилитация
rule out [ru:l] – исключать
safety ['seɪftɪ] – безопасность
screening ['skri:nɪŋ] – скрининговое исследование
secondhand smoking [sekəndˌhænd 'sməukɪŋ] – пассивное курение
sexually transmitted disease [ˌsekʃuəlɪ trænsˌmɪtɪd dɪ'zi:z] – заболевание, передающиеся половым путем
smoke [sməuk] – дым, курить
smoker ['sməukə] – курящий
sputum culture ['spju:təm ˌkʌltʃə] – посев мокроты
sputum sample ['spju:təm ˌsɑ:mpl] – анализ мокроты
stimulant ['stɪmjələnt] – вещество, стимулирующее центральную нервную систему, стимулятор
swollen gland ['swəulən glænd] – опухшая, отекшая железа
syringe [sɪ'rɪndʒ] – шприц
take [teɪk] – принимать
T-helper cells ['tɪ ˌhelpə selz] – Т-хелперы
weight loss ['weɪt ˌlɔs] – потеря веса
withdrawal [wɪð'drɔ:(ə)l] – синдром отмены

Add some new words, synonyms and expressions if you need

Comprehension review

Answer the following questions. Remember: only one answer is correct.

The cardiovascular system

1. What is the normal heart rate?
   a) 59 beats per minute
   b) 70 beats per minute
   c) 90 beats per minute
   d) 95 beats per minute

2. What is the normal blood pressure?
   a) 140 over 90 mm Hg
   b) 130 over 90 mm Hg
   c) 90 over 60 mm Hg
   d) 120 over 80 mm Hg

3. The largest artery of the body is:
   a) vein
   b) venule
   c) artery
   d) aorta

4. The smallest vessel of the body is:
   a) vein
   b) venule
   c) arteriola
   d) capillary

5. The vessels that carry blood from the body to the heart:
   a) arteries
   b) veins
   c) venules
   d) capillaries

6. The vessels that carry blood from the heart to the body:
   a) arteries
   b) veins
   c) venules
   d) capillaries

7. Blood rich in carbon dioxide is called
   a) oxygenated blood
   b) mixed blood
   c) deoxygenated blood
   d) complex blood

8. Blood rich in oxygen is called
   a) oxygenated blood
   b) mixed blood
   c) deoxygenated blood
   d) complex blood

9. The term “hypertension” means
   a) an increase in blood pressure
   b) a decrease in blood pressure
   c) a stable pressure
   d) a drop in blood pressure

10. The term “hypotension” means
    a) an increase in blood pressure
    b) a decrease in blood pressure
    c) a stable pressure
    d) an unstable blood pressure

11. The structure that vertically divides the heart into two main parts is:
    a) the atrioventricular valve
    b) the septum
    c) the pulmonic valve
    d) the aortic valve

12. Stroke is described as
    a) a sudden blockage of blood support in the brain
    b) a venous insufficiency
    c) a severe trauma of brain
    d) a mild heart disease

13. Anginal pain is described as
    a) pain in the calf
    b) chest pain
    c) abdominal pain
    d) eye pain

14. The term “angina” refers to
    a) a heart disease
    b) a lung disease
    c) a kidney disease
    d) a bone disease

15. Diet for patients with heart problems should be
    a) low in cholesterol
    b) high in cholesterol
    c) low in carbohydrate
    d) high in carbohydrate

16. All these diseases are associated with cardiac problems apart from:
    a) angina
    b) stroke
    c) dementia
    d) myocardial infarction

The respiratory system

1. The main function of the lungs is
    a) carrying oxygen
    b) breathing
    c) rebreathing
    d) pumping the blood

2. Inhalation is the process of
    a) breathing the air out
    b) treatment
    c) breathing the air in
    d) gas exchange

3. Chest X-ray is an examination of
    a) vessels
    b) spleen and liver
    c) abdominal organs
    d) lungs and heart

4. The patients susceptible to lung infections are:
    a) adults
    b) elderly people
    c) newborns
    d) teenagers

5. The gas exchange occurs:
   a) in the mouth
   b) in the larynx
   c) in the alveoli
   d) in the main bronchi

6. The most common symptoms of a respiratory infection are:
   a) coughing and sneezing
   b) nose bleeding
   c) nausea and vomiting
   d) bradycardia

7. Difficulty breathing is described as
   a) normal breathing process
   b) laboured breathing
   c) deep breathing
   d) regular breathing

8. The term “parietal pleura” means:
   a) the inner layer of the pleura
   b) the outer layer of the pleura
   c) the middle layer of the pleura
   d) the lateral layer of the pleura

9. The term “visceral pleura” means:
   a) the inner layer of the pleura
   b) the outer layer of the pleura
   c) the middle layer of the pleura
   d) the lateral layer of the pleura

10. Tuberculosis is known as:
   a) a bacterial infection of the kidneys
   b) a viral infection
   c) a fungal infection of the lungs
   d) a bacterial infection of the lungs

11. Tuberculosis can be prevented through
   a) flue vaccine
   b) BCG vaccination
   c) Hepatitis B vaccine
   d) polio vaccine

12. Lung capacity is greater:
   a) in active smokers
   b) in passive smokers
   c) in sportsmen
   d) in medical personnel

13. Bronchial asthma is thought to be an allergic disease of :
   a) the bronchi
   b) the larynx
   c) the nasal cavity
   d) the skin

14. Lung problems are associated with external etiological factors:
   a) acid rains and ozone layers
   b) city garbage
   c) dust and smoke
   d) no one of these factors

15. Sputum culture is a diagnostic procedure to identify an infective agent of:
    a) the lymphatic tissue
    b) the kidneys
    c) the liver
    d) the lungs

16. A flue infection is cased by:
    a) unknown causative agent
    b) a virus
    c) a bacteria
    d) a fungus

The gastrointestinal system

1. The stomach is an organ of the gastrointestinal tract located:
    a) in the chest cavity
    b) in the pelvis
    c) in the pleural cavity
    d) in the abdomen

2. The esophagus is described as:
    a) a muscular tube in the abdomen
    b) a muscular tube in the chest
    c) a bone tube in the chest
    d) a bone tube in the abdomen

3. The small intestine consists of such parts as:
    a) duodenum, jejunum, ileum
    b) ascending, transverse and descending colon
    c) duodenum, ascending and descending colon
    d) ascending, descending, transverse colon, and rectum

4. The large intestine consists of such parts as:
    a) duodenum, jejunum, ileum
    b) ascending, transverse and descending colon
    c) duodenum, ascending and descending colon
    d) ascending, descending, transverse colon, and rectum

5. The pancreas as an endocrine gland secretes:
    a) adrenalin
    b) noradrenalin
    c) insulin
    d) somatotropic hormone

6. Peptic ulcer disease is defined as a defect in the mucosa of:
    a) the stomach
    b) the intestine
    c) the pancreas
    d) the liver

7. Gastrointestinal bleeding can be diagnosed when a patient has such symptoms as
   a) blood in the vomit
   b) blood in the urine
   c) mucus in the vomit
   d) mucus in the urine

8. A doctor can listen to bowel sounds:
   a) over the abdomen
   b) over the kidneys
   c) over the calves
   d) over the chest

9. The term “jaundice” stands for yellowish discolouration of:
   a) the feces
   b) the skin
   c) the urine
   d) the vomit

10. Patients who are at risk for developing viral hepatitis:
   a) children and newborns
   b) medical personal
   c) elderly people
   d) alcoholics

11. Bowel irregularity characterized by thinning of the stool is called:
   a) melena
   b) diarrhea
   c) constipation
   d) flatulence

12. Flatulence is described as:
   a) an excess gas formation in the bowel
   b) a deficient gas formation in the bowel
   c) a rigid abdomen
   d) an abdominal tenderness

13. Patients with gastritis should be recommended to eat:
   a) low-fat diet
   b) spicy food
   c) irritating food
   d) low-protein diet

14. A causative agent of peptic ulcer is:
   a) a streptococcal infection
   b) a hepatic virus
   c) Helicobacter pylori
   d) a Diphtheria bacterium

15. Appedicitis is
   a) a chronic inflammation of the appendix
   b) an acute inflammation of the appendix
   c) a chronic damage of the appendix
   d) an acute inflammation of the peritoneum

16. The most common complication of appendicitis:
   a) peritonitis
   b) abdominal pain
   c) joint pain
   d) lung bleeding

Social diseases

1. What is the most common risk factor associated with lung cancer:
   a) drinking alcohol
   b) taking drugs
   c) gambling
   d) smoking

2. How can HIV be transmitted:
   a) through direct contact
   b) through sexual contact
   c) through coughs and sneezes
   d) through fecal-oral route

3. What does the abbreviation “HIV” stand for?
   a) acquired infectious deficiency syndrome
   b) inborn immune deficiency syndrome
   c) human immunodeficiency virus
   d) acquired immune deficiency virus

4. What does the abbreviation “AIDS” stand for?
   a) acquired infectious deficiency syndrome
   b) inborn immune deficiency syndrome
   c) human immunodeficiency virus
   d) acquired immune deficiency virus

5. How can hepatitis B be transmitted:
   a) through direct contact
   b) through sexual contact
   c) through coughs and sneezes
   d) through fecal-oral route

6. How can hepatitis A be transmitted:
   a) through direct contact
   b) through sexual contact
   c) through coughs and sneezes
   d) through fecal-oral route

7. To diagnose pulmonary tuberculosis it is necessary to perform:
   a) bone X-ray examination
   b) X-ray of the heart
   c) chest X-ray
   d) kidney examination

8. The most common symptoms of tuberculosis are:
   a) low-grade fever and coughing
   b) constipation and coughing
   c) fever and stomachache
   d) diarrhea and abdominal spasms

9. Abuser is a person who:
   a) use small amounts of alcohol
   b) does exercises every day
   c) never does exercises
   d) overuse drugs and drug-related substances

10. Smoking can primarilly cause severe problems of
    a) cardiovascular system
    b) renal system
    c) hepatobiliary system
    d) musculoskeletal system

11. What is the substance that can lead to psychological dependence?
    a) aspirin
    b) antibiotic
    c) heroin
    d) vitamin B

12. Alcoholism is a social problem associated with:
    a) an excessive alcohol intake
    b) an excessive alcohol excretion
    c) rare alcohol intake
    d) absence of alcohol drinking on a regular basis

13. What group of people is more susceptible to alcoholism?
    a) neonates
    b) elderly people
    c) young children
    d) teenagers and young adults

14. Addiction as thought to be
    a) a medical problem
    b) a social problem
    c) medical and social problem
    d) a normal body reaction

15. Passive smoking occurs when
    a) a person smokes too many cigarettes a day
    b) a person inhales smoke from one person exhaled
    c) a person exhales smoke of the other person's cigarette
    d) a person has lung problems

16. Active smoking occurs when
    a) a person smokes too many cigarettes a day
    b) a person inhales smoke from one person exhaled
    c) a person exhales smoke of the other person's cigarette
    d) a person has lung problems

Childhood infectious diseases

1. The incubation period is characterized by
    a) severe symptoms of a disease
    b) moderate symptoms of a disease
    c) mild symptoms of a disease
    d) absence of any symptoms

2. The way of tubeculosis transmission is:
    a) airborne
    b) oral
    c) parenteral
    d) intravenous

3. The symptomatic period of the disease is described as:
   a) absence of any symptoms
   b) the period when the symptoms are evident
   c) the period of full recovery
   d) the period when symptoms can hardly be noticed

4. Diphtheria is thought to be:
   a) an upper gastrointestinal tract infection
   b) a lower respiratory tract infection
   c) an upper respiratory infection
   d) a lower gastrointestinal tract infection

5. The synonym to the word “measles” is
   a) German measles
   b) rubeola
   c) diphtheria
   d) chicken pox

6. The purpose of vaccination is:
   a) to prevent the disease
   b) to treat the disease
   c) to diagnose the disease
   d) to rule out the disease

7. Measles is a contagious infectious disease caused by:
   a) a virus
   b) a gram-negative bacterium
   c) a gram-positive bacterium
   d) a fungus

8. Chicken pox is a contagious infectious disease mostly affects:
   a) adults
   b) teenagers
   c) children
   d) elderly people

9. Characteristic signs of chicken pox are:
   a) vesicles
   b) ulcers
   c) wounds
   d) cuts

10. To prevent diphtheria every person should be:
   a) treated
   b) diagnosed
   c) examined
   d) immunized

11. Pertussis, a bacterial respiratory infection is characterized by
   a) a mild paroxysmal cough
   b) a severe paroxysmal cough
   c) a moderate cough
   d) absence of cough

12. Mumps as a viral infectious disease causes
   a) swelling of salivary glands
   b) swelling of pancreas
   c) swelling of lymphoid glands
   d) swelling of soft tissues

13. The term “communicable disease” means that
    a) the disease is somatic
    b) the disease occurs only in children
    c) the disease occurs mainly in adults and elderly people
    d) the disease is contagious

14. The period of communicability is described as
    a) the period when all the presenting symptoms subside
    b) the period following the exposure to an infectious agent
    c) the period when clinical picture of the disease is obvious
    d) the period of infectious disease transmission from person to person

CONTENTS

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