МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ
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(структурное подразделение)

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# *ИНОСТРАННЫЙ ЯЗЫК ДЛЯ ОБЩЕПРОФЕССИОНАЛЬНЫХ ЦЕЛЕЙ ВРАЧА*

## *УЧЕБНО-МЕТОДИЧЕСКОЕ ПОСОБИЕ*

для обучающихся по направлению подготовки
*31.05.02 Педиатрия*

Симферополь
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Учебно-методическое пособие разработано для обучающихся направления подготовки 31.05.02 Педиатрия.

Предназначено для обучающихся медицинских направленностей, а также для всех, кто стремится совершенствовать свои умения и навыки в области иностранного языка в сфере медицины.

## *СОДЕРЖАНИЕ*

# *ВВЕДЕНИЕ*

В современных условиях повышается роль англоязычной подготовки специалиста в связи с непрерывным развитием медицинской науки, расширением информационного пространства и роли английского языка в мире. Иностранный язык является важным компонентом подготовки будущего врача на додипломном этапе. Совершенствование учебного процесса требует перехода от информационно-сообщающих к активным формам обучения. Необходимость формирования у будущих врачей иноязычной коммуникативной компетенции в профессиональной сфере способствует интенсификации учебного процесса.

Основной целью курса «Иностранный язык для общепрофессиональных целей врача» является формирование компетенций, обозначенных во ФГОС 3+ для обучающихся медицинских вузов. Владение будущими педиатрами английским языком необходимо для успешной профессиональной межкультурной коммуникации; это предполагает овладение устными и письменными формами общения на иностранном языке. Изучение иностранного языка призвано также обеспечить:

- повышение уровня учебной автономии, способности к самообразованию;
- развитие когнитивных и исследовательских умений;
- развитие информационной культуры;
- расширение кругозора и повышение общей культуры обучающихся;
- воспитание толерантности и уважения к духовным ценностям разных стран и народов.

Именно для достижения данных целей и был создан «Иностранный язык для общепрофессиональных целей врача», курс английского языка для обучающихся второго курса по направлению подготовки *31.05.02 Педиатрия*. Он обеспечивает формирование навыков и развитие коммуникативных умений в говорении, чтении, письме и аудировании, необходимых для успешного общения на английском языке как в устной, так и в письменной формах.

Курс состоит из 16 уроков (Units). Каждый подмодуль обеспечивает усвоение базового языкового материала по предложенным темам, необходимым для обучающихся медицинских факультетов в вузах Российской Федерации. В соответствии с рабочей программой, каждый урок (Unit) основной части рассчитан на 2 часа практических занятий, в целом обеспечивая необходимый материал для 34 часов аудиторной работы.

Пособие имеет следующую структуру уроков, которые включают такие разделы:

**Lead-In** (Введение). Введение в тему, где преподаватель путем выполнения несложных упражнений, наглядности и в ходе вопросно-ответной беседы выясняет, что обучающиеся уже знают по данной проблеме, таким образом активизируя словарный запас обучающихся и одновременно представляя им новую тему.

**Reading** (Чтение). Этот раздел включает учебный текст, содержащий новый лексико-грамматический материал по теме урока. Предложенные тексты взяты из аутентичных источников.

**Top Margin** (Верхнее поле страницы) содержит цитаты. Это дополнительный материал, который внесет разнообразие в урок и будет интересен продвинутым обучающимся, которые усваивают материал быстрее остальных.

**Vocabulary Practice** (Активизация лексики). Этот раздел содержит упражнения, направленные на работу с новыми словами и словосочетаниями, введенными в тексте. Обучающиеся активизируют лексику, подбирая синонимы и антонимы, однокоренные слова, используя слова в контексте и т.д.

**Language Development** (Развитие навыков владения языком). Данный раздел развивает навыки владения языком, консолидируя практическое занятие и самооценку студента. Упражнения разработаны таким образом, что при их выполнении студент должен использовать активную лексику урока, грамматические конструкции в своей устной и письменной речи.

**Grammar Point** (грамматический момент). Раздел презентует интернет-ссылки на грамматический материал, с целью его закрепления в разнообразных грамматических упражнениях и тестах.

**Checklist** (Проверьте себя). Раздел позволяет обучающимся проверить, насколько успешно они усвоили изученный материал.

**Key Words** (Ключевые слова). Раздел содержит активные для данного урока лексические единицы, обязательный для запоминания и употребления вокабуляр по изучаемой теме. Каждый обучающийся может дополнить перечень новых слов другими лексическими единицами, которые он считает полезными и необходимыми именно для него (в конце каждого урока отведено специальное место для заметок).

Пособие также снабжено словарем, включающим как активную лексику уроков, так и дополнительные слова и словосочетания, встречающиеся в пособии, таблицу неправильных глаголов (в алфавитном порядке), таблицу времен, представляющую английские глагольные формы в активном и пассивном залоге.

В пособии также представлены вопросы к зачету по завершении курса.

Литература включает список использованной литературы и другие источники, которые могут быть рекомендованы обучающимся для углубления знаний по английскому языку.

# UNIT I. THE RESPIRATORY SYSTEM

**In this unit**

- describing the human respiratory system and its organs
- talking about the functions of the respiratory system
- *Present and Past Active Tenses*

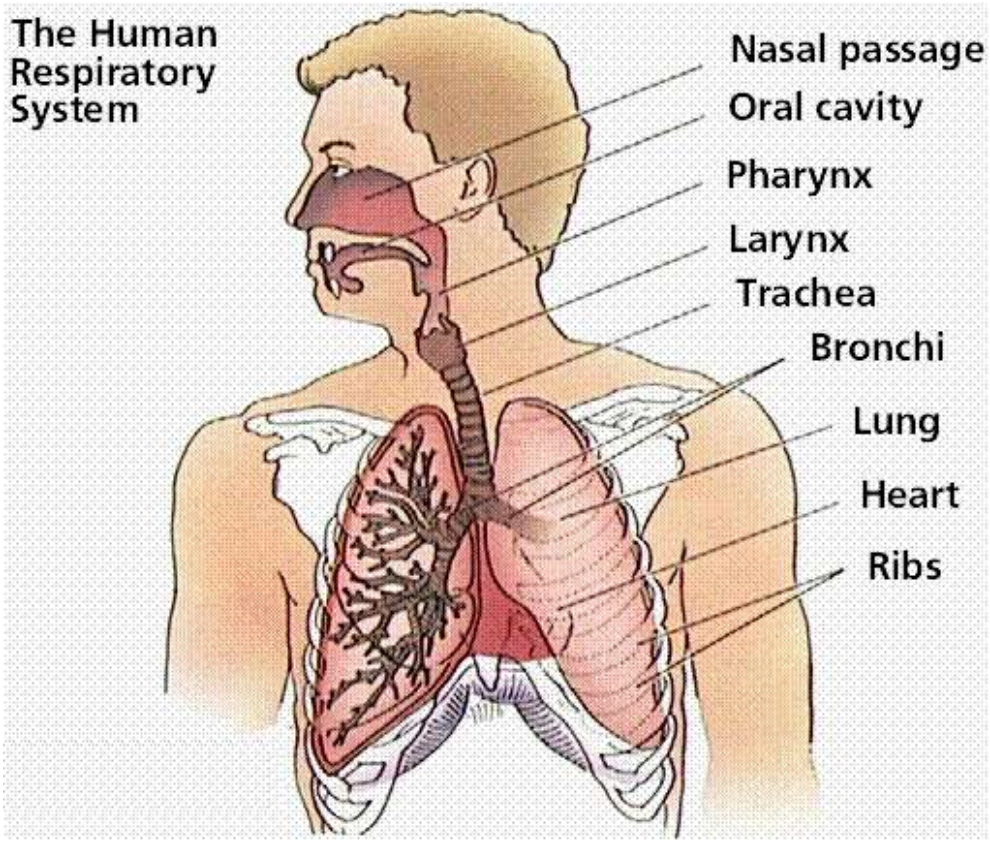
## Lead-in

**1. Это интересно:**

- At rest, we breathe 15 to 20 times a minute and exchange about 500 milliliters of air with each complete breath in and out.
- Approximately about 150 milliliters of the air we breathe in with each breath fills the passageways of the trachea, bronchi, and bronchioles.
- We breathe over 5,000 times a day, taking in enough air throughout a lifetime to fill 10 million balloons.
- The average set of human lungs has approximately 600 million alveoli (300 million per lung), creating a respiratory surface about the size of a singles tennis court or a square about 9 m long on each side.
- At birth, an infant's lung is estimated to have approximately 20 to 30 million alveoli and 1,500 miles of airway passages.
- The right lung is slightly larger than the left.
- The capillaries in the lungs would extend 1,600 meters, or about one mile, if placed end to end.
- As a result of goblet cells and fine hair-like structures called cilia that help to filter foreign particles out of the air before they can enter the lungs, air breathed in through the nose is cleaner than air entering through the mouth.

**2. Рассмотрите рисунок и назовите органы дыхательной системы.**

**3. Прочитайте текст о дыхательной системе и подготовьтесь к его обсуждению.**



*Life is not measured by the number of breaths we take, but by the moments that take our breath away.*
*Hillary Cooper*

# Reading

## The Respiratory System

### The Role of the Respiratory System

Although all of the human body's various systems are **integral** to life, none of them—from the cardiovascular to the nervous systems—would be able to function without the respiratory system. It is the respiratory system that stores up the body's most basic fuel in the form of oxygen that we breathe in from the air. Every cell in our body uses oxygen to produce energy from food and drink. In fact, every chemical process throughout
the body ultimately needs oxygen to take place. It is also through the respiratory system that the body eliminates carbon dioxide waste from cell metabolism. If the respiratory system **ceases** to function, death **occurs** within minutes as carbon dioxide rapidly reaches toxic levels in the blood.

### The Structure

The respiratory system is a complex system of organs and tissues subdivided into the upper and lower respiratory tracts. Its role is to regulate the respiration process. The organs of **the upper respiratory tract** are the nose and nasal cavity or passage, the **pharynx** or throat, and the **larynx** or **voice box**. Located in the **lower respiratory tract** is the trachea or **windpipe**, the **bronchi**, the **alveoli**, and the lungs.
The lungs are two cone-shaped organs located in the thoracic cavity. A double membrane, the **pleura**, covers the lungs and lines the thoracic cavity. The bottom of the thoracic cavity is formed by the **diaphragm**.

### Respiration

**Respiration** is the exchange of oxygen and carbon dioxide between the atmosphere and the body cells, including **breathing** (**inhalation** and **exhalation**); diffusion of oxygen from alveoli to blood and of carbon dioxide from blood to alveoli; and transport of oxygen to and carbon dioxide from body cells.

### Breathing/Ventilation

- Air is warmed, moistened and filtered as it travels through the **mouth** and **nasal passages**.
- It then passes through the trachea and one of the two bronchi into one of the lungs.
- After passing into the many **bronchioles**, it finally arrives into some of the millions of tiny sacs called **alveoli**. This is where gas exchange takes place - **oxygen** passes out of the air into the blood, and **carbon dioxide** passes out of the blood into the air in the alveoli. This process is called **diffusion**.

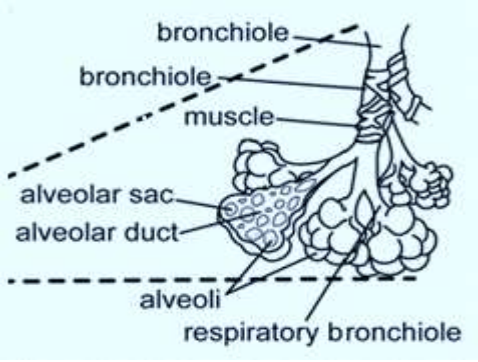
When you inhale:

- the **intercostal muscles** contract and expand the chest;
- the **diaphragm** at this time moves downward enlarging the chest cavity;
- **pressure** inside the chest is lowered. Reduced air pressure in the lungs causes air to enter the lungs.

When you exhale:

- the intercostal muscles relax, the ribs go down;
- the diaphragm relaxes, decreasing the volume of the chest;
- pressure inside the chest increases and air is forced out.

In inhaled air there are 21% of oxygen and 0.04% of carbon dioxide and in exhaled one – 16 and 4% respectively.



# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Поставьте следующие существительные во множественное число.**

alveolus – _____
bronchus - _____
focus - _____
basis - _____
bacterium - _____
pharynx - _____
pleura - _____

**3. a. Подберите все возможные синонимы к следующим словам, а затем вставьте одно из них в пробел.**

breathing →_____
breathing in →_____
breathing out →_____
to breathe in→_____
to breathe out→_____

**b.** When one _____[1] the lungs dilate. When one _____[2] the lungs contract. On physical exertion the patient's _____[3] became deep. When the temperature is high a patient usually _____[4] deeply. Ventilation is the process of _____[5] and _____[6] . On deep _____[7] a person _____[8] 1.5-2 liters of air.

**4. Подберите антонимы к следующим словам и словосочетаниям.**

breathe in ≠ _____
contract ≠ _____
to lift/to rise ≠ _____
to move upward ≠ _____
to increase ≠ _____
to enlarge ≠ _____
to go in ≠ _____

**5. Подберите синонимы к следующим словам.**

| | |
|---|---|
| **1.** to occur | **a.** to stop |
| **2.** to expand | **b.** essential |
| **3.** to cease | **c.** to get through |
| **4.** to pass through | **d.** to happen |
| **5.** to eliminate | **e.** to spread |
| **6.** integral | **f.** to get rid of |

**6. Заполните пробелы словами из таблицы.**

| |
|---|
| referred, formed, located, surrounded, expanded, subdivided |

1. Alveoli are _____ by a network of capillaries.
2. The respiratory system is _____ into the upper and lower respiratory tract.
3. The lungs are _____ in the thoracic cavity.
4. On inhalation the chest is _____.
5. The process of inspiration and expiration is _____ to as pulmonary ventilation.
6. The bottom of the thoracic cavity is _____ by the diaphragm.

**7. Заполните пробелы, используя активную лексику урока.**

1. The voice box, or the _____, contains vocal cords; they are responsible for producing the human voice.
2. The exchange of oxygen and carbon dioxide _____ in the alveoli.
3. Breathing consists of inhaling and exhaling, these motions are produced by movements of the _____.
4. The small air sacs in the lungs through which gases are exchanged between the atmosphere and the blood are the _____.
5. The tube-like structure is called _____, or windpipe.
6. The outer surfaces of the lungs are covered with a membrane called _____.
7. The scientific name for the throat is the _____ _____ .
8. The trachea divides into the right and left main _____.
9. The _____ rate depends on the amount of carbon dioxide in the blood.
10. At birth, an infant's lung have approximately 20 to 30 million _____ , while in the lung of an adult there are over 700 million _____.
11. _____ perform gas exchange in alveoli.

# Language Development

**1. Закончите предложения.**

1. The organs of the respiratory system are ____
_____
2. The upper respiratory tract consists of _____
_____
3. The lower respiratory tract includes _____
_____
4. It is in the alveoli that _____
_____
5. Breathing, technically called ventilation is the process _____
_____
6. The function of the respiratory system is ____
_____

**2. Просмотрите текст о дыхательной системе еще раз и ответьте на вопросы.**

1. What is the function of the respiratory system?
_____

2. What are the major subdivisions of the respiratory system? _____
_____

3. What organs are included into the upper respiratory tract? lower respiratory tract?
_____
_____

4. How is the process of gas exchange called and where does it take place?
_____

5. What are the stages of respiration in the human organism?
_____
_____

**3. Используя материал данного урока, опишите процесс вдоха и выдоха.**

*When we breathe in, muscles in the chest ……*
_____
_____

*When we breathe out …*_____
_____
_____

**4. Тест: Выберите правильный ответ, чтобы закончить следующие предложения.**

1. The lungs, nose and trachea are all part of the
**a.** skeletal system **b.** digestive system
**c.** respiratory system **d.** circulatory system

2. Air enters the body through the
**a**. lungs **b.** nose
**c.** larynx **d**. trachea

3. The voice box is also known as the
**a.** larynx **b.** windpipe
**c.** trachea **d.** alveolus

4. Air leaves the trachea and passes through the:
**a.** bronchioles **b.** capillaries
**c.** bronchi **d.** air sacs

5. The tiny sacs in the lungs are called:
**a.** bronchioles
**b.** capillaries
**c.** alveoli

6. In the alveoli carbon dioxide:

**a.** passes out of the blood
**b.** passes into blood
**c.** passes away from the air

7. When we exhale, pressure in the chest:
**a.** reduces
**b.** remains the same
**c.** increases

8. Respiration is the exchange of oxygen and carbon dioxide between:

**a.** the atmosphere and the body cells
**b.** the lungs and the blood
**c.** between the atmosphere and the lungs

**5. Проект.**

**Watch the video *The Respiratory System: Control of Breathing*:**
*https://www.youtube.com/watch?v=F0OBkR00OZE*
**Be ready to characterise the main mechanisms involved in the control of respiration.**

# Grammar Point

## Present & Past ActiveTenses

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/english_tenses.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/tenses/time_phrases.htm

https://www.englisch-hilfen.de/en/exercises/tenses/find_tenses3.htm

https://www.englisch-hilfen.de/en/complex_tests/simple_present_progressive1/index.php

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can describe the structure of the respiratory system and its organs
- I know the functions of the respiratory system
- I know the symptoms of upper respiratory tract infection and lung disease.
- I can use *Perfect Continuous (Present and Past)*

# Key Words

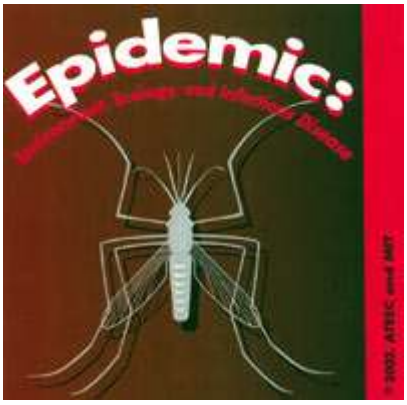
alveolus (pl. alveoli) /ælˈvɪələs (ælˈvɪəlaɪ)/ *n*
blood-stained /ˈblʌdstɛɪnd/ *adj*
breath /brɛT/ *n*
breathe /brJƉ/ in *v*
breathing /ˈbrJƉɪŋ/ *n* = ventilation /ˌvɛntɪˈleɪʃən/ *n*
bronchus (pl. bronchi) /ˈbrɔŋkəs (ˈbrɔŋkaɪ)/ *n*
cease /sJs/ *v*
cough /kɔf/ *n, v*
diaphragm /ˈdaɪəfrӕm/ *n*
diffusion /dɪˈfjʉʒən/ *n*
dry /draɪ/ *adj*
dyspnoea /dɪspˈnJə/ *n*
expiration /ˌɛkspɪˈreɪʃən/ *n*
inspiration /ˌɪnspɪˈreɪʃən/ *n*
integral /ɪnˈtɛgrəl/ *adj*
larynx /ˈlӕrɪŋks/ *n* = voice box /vɔɪs bɔks/ *n*
loose /lʉs/ *adj*
lower respiratory tract /ləuə rəˈspɪrətərɪ trӕkt/
mucoid /ˈmjʉɪkɔɪd/ *adj*
occur /əˈkɅ/ *v*
pharynx /ˈfӕrɪŋks/ *n*
pleura /ˈplʊərə / *n*
productive /prəˈdʌktɪv/ *adj*
purulent /ˈpjʊərʊlənt/ *adj*
respiration /ˌrɛspɪˈreɪʃən/ *n*
reverse /rɪˈvɅs/ *adj, v*
sputum /ˈspjʉtəm/ *n* = phlegm /flɛm/ *n*
upper respiratory tract /ˈʌpə rəˈspɪrətərɪ trӕkt/
vocal resonance /ˈvəukəl ˈrɛzənəns/
wheezes /ˈwJzɪz/ *n pl.*
windpipe /ˈwɪndpaɪp/ *n* = trachea /trəˈkJə/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT II. INFECTIOUS DISEASES

**In this unit**

- talking about the main infectious diseases
- describing the main symptoms of infectious diseases
- discussing steps to fight infectious diseases
- *Future Active Tenses*




## Lead-in

**1. Ответьте на вопросы:**

- What infectious diseases do you know?
- Are they dangerous? Why?
- How do they spread?
- Have you ever been ill with any infectious disease? What was it? What was the treatment?
- What is the most common infectious disease?
- Are there any ways of prevention of infectious diseases?

- What examples of disease epidemics in ancient times and nowadays have you heard about?
- What scientists were the first to try to explain the cause of infectious diseases?
- Who was the first to discover the treatment against infections?
- What infectious diseases have been completely eradicated in the world?
- What disease incidence has decreased considerably due to efforts of health care providers?
- What are the methods to control infectious diseases?

**2. Прочитайте текст об инфекционных заболеваниях и озаглавьте его части.**

# Reading

## Infectious Diseases

Infectious diseases also known as **transmissible diseases** or **communicable diseases** differ from other diseases in a number of aspects.

**1.**

Most importantly, they are caused by **pathogens:** viruses, bacteria, fungi, protozoa, and proteins called prions. Another general word for these pathogens is microbes. Patients often refer to microbes as **germs** or **bugs**.

**2.**

**Communicability** is another factor which differentiates infectious diseases from non-infectious. Transmission of **pathogenic organisms** to other people, directly or indirectly, may lead to an **outbreak** or epidemic. Infectious diseases can be classified by their means of **transmission** or by the area of the body they attack. For example, tuberculosis is a ***respiratory*** disease and it is transmitted through **airborne** droplets spread by **sneezing** and **spitting**. Hepatitis is a ***gastrointestinal*** disease which is acquired through **contaminated** food and water. Syphilis is a **sexually transmitted** disease which travels to a new **host** via bodily fluids; and it is possible to pick up meningitis, which is an **inflammation** of the brain and spinal cord, by touching a contaminated object.

**3.**

Another way of looking at infectious diseases is to classify them according to the type of pathogen that causes them. A ***primary*** pathogen is one that can bring about a disease in a healthy host. Primary pathogens are responsible for illnesses such as HIV and malaria. ***Opportunistic*** pathogens, on the other hand, cause diseases in hosts with depressed **resistance**. They thrive on hospital wards and are responsible for **hospital acquired diseases** such as **MRSA** and **C. difficile.** These diseases are obviously of major concern to hospitals because the pathogens that cause them are always present. They are carried in the noses and on the skin of healthy people without them getting ill. They are very difficult to get rid of and can persist for months on surfaces, surviving standard cleaning procedures.

**4.**

Each infectious disease has its own specific signs and symptoms. General symptoms and signs of many infectious diseases include:

- Fever
- Loss of appetite
- **Fatigue**
- Muscle aches

Identifying an infectious disease involves a close examination of a patient followed by the **culturing** of infectious agents taken from the patient. **Cultures** are examined under a microscope and matched against known agents, and scans and x-rays can find clues in internal abnormalities caused by pathogens.

**5.**

Knowing what type of germ is causing the illness makes it easier for doctor to choose a proper treatment. Thus, certain types of bacteria are especially **susceptible** to particular classes of antibiotics. So, ***antibiotics*** are used for bacterial infections, while ***antiviral*** drugs have been developed to treat some viruses that cause AIDS, hepatitis B and C, influenza, *etc*. ***Anti-parasitics*** may be used for such diseases as malaria.

**6.**

Most infectious diseases have only minor complications, but some infections — such as pneumonia, AIDS or meningitis — can become life-threatening. To prevent them or decrease the risk of infecting yourself or others follow the next tips:

- **Wash your hands** before and after cooking, eating and after using the toilet.
- **Get vaccinated**
- **Stay home.** Don't go to work if you're vomiting, have diarrhoea or are running a fever.
- **Prepare food safely**
- **Don't share personal items** such as toothbrush, comb and razor.
- **Travel wisely.** Don't fly when you're ill.

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Расшифруйте следующие аббревиатуры:**

**MRSA** _____
**C. difficile** _____
**AIDS** _____
**HIV** _____
**MMR** _____
**STD** _____

**3. Подберите синонимы к следующим словам.**

infectious diseases = _____
pathogen = _____
outbreak = _____
immunity = _____
fatigue = _____
fever = _____
vaccination = _____
abnormality = _____
life-threatening = _____

**4. В тех случаях, когда у вас была простуда, как вы были инфицированы? Какие пути передачи инфекции вам знакомы?**

1. **droplet contact** (respiratory route) through coughs and sneezes, kissing, sharing cups, etc.
2. **faecal-oral transmission** – from contaminated food or water
3. **direct physical contact**, including sexual contact
4. **vertical transmission** – mother to child
5. **iatrogenic transmission** – due to medical procedures
6. **vector-borne** – carried by insects or other animals
7. **indirect contact** – by touching contaminated surfaces

**5. Соотнесите следующие болезни с путями их передачи, указанными в упр. 4.**

| | |
|---|---|
| **a.** measles | **g.** meningitis |
| **b.** chickenpox | **h.** MRSA |
| **c.** cholera | **i.** polio |
| **d.** HIV | **j.** rabies |
| **e.** influenza | **k.** syphilis |
| **f.** malaria | **l.** tuberculosis |

# Language Development

**1. Просмотрите текст об инфекионных болезнях и ответьте на вопросы.**

1. What are other terms for infectious diseases?
_____

2. What are infectious diseases caused by?
_____
_____

3. How are infectious diseases transmitted?
_____
_____

4. What factor makes infectious diseases especially dangerous and why?
_____
_____

5. What are opportunistic infections? What are they responsible for?
_____
_____

6. What are the most common signs and symptoms of infectious diseases?
_____
_____

7. What does identifying an infectious disease include?
_____
_____

8. What is the treatment of infectious diseases? What does it depend on?
_____
_____

9. What are methods of prevention of infectious diseases?
_____
_____

10. Give examples of infectious diseases.
_____
_____
_____

**2. a. Студент-медик выделил несколько слов в истории болезни. Прочитайте и запомните эти слова.**

| **Case 45** |
|---|
| A 24- year-old man presented with a **fever** which he had had for three days. On the third day he had had a severe attack of fever with sweating and **rigors**. The only past history of relevance was hepatitis four years earlier and **glandular fever** (infection with Epstein-Barr virus) at the age of 18 years. He had returned from Africa three weeks previously. |

fever = **pyrexia** (also remember PUO – **pyrexia of unknown origin)**
fever also known as **temperature –** I've got a temperature".
adjective = **feverish/febrile** and **pyrexial**
opposites = **afebrile/apyrexial**
Some symptoms of fever
**sweating**
**rigors** (severe shivering and sensation of coldness, also known as **chills**)

**b. Завершите описание клинического случая больного, предсталенное в упр. 2. a.**

| **Case 45** |
|---|
| On examination, he looked unwell. His pulse rate was 100/min. He had a palpable spleen. The combination of 1. _____ and 2. _____ in a patient who has recently returned from Africa strongly suggests a diagnosis of malaria. The 3. _____ period is usually 10-14 days. In this case, the patient admitted he had not been taking 4. _____ regularly. The diagnosis was confirmed by the presence of 5. _____in his blood film. |

**c. Закончите следующие предложения.**

1. An infection which can be treated successfully with antibiotics is _____ .
2. Another word for an epidemic is an _____
3. Bacteria and viruses are examples of _____.
4. Someone whose temperature is normal is _____ .
5. The common infection with Epstein-Barr virus is known as _____ .

**3. a. Прочитайте информацию об источниках и путях распространения инфекции, обращая внимание на выделенные термины.**

### Source and Spread of Infection

Infection may originate from the patient (**endogenous**), usually from skin, nasopharynx or bowel, or from outside sources (**exogenous**), often another person who may be either suffering from an infection or **carrying** a pathogenic microorganism. **Carriers** are usually healthy and may harbour the organism in the throat (for example diphtheria), bowel (salmonella), or blood (hepatitis B or HIV). Non-human sources of infection include water (*e.g.* cholera), milk (*e.g.* tuberculosis), food (*e.g.* botulism), animals (*e.g.* rabies), birds (*e.g.* psittacosis) and also the soil (*e.g.* legionella – **Legionnaires' disease**).

The **incubation period** is the period between the invasion of the tissues by pathogens and the appearance of clinical features of infection. The **period of infectivity** is the time that the patient is infectious to others.

**b. Ответьте на вопросы.**

1. What infectious diseases are mentioned in the text?
2. How may microorganisms be classified?
3. Where may the carriers harbour pathogens?
4. What is the difference between the incubation period and period of infectivity?

**5. Проект.**

**Study the following PPT presentation about measles:**

*http://www.powershow.com/view/12cec2-ODYxN/Measles_powerpoint_ppt_presentation*

**Analyse the structure of this presentation. Is it useful? What would you add (or delete) to make it better?**

**Research one of these infectious diseases. Make a presentation of your own: include the most interesting and up-to-date information.**

| | | |
|---|---|---|
| cholera | malaria | yellow fever |
| influenza | meningitis | plague |
| leprosy | tuberculosis | elephantiasis |

# Grammar Point

## Future Active Tenses

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar_list/zeitformen.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/tenses/will_future_mix.htm

https://www.englisch-hilfen.de/en/exercises/tenses/going_to_future_mix.htm

https://www.englisch-hilfen.de/en/exercises/tenses/future_perfect_statements.htm

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I know the main infectious diseases
- I can describe the main symptoms of infectious diseases
- I know how to fight and prevent infectious diseases
- I can use Future Active Tenses

# Key Words

airborne /ˈɛəblən/ *adj*
bug /bʌg/ *n*
carrier /ˈkærɪə/ *n*
chickenpox /ˈtʃɪkɪnpɔks/ *n* = varicella /ˌværɪˈselə/ *n*
chill /tʃɪl/ *n*
communicable /kəˈmjuːnɪkəbl/ *adj*
contamination /kənˌtæmɪˈneɪʃən/ *n*
culture**/**culturing /ˈkʌltʃə(rɪŋ)/ *n*
droplet contact /ˈdrɔplɪt ˈkɔntækt/
faecal-oral /ˈfiːkəl ˈɔrəl/ transmission
fatigue /fəˈtiːg/ *n*
fever /ˈfiːvə/ *n* = pyrexia /paɪˈrɛksɪə/ *n*
full-blown /ˈfʊlbləʊn/ *adj*
germ /dʒɜːm/ *n*
hospital acquired diseases /ˈhɔspɪtəl əˈkwaɪəd dɪˈziːz/
host /həʊst/ *n*
inflammation /ˌɪnfləˈmeɪʃən/ *n*
influenza /ˌɪnfluˈenzə/ *n* = flu /fluː/ *n*
malaria /məˈleərɪə/ *n*
measles /ˈmiːzl / *n* = rubeola /ruˈbiːələ/ *n*
meningitis /ˌmenɪnˈdʒaɪtɪs/ *n*
morbid /ˈmɔːbɪd/ *adj*
MRSA /ɛmɑːrɛsˈeɪ/ (methicillin-resistant Staphylococcus aureus)
opportunistic /ˌɔpətjuːˈnɪstɪk/ *adj*
outbreak /ˈaʊtbreɪk/ *n*
persistent /pəˈsɪstənt/ *n*
rabies /ˈreɪbiːz/ *n*
resistance /rɪˈzɪstəns/ *n*
rigors /ˈrɪgə/ *n*
sneezing /ˈsniːzɪŋ/ *n*
spitting /ˈspɪtɪŋ/ *n*
susceptible /səˈseptɪbl/ *adj*
sweating /ˈswetɪŋ/ *n*
transmission /trænzˈmɪʃən/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT III. INFLUENZA

**In this unit**

- describing the symptoms of influenza
- determining the sources of influenza
- speaking about prevention of flu
- *Present Passive Tenses*

## Lead-in

**1. Изучите список самых печально известных и смертоносных эпидемий и сраните их.**

- What was the most famous and lethal outbreak of flu in the world? How many people did it kill?
- What was the mortality rate in the least severe pandemic?
- What type of virus caused flu pandemic in 2009? How is this virus strain commonly referred to?
- What in your opinion helped reduce mortality of people in later pandemics?

**2. Прочитайте текст о гриппе и подготовьтесь к обсуждению причин, симптомов и методов профилактики этого заболевания.**

| Known Flu Pandemics | | | | | |
|---|---|---|---|---|---|
| **Name of pandemic** | **Date** | **Deaths** | **Case fatality rate** | **Subtype involved** | **Pandemic severity index** |
| **Asiatic (Russian) flu** | 1889-1890 | 1 million | 0.15% | possibly H3N8 | NA |
| **1918 flu pandemic (Spanish flu)** | 1918-1920 | 20 to 100 million | 2% | H1N1 | 5 |
| **Asian flu** | 1957-1958 | 1 to 1.5 million | 0.13% | H2N2 | 2 |
| **Hong Kong flu** | 1968-1969 | 0.75 to 1 million | <0.1% | H3N2 | 2 |
| **2009 flu pandemic** | 2009-2010 | 18,000 | 0.03% | H1N1 swine flu | NA |

A *pandemic* is an epidemic that spreads to many different countries.
A **pandemic** can start when the following three conditions are met:

- a new disease appears
- the agent infects humans causing serious illness
- the agent spreads easily among humans.

*The first convincing record of an influenza pandemic was of an outbreak in 1580, which began in Russia and spread to Europe via Africa.*

*In Rome, over 8,000 people were killed, and several Spanish cities were almost wiped out.*

# Reading

## Influenza

### What is the flu?

Influenza, commonly known as “the flu”, is a **contagious** respiratory illness caused by influenza viruses. It can cause **mild** to **severe** illness, and at times can lead to death. Some people, such as older people, young children, and people with certain health conditions, are at high risk for serious flu **complications**.

### How is the flu spread?

The flu is spread in droplets released by coughing and sneezing. It usually spreads from person to person, though occasionally people may be infected by touching something with virus on it and then touching their mouth or nose.

### What are the symptoms of the flu?

The flu usually starts suddenly and may include these symptoms:

- Fever or feeling feverish/**chills**
- Cough
- Sore throat
- Runny or **stuffy nose**
- Muscle or body aches
- Headaches
- Fatigue (tiredness)
- Some people may have vomiting and **diarrhea**, though this is more common in children than adults.

It's important to note that not everyone with flu will have a fever.

It can be difficult to **distinguish** between the common **cold** and influenza in the early stages of these infections, but a flu can be identified by a high fever with a sudden **onset** and extreme fatigue.

### What are the complications associated with the flu?

Some of the complications caused by flu include pneumonia, dehydration, and **worsening** of chronic medical conditions, such as heart or lung disease, asthma or diabetes. Children may get sinus problems and ear infections.

### How to protect oneself against the flu?

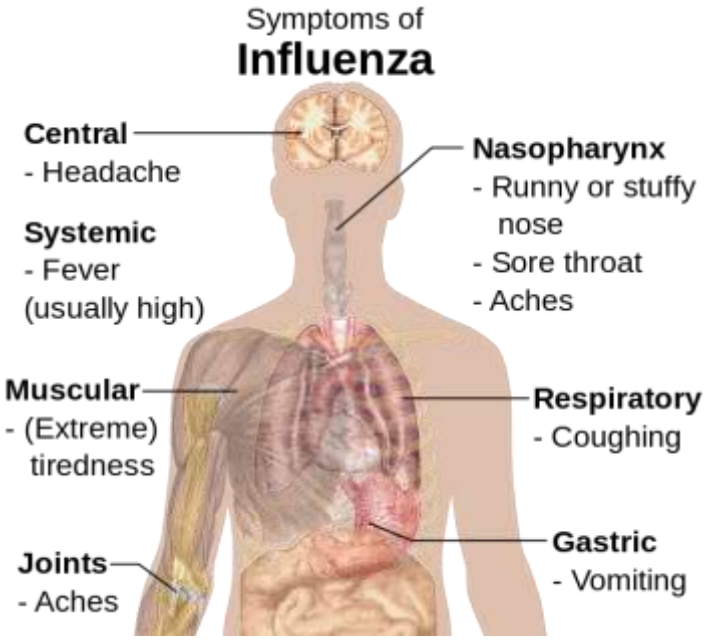
The influenza vaccine is recommended by the WHO for high-risk groups, such as children, the elderly, health care workers, and people who have chronic illnesses such as asthma, diabetes, heart disease.

Reasonably effective ways to reduce the transmission of influenza include good personal health and hygiene habits such as: not touching your eyes, nose or mouth; frequent hand washing (with soap and water, or with alcohol-based hand rubs); covering coughs and sneezes; avoiding close contact with sick people; and staying home yourself if you are sick.

### Can the flu be treated?

People with the flu are advised to get plenty of rest, drink plenty of liquids, avoid using alcohol and tobacco and, if necessary, take medications such as paracetamol to relieve the fever and muscle aches associated with the flu.

Antiviral medication may be effective, but some **strains** of influenza can show resistance to the standard antiviral drugs and pharmaceutical companies have to develop new vaccines that will provide the best **immunity** against these strains.



# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Найдите определения для данных слов.**

| | |
|---|---|
| **1.** contagious (of a disease) | **a.** a type of plant, virus or bacterium whose characte-ristics are different from others of the same group |
| **2.** fever | **b.** rigors |
| **3.** chills | **c.** pyrexia |
| **4.** strain | **d.** spreading by direct or indirect contact |
| **5.** diarrhea | **e.** a large amount |
| **6.** to distinguish | **f.** an abnormally frequent discharge of fluid fecal matter from the bowel |
| **7.** plenty | **g.** to recognize the difference |
| **8.** complication | **h.** the beginning of a disease |
| **9.** onset | **i.** an unfavorable evolution of a disease |

**3. Заполните пробелы словами из таблицы в упр 2.**

1. Some diseases of the respiratory tract are hard to _____.
2. Influenza is caused by a highly _____ virus that is spread by coughs and sneezes.
3. Elderly people, pregnant women can develop serious _____ due to influenza.
4. The _____ of the disease was marked by attacks of vomiting and _____.
5. Influenza pandemics have occurred four times in the past 100 years and caused _____ of deaths.
6. Certain _____of bacteria are especially susceptible to particular classes of antibiotics.

**4. Подберите синонимы к словам.**

| | |
|---|---|
| **1.** contagious | **a.** blocked |
| **2.** sore | **b.** shivering |
| **3.** chill | **c.** painful; aching; tender |
| **4.** stuffy | **d.** communicable |
| **5.** to distinguish | **e.** to make less |
| **6.** to reduce | **f.** to differentiate |
| **7.** ache | **g.** tiredness |
| **8.** fatigue | **h.** pain |
| **9.** to relieve | **i.** to connect |
| **10.** to associate | **j.** host |
| **11.** carrier | **k.** to free from pain or discomfort |

**5. Соотнесите слова в столбике А с их антонимами в столбике В.**

| **A.** | | **B.** | |
|---|---|---|---|
| | **1.** mild | | **a.** rare |
| | **2.** diarrhea | | **b.** severe |
| | **3.** to distinguish | | **c.** constipation |
| | **4.** worsening | | **d.** to escape recognition |
| | **5.** common | | **e.** improvement |
| | **6.** include | | **f.** exclude |

**6. Прочитайте текст, заполните пробелы словами из таблицы. Ответьте на вопрос: Какие типы вирусов, вызывающие грипп, вы знаете?**

| |
|---|
| Transmitted, included, outbreaks, caused, common, pandemic recognized, mutates, strains, infects |

Flu viruses are divided into three broad categories: **influenza A, B or C**. Influenza A is the most _____1 type**. H1N1** flu is a variety of influenza A. There are many different _____ 2 of H1N1 flu. Varieties of influenza A (H1N1), influenza A (H3N2) and influenza B are _____3 in each year's flu vaccine. This year, the vaccine protects against the strain of H1N1 flu that _____4 the 2009 pandemic.

**Bird flu** is caused by a type of influenza virus that rarely _____5 humans. But when bird flu does strike humans, it's often deadly. More than half the people who become infected with bird flu die of the disease. In recent years, _____6 of bird flu have occurred in Asia, Africa and parts of Europe. Health officials worry that a global outbreak could occur if a bird flu virus _____7 into a form that transmits more easily from person to person.

The term **swine flu** refers to influenza in pigs. Occasionally, pigs transmit influenza viruses to people, mainly to farm workers and veterinarians. Less often, someone infected occupationally passes the infection to others.

The human respiratory infection caused by the influenza virus H1N1 — popularly known as swine flu — was first _____8 in spring 2009. In August 2010 the World Health Organization declared the infection a global_____9. H1N1 is still circulating in humans as a seasonal flu virus and is included in the seasonal flu vaccine. Another strain of swine flu — H3N2 variant — has also made its way into humans. This flu contains a gene from the H1N1 virus. The virus has only been _____10 through human exposure to swine, not from human to human.

# Language Development

**1. Просмотрите текст и ответьте на вопросы.**

1. What kind of disease is influenza?
_____

2. How is the flu spread?
_____
_____

3. What are the symptoms of the flu?
_____
_____

4. What are the complications associated with the flu?
_____
_____

5. What is the treatment of influenza?
_____
_____

6. What are methods of prevention of influenza?
_____
_____

**2. Соотнесите неофициальные (разговорные) и официальные названия инфекционных заболеваний.**

| Informal | Formal |
|---|---|
| **1.** *Chickenpox* is the same as | **a.** allergic rhinitis |
| **2.** *German measles* is the same as | **b.** infectious parotitis |
| **3.** The *flu* is the same as | **c.** coryza |
| **4.** A *cold* is the same as | **d.** influenza |
| **5.** *Hay fever* is the same as | **e.** rubella |
| **6.** *Measles* | **f.** rubeola |
| **7.** *Mumps* | **g.** pertussis |
| **8.** *Whooping cough* is the same as | **h.** varicella |

**3.a. Прочитайте текст, будьте готовы его обсудить.**

**Pandemics and Tamiflu**

When someone who has flu sneezes nearby, you take tiny droplets of their saliva into your lungs. The droplets contain viruses that are looking for a new home. They get into your lungs and then into your blood, and can quickly take over your whole body, using it as a factory in which they can reproduce.

At any time, a deadly bacterium or virus can become very successful and spread across the world, killing millions of human beings. When this happens it is called a “pandemic”.

There was a pandemic in 1918. An influenza virus called H1N1, or “Spanish flu”, killed between 50 to 100 million people. More people died from H1N1 than were killed in the First World War.

A letter from a doctor in a military camp in 1918 describes the situation:

*“ It is only a few hours until death comes. It is horrible. We have been averaging about 100 deaths per day. We have lost many nurses and doctors. Special trains carry away the dead. For several days there were no coffins and the bodies piled up”.*

Since 1918 the H1N1 virus has mutated. Now there is a mutation called H5N1. When this mutation first appeared in China in 1996, there was a desperate search for a medicine to deal with it. The pharmaceutical company Roche came up with the drug called Tamiflu.

Tamiflu does not kill H5N1, but stops it making copies of itself. If given early enough, vaccinations of Tamiflu could perhaps save many lives. However, the virus will continue to mutate, and might become resistant to Tamiflu. The next mutation may already be with us by the time you’re reading this!

**3 b. Прочитайте утверждения и определите, какие из них верны (T), а где допущены ошибки (F). Исправьте неверные утверждения.**

1. A pandemic is a type of virus. _____
2. Viruses reproduce outside your body. _____
3. More people died from Spanish flu than were killed in the First World War. _____
4. H1N1 is the name of a pandemic. _____ .
5. H5N1 is an antiviral drug. _____
6. Tamiflu stops H5N1 spreading. _____

**3c. Ответьте на вопросы.**

1. Can you name any deadly infectious diseases that have spread around the world?
2. What is the latest news on bird flu?
3. How does infection get into your body?
4. What do you know about “Spanish flu”?
5. How did the military doctor describe the situation with the flu pandemic in 1918?
6. What medicine against flu was discovered in 1996? How does it act? Is it really effective?

# Grammar Point

## Present Passive Tenses

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/active_passive.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/active_passive/active_or_passive.htm

https://www.englisch-hilfen.de/en/exercises/active_passive/form_sentences_simple_present.htm

https://www.englisch-hilfen.de/en/exercises/active_passive/sentences_present_progressive.htm

**4. Проект.**
**You are working as a family physician. Today you are going to see a family with two children (a 6-year-old girl and a 12-year-old boy) who are about to travel to India in two months. Search the web and make a list of recommendations for the travellers (not less than 5-7 items).**

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can describe the symptoms of influenza
- I can list the sources of influenza
- I can talk about about prevention of flu

I can use Present Passive Tenses

# Key Words

a cold /kqʊld/ *n*, *мж.* common cold
associate /q`sqʊSlɐlt/ *v*
chickenpox /`ClklnpOks/ *n* = varicella /ˌvɐrl`sɐlq/ *n*
chill /Cll/ *n*
complication /kOmpll`kɐlSn/ *n*
contagious /kqn`tɐlGqs/ *adj*
diarrhea /"daIq`rlq/ *n*
distinguish /dI`stlNgwlS/ *v*
german measles /`GWmqn `mJzlz/ *n* = rubella /ru`bɐlq/ *n*
immunity /I`mjƭlnItI/ *n*
measles /`mJzlz / *n* = rubeola /ru`bJqlq/ *n*
mild /maIld/ *adj*
mumps /mƩmps/ *n* = infectious parotitis /In`ʃɐkSqs pɐrq`taItIs/ *n*
onset /`Onsqt/ *n*
severe /sI`vlq/ *adj*
strain /strɐln/ *n*
stuffy nose /`stƩfI nqʊz/
whooping cough /`hƭpIN kOf/ *n* = pertussis /pq`tƩsIs/ *n*
worsen /`wWsqn/ *v*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT IV. THE CARDIOVASCULAR SYSTEM

**In this unit**

- describing the structure of the cardiovascular system
- talking about the blood vessels and circulation of blood
- *Past Passive Tenses*

## Lead-in

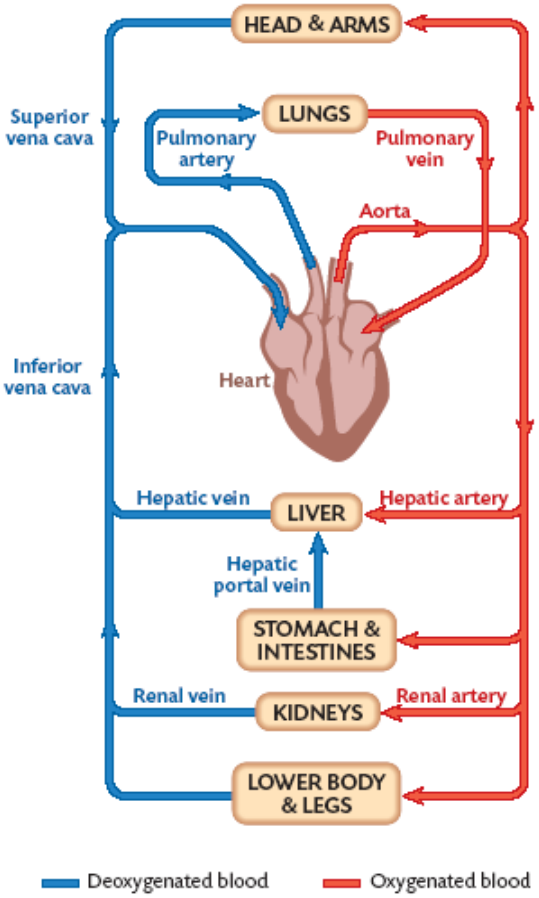
**1. Интересные факты**

- If all of the blood vessels in an average adult were strung together end to end, they would reach at least 60,000 miles long, more than twice the distance around the Earth's equator. The capillaries alone make up 60 percent of that total.
- Every minute, 5 litres of blood is pumped through the pulmonary capillaries and around the alveoli.
- Overall, blood takes approximately one second to pass through the lung capillaries, during which time it becomes nearly 100 percent saturated with oxygen, while losing all of its excess carbon dioxide.
- At any given time, the veins and venules typically hold about two thirds of the blood flowing through the body.
- As the heart contracts and blood rushes into the aorta, it is travelling at a speed of about 20 centimetres per second.
- Scientists have estimated that it takes about 30 seconds for a given portion of the blood to complete the entire cycle: from lungs to heart to body, back to the heart and out to the lungs.
- **One** drop of blood contains a half a drop of plasma, **5 million** red blood cells, **10 thousand** white blood cells and **250 thousand** platelets.

**2. Прочитайте текст о сердечно-сосудистой системе. Выберите из списка утверждений A-E те, что лучше всего отражают содержание каждой части (1-4 ) текста. Здесь есть одно лишнее утверждение, которое вам не понадобится.**

1. Types of vessels
2. Systems of blood circulation
3. The structure of the blood vessel wall
4. Subdivisions of the pulmonary system
5. Subdivisions of the general system

**3. Рассмотрите рисунок и обозначьте системы циркуляции крови красным и синим карандашом, чтобы показать артериальное и венозное кровообращение соответственно.**



*As the arteries grow hard, the heart grows soft.*
*H. L. Mencken*

*You have thousands of miles of blood vessels in your body. You could wrap your blood vessels around the equator **TWICE!**.*

# Reading

## The Cardiovascular System

Blood circulates throughout the body in the **cardiovascular system,** which consists of the heart and the blood vessels. This system forms a continuous circuit that delivers oxygen and nutrients to all cells and carries away waste products.

**1.**

When the blood leaves the heart it flows smoothly in tubes called **blood vessels**. First, the blood flows into tubes called **arteries**. The arteries leaving the heart are thick tubes. The largest artery of the body is **aorta** which is 2.54 cm wide. But the arteries soon branch again and again to form smaller and smaller tubes. The smallest blood vessels, called **capillaries**, form a fine **network** of tiny vessels throughout the body. As the blood flows through the capillaries, it delivers oxygen to nearby cells and also collects carbon dioxide waste from the body cells. The capillaries join together to form small **veins**. The veins, in turn, unite with each other to form larger veins The two largest veins are the **superior vena cava**, which receives blood from the upper body, and the **inferior vena cava**, which receives blood from the lower body region. Then both venae cavae empty the blood into the heart.

So the blood vessels of the body carry blood in a circle: moving away from the heart in arteries, travelling to various parts of the body in capillaries, and going back to the heart in veins.

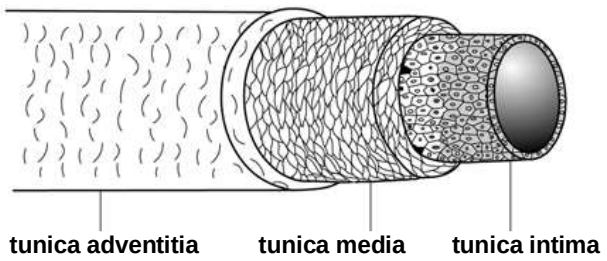
**2.**

Arteries and veins are made of three layers of tissue (See the picture on the right). These tissue layers provide strength and **flexibility**. They are:

The **tunica intima** is the innermost layer. It consists of endothelial tissue that lines the blood vessel.

The **tunica media** is the middle layer. It is made up of smooth muscle cells and elastic tissue. This is the thickest layer in arteries.

The **tunica adventitia** is the outermost layer made up of fibrous connective tissue, which adds strength and support to vessels.




**3.**

The human circulatory system is really a two-part system. Its purpose is to bring oxygen-bearing blood to all the tissues of the body. When the heart contracts it pushes the blood out into two major loops or cycles. In the **systemic loop** (or **systemic circulation**), the blood circulates into the body's systems, bringing oxygen to all its organs, structures and tissues and collecting carbon dioxide waste. In the **pulmonary loop** (or **pulmonary circulation**), the blood circulates to and from the lungs, to release the carbon dioxide and pick up new oxygen. The systemic cycle is controlled by the left side of the heart, the pulmonary cycle by the right side of the heart.

**4.**

The **systemic** circulation can be divided into three subsystems:

- **coronary circulation** - supplies blood to the heart.
- **renal circulation** - supplies blood to the kidneys. Nearly one-forth of the blood that is pumped into the aorta by the left ventricle flows to the kidneys. The kidneys filter waste from the blood.
- **hepatic portal circulation.** Nutrients are picked up by capillaries in the small intestines and are transported to the liver. Excess nutrients are stored in the liver for future needs. The liver receives oxygenated blood from a large artery that branches off the aorta.

Since all the body's systems are **interconnected** and depend on one another, it is not surprising that organs from other systems rely on the blood and circular system to function well.

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Соотнесите термины с их определениями:**

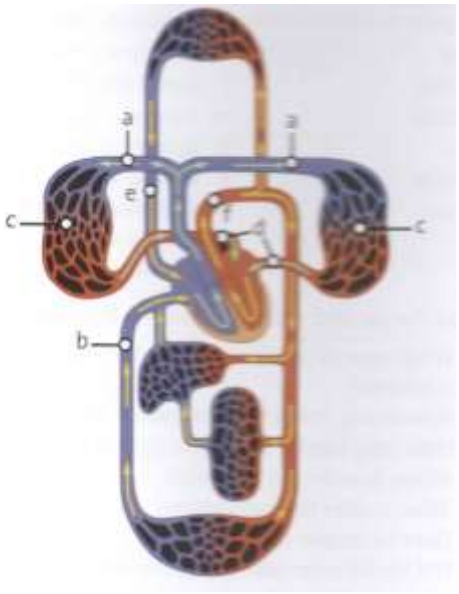
| | |
|---|---|
| **1.** aorta | **a.** A vessel that carries blood low in oxygen back to the heart. |
| **2.** artery | **b.** A microscopic blood vessel through which materials are exchanged between the blood and the tissues |
| **3.** capillary | **c.** A vessel that carries blood away from the heart |
| **4.** cardio-vascular system | **d.** The system of vessels that carries blood from the right side of the heart to the lungs to be oxygenated and then back to the left side of the heart |
| **5**. pulmonary circulation | **e.** The system of vessels that carries oxygenated blood from the left side of the heart to all tissues except the lungs and returns deoxygenated blood to the right side of the heart |
| **6.** systemic circulation | **f.** The heart and blood vessels considered as a whole. |
| **7.** vein | **g.** The largest artery |

**3. Заполните пробелы, используя активную лексику урока.**

Blood travels round the body in blood _____ 1. The _____2 carry blood from the heart to all parts of the body while blood returns to the heart in _____3.
The largest artery is the _____4.
The microscopic vessels through which materials
are exchanged between the blood and the tissues are the _____5.
The pulmonary artery carries blood from the heart to the _____6 while the aorta carries blood to all parts of the body from the _____7 .
Blood carried in the systemic arteries is _____ _____8 but in the pulmonary artery it is not.

**4. Завершите описания 1-6, используя слова в таблице, и соотнесите их с буквами a-f на рисунке.**

| | | |
|---|---|---|
| deoxygenated | oxygen | oxygenated |




1. The aorta carries _____ blood from the heart to all parts of the body. ____

2. The pulmonary veins carry _____-rich blood from the lungs to the left side of the heart. They are the only veins that carry _____ blood. ____

3. The pulmonary arteries carry blood to the lungs. They are the only arteries that carry _____ blood. ____

4. The superior vena cava returns _____ blood from the upper part of the body to the heart. ____

5. The inferior vena cava returns _____ blood from the lower part of the body to the heart. ____

6. The network of vessels in the lungs lose carbon dioxide and absorb _____

**5. Образуйте прилагательные от следующих существительных.**

| |
|---|
| vessel - |
| vein - |
| artery - |
| aorta - |
| circulation - |

# Language Development

**1. Какие предложения верны (T), а где допущены ошибки (F)? Исправьте неверные утверждения.**

1. The role of the circulatory system in transport of many substances is, in fact, insignificant. ___
2. The systemic circuit pumps blood to the lungs. ___
3. An artery is a vessel that carries blood back to the heart. _____
4. Blood vessels transport blood with nutrients in one direction only, *i.e.,* to cells. _____
5. Veins carry oxygen from the tissue cells back to the heart. ____
6. Carbon dioxide is produced in cells . ____
7. Waste products must be excreted from the organism. ____
8. From the lungs deoxygenated blood returns to the left heart. _____

**2. Прочитайте информацию о портальном кровообращении печени и составьте 5 вопросов различного типа ко всему тексту.**

The veins of the hepatic portal circulation drain the digestive organs, spleen, and pancreas and deliver the blood to the liver via hepatic portal vein. Liver cleans the blood during hepatic portal circulation. The portal venous system is responsible for directing blood from parts of the gastrointestinal tract to the liver. Substances absorbed in the small intestine travel first to the liver for processing before continuing to the heart. Not all of the gastrointestinal tract is part of this system. The system extends from about the lower portion of the esophagus to the upper part of the anal canal. It also includes venous drainage from the spleen and pancreas.

_____

_____

**3. Просмотрите текст о сердечнососудистой системе и ответьте на вопросы.**

1. What are the main organs of the cardiovascular system?

_____
_____

2. What types of blood vessels do you know?

_____
_____

3. What is the difference between superior vena cava and inferior vena cava?

_____
_____

4. What are arteries and veins made of?

_____
_____

5. What parts does the human circulatory system consist of? How does blood circulate in each cycle (loop)?

_____
_____

6. What subsystems is the **systemic** circulation divided into?

_____
_____

7. What is the role of the circulatory system in the human body?

_____
_____

8. How are the structures of an artery, vein and capillary adapted to their functions?

_____
_____

9. Why does oxygen-rich and oxygen-poor blood never mix in human bodies?

_____
_____
_____
_____

# Grammar Point

### Past Passive Tenses

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/active_passive.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/active_passive/form_sentences_simple_past.htm

https://www.englisch-hilfen.de/en/exercises/active_passive/passive_tenses_sentences.htm

https://www.englisch-hilfen.de/en/exercises/active_passive/questions2.htm

**4. Проект.**

**Find out which instrumental investigations are used to study the cardiovascular system. Choose one of them and imagine that you should explain to the patient how it is performed. Use verbs in passive voice (not less than 12-15 sentences).**

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can talk about the structure of the cardiovascular system
- I know the types and structure of blood vessels and understand how blood circulates around the body
- I can use *Past Passive Tenses*

# Key Words

aorta /eɪ`ɒtə/ *n*
artery /`ɑtərɪ/ *n*
capillary /kə`pɪlərɪ/ *n*
cardiovascular system /ˌkɑdɪəʊ`væskjʊlə `sɪstəm/
coronary / `kɒrənərɪ / *n*
flexibility /ˌfleksɪ`bɪlɪtɪ/ *n*
inferior /ɪn`fɪərɪə/ *adj*
vena cava /`vɪnə `keɪvə/
interconnected /ɪntəkə`nektɪd/ *adj*
loop /lʊp/ *n*
network /`netwɜk/ *n*
portal circulation /`pɔtəl .sɜkjʊ`leɪʃən/
pulmonary circulation /`pʌlmənərɪ .sɜkjʊ`leɪʃən/
renal /`rɪnəl/ *adj*
superior /sjʊ`pɪərɪə/ *adj*
systemic circulation /sɪs`temɪk .sɜkjʊ`leɪʃən/
tunica adventitia /`tjʊnɪkə ˌædvən`tɪʃə/
tunica intima /`tjʊnɪkə `ɪntɪmə/
tunica media /`tjʊnɪkə `mɪdɪə/
vein /veɪn/ *n*
vessel /`vesəl/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT V. THE HEART

**In this unit**

- talking about anatomical structure of the heart
- talking about functions of the heart in the cardiovascular system
- *Future Passive Tenses*

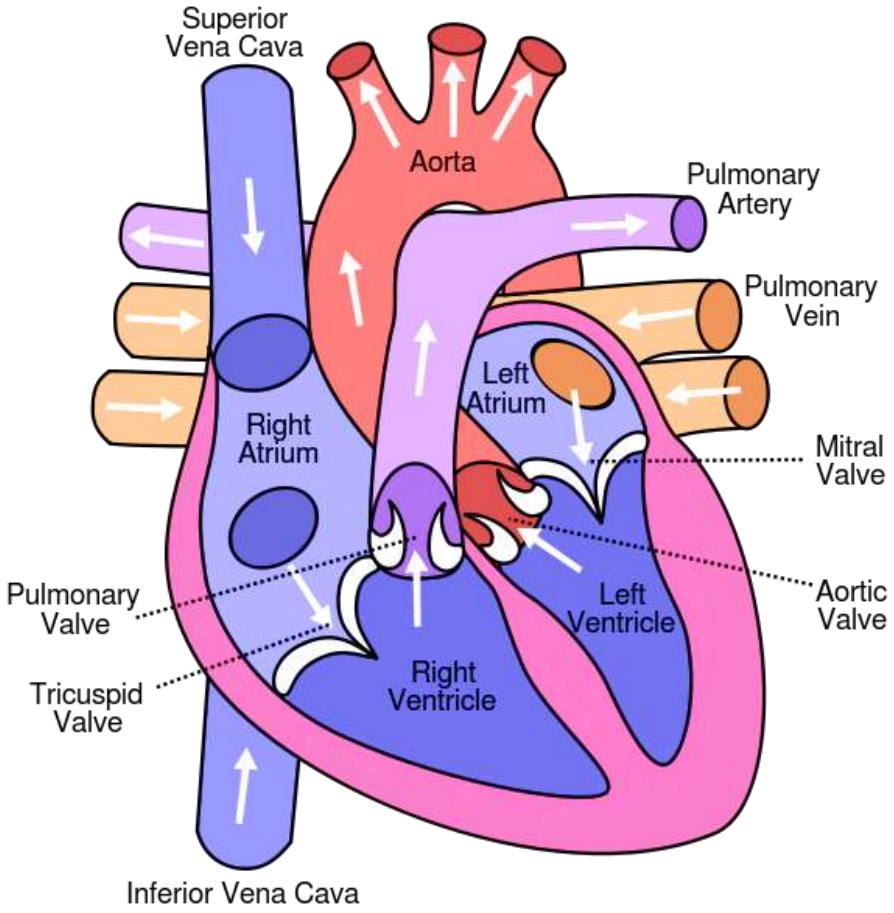
## Lead-in

**1. Интересные факты**

- In the average adult, the heart weighs about 310 grams. In any given person, it's about the size of his or her fist.
- The heart beats an average of 72 times a minute with a typical at rest volume of 75 ml of blood pumped with each beat. Using those figures, a 75-year-old's heart has contracted more than 2.8 billion times and pumped more than 212 million liters of blood in his or her lifetime.
- When a person is resting, the left ventricle pumps about 4–7 liters of blood every minute. In a well-trained athlete who is doing strenuous exercise, that amount can rise to almost 30 liters per minute
- Heart rate changes greatly during child development. The typical heart rate in a newborn is 130 beats per minute (bpm). It drops to 100 bpm by the time the child reaches 3 years old, 90 at 8 years old, and 85 at 12 years old.
- The English physician William Harvey was the first to correctly describe how the heart pumps blood around the body.

**2. Прочитайте текст о сердце. Озаглавьте каждую его часть.**

1. _____
2. _____
3. _____
4. _____
5. _____.



*The Arab physician Ibn Al-Nafis (1213-1288) was the first person to realize that blood passed from the right side to the left side of the heart via the lungs.*
*Keep your heart healthy...it's going to have to beat about **3 BILLION times** during your lifetime!*

*The Greeks believed that the heart held a person's spirit, the Chinese believed it was the centre of happiness, and the Egyptians thought the emotions and intellect came from the heart.*

# Reading

## The Heart: a Living Pump

The centre of the circulatory system is the **heart**, which is the main pumping mechanism. This organ works constantly over the course of a lifetime, pumping blood to the lungs in the pulmonary circulation and to all other body tissues in the systemic circulation.

**1.**

The heart is in the middle of the chest located between the two lungs with its point or **apex** directed toward the left. The thick muscle layer of the heart wall is the **myocardium.** The heart is contained within a fibrous sac, the **pericardium.**

The heart is held in place by the blood vessels that carry the blood to and from its chambers. There are actually four chambers (spaces) inside the heart. Each top chamber is called an **atrium** (plural: **atria**). The bottom chambers are called **ventricles**. The atria are often referred to as holding chambers, while the ventricles are called pumping chambers. The right and left sides of the heart are separated by a thick wall, known as the **septum.**

**2.**

Blood is kept moving in a forward direction by one-way **valves.** The valve in the septum between the right atrium and ventricle is the **tricuspid valve**; the valve in the septum between the left atrium and ventricle is the bicuspid valve usually called the **mitral valve**. The valves leading into the pulmonary artery and the aorta are described as **semilunar valves.**

**3.**

The blood enters the right atrium, one of the upper receiving chambers of the heart. Blood is pumped through the tricuspid valve into the right ventricle. The right and left ventricles are larger than the right and left atria because they are responsible for the pumping action of the heart. The right ventricle pumps de-oxygenated blood away from the heart through the T-shaped pulmonary artery.

By the time blood arrives in the lungs the body has taken out most of the oxygen and made use of it for tissue function. In a healthy heart, the blood flows efficiently through the heart to the lungs, which re-oxygenate the blood and return it to the heart through the pulmonary vein. Oxygenated blood enters the heart through the left atrium and is pumped to the left ventricle. The cardiac cycle relies on the efficiency of four valves between the atria, the ventricles and the pulmonary blood vessels. These valves open to let in sufficient blood flow to fill each heart chamber and then shut to prevent the backflow of blood. Irregularities in blood flow because of blockage in the blood vessels can lead to heart disease.

**4.**

As the heart functions it produces **heart sounds**. The loudest of these, the familiar lubb and dupp that can be heard through the chest wall, are produced by alternate closing of the valves. The first heart sound (S1) is heard when the valves
between the chambers close. The second heart sound (S2) is produced when the valves leading into the aorta and pulmonary artery close. Any sound made as the heart functions normally is termed a **functional murmur.** A **heart murmur** is an abnormal sound of the heart. It is usually an indication of damaged valves.

**5.**

Each contraction of the heart, termed **systole** , is followed by a relaxation phase, **diastole**, during which the chambers fill. Each time the heart beats, both atria contract (**atrial systole)** and immediately thereafter both ventricles contract (**ventricular systole)**. When the atria are contracting the ventricles are relaxing. This is called **ventricular diastole**. Likewise, when the ventricles are contracting the atria are relaxing. This is called **atrial diastole**.

The wave of increased pressure produced in the **vessels** each time the ventricles contract is the **pulse.** In healthy people the normal (resting) **heart rate** is about 72 beats per minute, but it can go much higher during strenuous exercise.

# Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Соотнесите термины в таблице с их определениями. Первое выражение сделано как образец.**

| heart, atrium, diastole, septum, ventricle, valve, myocardium, pericardium, blood pressure, systole, |
|---|

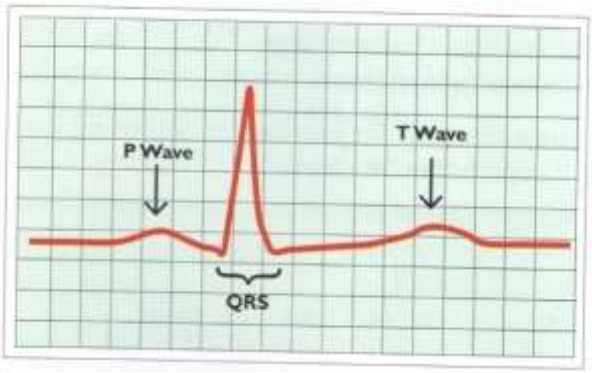
1. __*heart*_____ = the muscular organ with four chambers that contracts rhythmically to propel blood through vessels to all parts of the body.
2. _____ = the force exerted by blood against the wall of a vessel.
3. _____ = the thick middle layer of the heart wall composed of cardiac muscle.
4. _____ = one of the two upper receiving chambers of the heart.
5. _____ = the fibrous sac that surrounds the heart.
6. _____ = the relaxation phase of the heartbeat cycle.
7. _____ = a wall dividing two cavities such as the chambers of the heart.
8. _____ = one of the two lower pumping chambers of the heart.
9. _____ = the contraction phase of the heartbeat cycle.
10. _____ = a structure that keeps fluid flowing in a forward direction.

**3. Соотнесите глаголы в первой таблице с соответствующими существительными во второй таблице и составьте предложения с полученными словосочетаниями.**

| contract, pass, dilate, bring, regulate, pump, vary, beat, compose, work, consists of, serve, discharge, receive, enter, act, send |
|---|

| the heart | the blood | the artery |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

**4. a. Посмотрите на ЭКГ. Попытайтесь объяснить, что происходит с сердцем в точках P, QRS, and T.**




**4 b. Заполните пробелы в тексте, используя глаголы из таблицы. Изменяйте их форму, где это необходимо.**

| | | | |
|---|---|---|---|
| cause | fill | push | relax |
| contract | force | reach | return |

1. A heartbeat has three phases. In the first, diastole, the heart _____ 1 and blood _____ 2 the atria. This appears as a flat line on the ECG.

2. In the second phase, an electrical impulse _____ 3 the atria to _____ 4 and _____ 5 blood into the ventricles. This is point P on the ECG.

3. In the third phase, the electrical impulse _____ 6 the ventricles. These contract _____ 7 blood to the lungs and to the rest of the body. This phase includes points Q, R, and S on the ECG. The heart then _____ 8 to the relaxed state, marked by point T.

**5. Задайте все возможные типы вопросов к следующему предложению.**

*Heart rate changes greatly during child development.*

1. _____
_____
2. _____
_____
3. _____
_____
4. _____
_____
5. _____
_____

# Language Development

**1. Просмотрите текст о сердце и ответьте на вопросы.**

1. What is the heart and where is it located?
_____
_____

2. What is the structure of the heart?
_____
_____

3. What valves are included into the heart?
_____
_____

4. What are the phases of the heart work?
_____
_____

5. What is the normal heart rate?
_____

6. What is blood pressure? What is the standard blood pressure in a healthy person?
_____
_____

7. What is heart murmur?
_____
_____

8. What parameters of heart function are important for diagnostics?
_____
_____

**2a. Прочитайте описание того, как обследуют сердечно-сосудистую систему. Запомните слова, выделенные жирным шрифтом.**

**Examining the Heart and Circulation**

**A**. Look at the lips, tongue and nails for the blue discoloration of **cyanosis**. Cyanosis may be central or peripheral. Inspect the hands for **clubbing**. Feel the **pulse** at the **wrist** and note the rate (*e.g.,* 70 bpm) and rhythm (**regular** or **irregular**). Measure the blood pressure. Palpate the chest for the **apex beat** – the normal position is the fifth left **intercostal space**, one centimetre medial to the **midclavicular line.** Feel for any **thrills**. Heart size may be measured by percussion. Listen for **murmurs** and other abnormal sounds. Murmurs may be soft or loud.

**B. Shortness of breath,** or **breathlessness**, is dyspnoea. At first this is caused by **exertion -** physical activity such as climbing the stairs – but in severe cases it may be present even **at rest**. A patient who is breathless when lying flat (orthopnoea), for example in bed, will tend to sleep raised up on two or more pillows.

**C. Heart rhythm.** The normal **resting heart rate** is 65-75 bpm (**beats per minute**). In athletes it may be as low as 40 bpm. In extreme athletic activity the heart rate can go as high as 200 bpm.

The heart rate may be **regular** and **irregular**. In an irregular rhythm (**arrhythmia**), there may be early beats which interrupt the regular rhythm or it may be completely irregular, as in **fibrillation**. When patients are aware of irregularity, they describe the symptom as **palpitation**.

**2b. Упражнения.**

1. Put the steps for examining the heart and circulation in order according to the four-stage system**: inspection – palpation – percussion – auscultation (**See text A).

**a.** Measure the heart size.
**b.** Are there any murmurs?
**c.** Feel the pulse.
**d.** Look for clubbing.
**e.** Locate the apex beat.
**f.** Note any thrills.

2. Give the definitions to the following terms.
dyspnoea _____
_____
arrhythmia _____
_____
orthopnoea _____
_____
oedema _____
_____
cyanosis _____
_____

**3. Проект**

**Find out how people's understanding of the heart structure, functions and its role in the body has been changing over the time. You may start like this:**

*The Egyptians believed that the heart, rather than the brain, was the source of human wisdom, as well as emotions, memory, the soul and the personality itself…*

# Grammar Point

## Future Passive Tenses

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/active_passive.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/active_passive/sentences_will_future.htm

https://www.englisch-hilfen.de/en/exercises/active_passive/objects_tenses.htm

https://www.englisch-hilfen.de/en/exercises/active_passive/passive_tenses_phrases.htm

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can talk about the anatomical structure of the heart
- I know the functions of the heart in the cardiovascular system
- I can explain how to examine the heart and cardiovascular system
  I can use Future Passive Tenses

# Key Words

apex /ˈeɪpɛks/ *n*
atrium (pl: atria) /ˈeɪtrɪəm (ˈeɪtrɪə)/ *n*
blood pressure /blʌd ˈprɛʃə/
breathlessness /ˈbrɛθlɪsnɪs/ *n* = shortness of breath /ˈʃɔːtnɪs ɒv brɛθ/
clubbing /ˈklʌbɪŋ/ *n*
congestive heart failure /kənˈʤɛstɪv hɑːt ˈfeɪljə/
cyanosis /ˌsaɪəˈnəʊsɪs/ *n*
diastole /daɪˈæstəlɪ/ *n*
episode (attack) /ˈepɪsəʊd (əˈtæk)/ *n*
exertion; (on exertion) /ɪgˈzɜːʃən/ *n*
fibrillation /ˌfaɪbrɪˈleɪʃən/ *n*
heart failure /hɑːt ˈfeɪljə/
heart rate /hɑːt reɪt/
heart rhythm /hɑːt rɪðm/
heart sounds /hɑːt saʊndz/
intercostal space /ˌɪntəˈkɔstəl speɪs/
mitral /ˈmaɪtrəl/ *adj*
mitral valve replacement /ˈmaɪtrəl vælv rɪˈpleɪsmənt/
murmur /ˈmɜːmə/ *n*
myocardium /ˌmaɪəʊˈkɑːdɪəm/ *n*
palpitation /ˌpælpɪˈteɪʃən/ *n*
pericardium /ˌperɪˈkɑːdɪəm/ *n*
pulse /pʌls/ *n*
regular /ˈregjʊlə/ *adj*
semilunar /ˌsemɪˈluːnə/ *adj*
septum /ˈseptəm/ *n*
systole /ˈsɪstəlɪ/ *n*
thrills /θrɪlz/ *n pl.*
tricuspid /traɪˈkʌspɪd/ *adj*
valve /vælv/ *n*
ventricle /ˈventrɪkl/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT VI. MYOCARDIAL INFARCTION

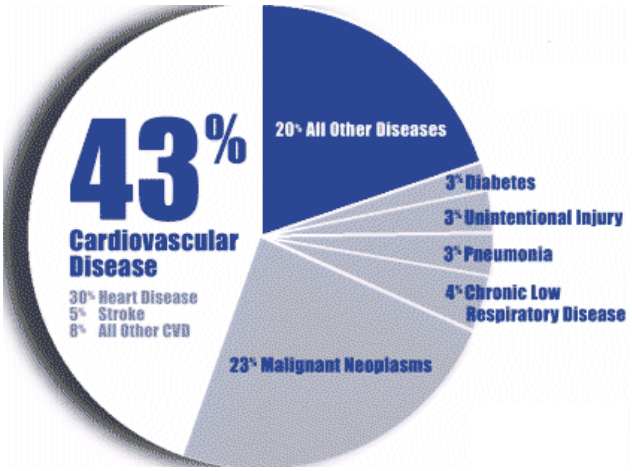
**In this unit**

- giving the definition of myocardial infarction
- talking about the causes and symptoms of myocardial infarction
- describing the course and treatment of the disease
- *Modal Verbs in the First Meaning*

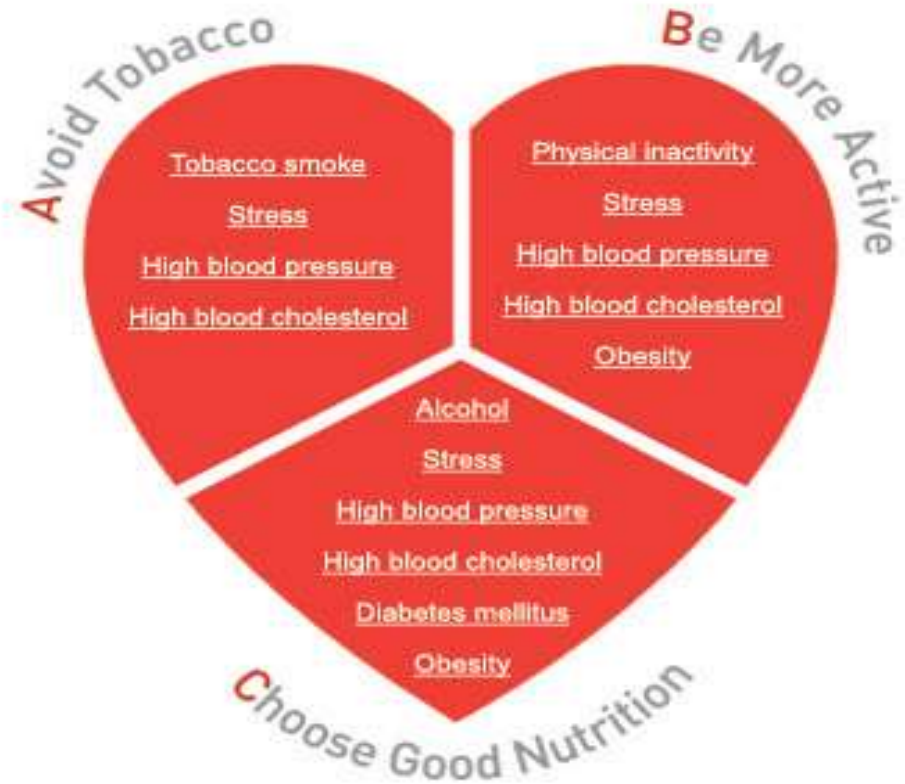
## Lead-in

**1. Изучите диаграмму (справа) и ответьте на вопросы.**

1. What disease is number-one killer in the developed countries?
2. Do most heart attacks occur in young or elderly people? What do you think?
3. Are heart attacks more frequent in men or women?
4. What will you do if heart attack occurs in your relative?
5. What in your opinion are the causes of heart attack?
6. What must one do to prevent heart diseases? What is the ABC of heart disease prevention? (See the diagram below).




**2. Прочитайте текст об инфаркте миокарда. Озаглавьте каждую его часть.**



*In developed countries more people die from coronary heart disease than any other illness. It kills one in four men and one in six women.*

# Reading

## Myocardial Infarction (Heart Attack)

**Myocardial infarction** (**MI**), commonly known as a **heart attack,** is a serious medical emergency in which the supply of blood to the heart is suddenly blocked, usually by a **blood clot**. Lack of blood to the heart can seriously **damage** the heart muscle.

**1.**

The typical symptoms of the disease can include:

- chest pain: the chest can feel like it is being pressed or **squeezed** by a heavy object, and pain can **radiate** from the chest to the jaw, neck, arms and back
- **shortness of breath**
- feeling weak and/or **light-headed**/**dizzy**
- overwhelming feeling of **anxiety**

It is important to stress that not everyone experiences **severe** chest pain; often the pain can be mild and mistaken for **indigestion**. It is the combination of symptoms that is important in determining whether a person is having a heart attack, and not the **severity** of chest pain.
Among the diagnostic tests available to detect heart muscle damage are an electrocardiogram (ECG), **echocardiography**, cardiac MRI and various blood tests.

**2.**

Coronary heart disease (CHD) is the leading cause of heart attacks. CHD is a condition in which coronary arteries (the major blood vessels that supply the heart with blood) get **clogged** up with deposits of cholesterol. These deposits are called **plaques**.
During a heart attack, one of the plaques ruptures (bursts), causing a blood clot to develop at the site of the rupture. The clot may then block the supply of blood running through the coronary artery, **triggering** a heart attack.

**3.**

The risk-factors of coronary heart disease are related to lifestyle, and sometimes, though not always, linked to a genetic **predisposition** to the disease. They are:

- *high blood cholesterol*. This is acquired through diabetes and kidney disease, poor diet, obesity, and lack of physical activity.
- *smoking*. This raises blood pressure and increases the tendency for blood to clot.
- *high blood pressure*. This thickens the walls of the arteries and makes them narrower.
- *type A personality*. This type of personality is characterized by **impatience**, competitiveness, and aggressiveness.

**4.**

Treatment for a heart attack will depend on how serious it is. When someone has a heart attack, medical treatment is **urgent**. They are given oxygen through a face mask, nitroglicerine to improve blood flow, morphine to kill the pain, and aspirin to **inhibit** blood clotting. They may then receive an emergency **angioplasty** which is a long thin tube passed into the artery at the tip of which is a balloon which is **inflated** when everything is in place. The balloon opens up the artery, allowing the blood to flow more freely. A small spring-like device called a **stent** is then inserted which holds the artery open.
Most people can return to work after having a heart attack, but how quickly will depend on, your health, the state of your heart and the kind of work you do.

**5.**

**Complications** of heart attack can be serious and possibly life-threatening, and include:

- cardiogenic shock – this is where the muscles of the heart are severely damaged, meaning the heart can no longer supply enough blood to maintain many body functions
- heart rupture – is where the heart's muscles, walls or valves split apart (rupture)
- **arrhythmia** – is an **abnormal** heartbeat, such as a ventricular arrhythmia, where the heart begins beating faster and faster before going into a kind of spasm and then stops beating (cardiac **arrest**).

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Соотнесте термины с их определениями:**

| | |
|---|---|
| **1.** stent | **a.** dizzy and slightly faint |
| **2.** shortness of breath | **b.** to prevent smth from happening |
| **3.** to radiate | **c.** a device placed inside a duct or blood vessel to relieve an obstruction |
| **4.** light-headed | **d.** stopping of the heart |
| **5.** cardiac arrest | **e.** a state of irritability or restlessness |
| **6.** impatience | **f.** to spread |
| **7.** to inhibit | **g.** a feeling of worry, nervousness |
| **8.** anxiety | **h.** breathlessness |

**3. Закончите предложения, употребив подходящие слова из упр. 2.**

1. The pain started in the chest and then _____ _____ to the left arm and shoulder.
2. An old woman attended her GP's surgery complaining of _____ on exertion.
3. After overdose of the drug he began to feel _____.
4. On the way to the hospital the patient had a cardiac _____ .
5. During the operation a coronary _____ was inserted into the coronary artery to provide good blood supply.
6. Patients are given aspirin to _____ blood clotting.

**4. Образуйте словосочетания, используя слова из таблицы. Каждое слово может быть использовано только один раз.**

| | |
|---|---|
| myocardial | genetic |
| typical | blood |
| medical | poor |
| various | physical |
| coronary | cardiogenic |

1. _____ shock
2. _____ activity
3. _____ diet
4. _____ cholesterol
5. _____ artery
6. _____ blood tests
7. _____ emergency
8. _____ symptom
9. _____ infarction
10. _____ predisposition

**5. Заполните пробелы в тексте словами из таблицы.**

| |
|---|
| Arrhythmia, electrocardiogram, angioplasty, clot, plaque, severity, occlusion, radiating, indigestion, severe, squizeening |

Myocardial infarction is a destruction of an area of heart muscle as the result of _____1 of a coronary artery. The occlusion may result from the formation of a _____2 that develops suddenly when an atheromatous _____3 ruptures through the sublayers of a blood vessel. The most outstanding symptom of acute myocardial infarction is a sudden painful sensation of pressure, often described as a "crushing pain" in the chest, occasionally _____4 to the arms, throat, and back, and _____5 for hours. In almost all cases of _____6 MI the patient has a sense of impending death, nausea and vomiting, leading to the mistaken impression that the victim is suffering from acute _____7.
Typical signs of MI are cardiac _____8, and elevation of the S-T segment and Q wave on the _____9. Patients with evidence of persistent ischemia require angiography and may be candidates for balloon _____10. Minimizing or eliminating avoidable factors such as hypertension, cigarette smoking, and elevated serum lipids can reduce the incidence and _____11 of ischemic heart disease.

**6. Следующие предложения могут быть сказаны медсестрой пациенту при выполнении ЭКГ. Соотнесите начало и конец предложений и поставьте их в логической последовательности.**

| | | |
|---|---|---|
| **1.** We're nearly | **a.** lying comfortably? | |
| **2.** I'm just going to clean your chest so that | **b.** try not to move | |
| **3.** The machine's just | **c.** the electrodes make good contact | |
| **4.** We're going to do an ECG so that we can | **d.** done recording now. | |
| **5.** Are you | **e.** look for any abnormal heart rhythms. | **1** |
| **6.** It's all done, so I'll | **f.** take the electrodes off now. | |
| **7.** Now just relax and | **g.** printing out the recording. | |

# Language Development

**1. Просмотрите текст об инфаркте миокарда еще раз и ответьте на вопросы.**

1. What kind of disease is myocardial infarction (MI)?

_____
_____

2. What are the causes of MI?

_____
_____
_____
_____

3. What are the typical symptoms of MI?

_____
_____
_____
_____

4. What risk factors of heart diseases can you name?_____
_____

5. What does the treatment for heart attack include?

_____
_____
_____
_____

6. What complications of heart attack do you know?

_____
_____
_____
_____

7. What other heart diseases can you name? Surf the Internet.

_____
_____
_____
_____
_____

**2. Обсудите все «за» и «против» использования аббревиатур в истории болезни.**

**3. Соотнесите аббревиатуры со словами и выражениями.**

| | |
|---|---|
| 1. bilat. | a. alcohol (ethyl alcohol) |
| 2. BS | b. bilaterally (=on both |
| 3. CV | sides) |
| 4. CXR | c. pain on exertion |
| 5. DM | d. breathing sounds, or |
| 6. EtOH | bowel sounds |
| 7. GI | e. cardiovascular system |
| 8. HTN | f. slight, or |
| 9. M/G/R | sublingually |
| 10. + | g. myocardial infarction |
| 11. N | h. diabetes mellitus |
| 12. POE | i. gastrointestinal |
| 13. RRR | j. hypertension |
| 14. sl | k. murmurs, gallops, rubs |
| 15. SOB | (sounds indicating heart |
| 16. u/s | irregularities) |
| 17. MI | l. chest x-ray |
| 18. c/o | m. nausea |
| 19. Hx | n. present, observed |
| | o. regular rate and rhythm |
| | p. shortness of breath |
| | q. ultrasound |
| | r. complains of |
| | s. medical history |

**4. Заполните пробелы в тексте, используя аббревиатуры из упр. 3.**

Right, now Mrs. Lee in bed number five. Mrs. Lee was readmitted yesterday because of uncontrolled *HTN* [1]. You'll probably remember her from last week. She went home but couldn't manage her activities of daily living by herself. Her daughter had to come in every morning to give her a shower and help her during a day. She's been quite distressed about it, according to her daughter. She presented to the unit with uncontrolled hypertension, despite the change of the drug. She has a past history of _____ [2] this year in June. Um, this morning she _____ [3] chest pain. Her _____ [4] at that time – er, that was 10 am, was two ten over one oh five, and her _____ [4] was one hundred. She had an _____ [5] done and was given nitroglycerine _____ [6]. We gave her some oxygen via the mask and she seemed to settle. She's in for cardiac catheterisation tomorrow to assess the extent of the damage to the heart.

**5. Прочитайте историю болезни пациента и ответьте на вопросы.**

## PATIENT NOTES

Jerry Sting

*History*

*48 y.o.male c/o chest pain. Began last night POE (jogging). Squeezing pain, sl SOB, sl N and sweating. Pains resolves spontaneously after 20 mins. No pain now. 5 similar episodes over past 3-4 mos. Usually POE or after a heavy meal with some relief by antacids. Has Hx of ↑ cholesterol but no follow-up or treatment. Plays tennis weekly. Ex-smoker x 30 yrs.(40 pack/yrs.), EtOH 3 beers/day x 30 yrs. Denies unusual stress. Sister with unknown heart problem. No Hx HTN, DM but has not seen GP x 2 yrs.*

*Physical Examination*

*No obvious distress, minimizing symptoms, anxious to leave.*
*BP of 180/90 noted.*
*Resp. clear BS bilat. without wheezes or rales.*
*GI – no tenderness, BS+ , no masses*
*CV – RRR no M/G/R*

*Differential Diagnosis*

*1. myocardial infarction*
*2. acid reflux*
*3. muscle strain*
*4. anxiety reaction*

*Diagnostic Workup*

*1. ECG*
*2. CXR*
*3. u/s heart*
*4. upper GI tract radiography*

1. What type of pain does the patient get and where is it located?
2. How many times has the patient had this pain?
3. How long has he been getting this pain?
4. When did he get the pain?
5. What makes the pain better?
6. Does he smoke or drink?
7. Did his GP refer him to the hospital?
8. What condition does the doctor think is most likely to be causing the pain?

# Grammar Point

## Modal Verbs in the First Meaning

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/hilfsverben2.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/modals/form.htm

https://www.englisch-hilfen.de/en/exercises/modals/must_not_need_not.htm

https://www.englisch-hilfen.de/en/exercises/modals/must_not.htm

**3. Проект.**

**a. Research one of the relatively new treatments for heart problems below. Explain what problem it treats and how it works.**

- ablation
- angioplasty
- statins
- stent grafts

**b. You are going to give a short talk to a group of factory workers about how to keep their hearts healthy. In groups, prepare a short presentation on one of the topics below.**

- diet
- drinking and smoking

exercise and stress

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can give the definition of myocardial infarction
- I know the the causes and symptoms of myocardial infarction
- I can describe the course and treatment of this disease.
- I can use modal verbs

# Key Words

angina pectoris /qn`Galnq `pɛktqrls/ *n*
angioplasty /`xnGlqu,plɛstl/ *n*
anxiety /ɛN`zalqtl/ *n*
arrest /q`rɛst/ *n, v*
arrhythmia /ɛl`rlƉmlq/ *n*
blood clot /blʔd klOt/
clog /klOg/ *v*
clogged /klɔgd/ *adj*
complication /kOmplI`kɛlSqn/ *n*
damage /`dxmlG/ *n, v*
dizzy /`dlzl/ *n*
echocardiography /,ɛkqukRdl`Ogrqfl/ *n*
heart attack /hRt q`txk/
impatience /lm`pɛlSqns/ *n*
indigestion /,lndl`GɛsCqn/ *n*
inflate /ln`flɛlt/ *v*
inhibit /ln`hlblt/ *v*
light-headed /`lalthɛdld/ *adj*
myocardial infarction /,malqu`kRdlql ln`fRkSqn/
plaque /plak/ *n*
predisposition /prJdlspq`zlSqn/ *n*
radiate /`rɛldlɛlt/ *v*
severe /sl`vlq/ *adj*
squeeze /skwJz/ *v*
stent /stɛnt/ *n*
trigger /`trlgq/ *n, v*
urgent /`WGqnt/ *adj*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT VII. THE GASTROINTESTINAL SYSTEM

**In this unit**

- talking about the structure of the gastrointestinal system
- describing the functions of the gastrointestinal system
- *Indirect Speech*

## Lead-in

**1. Интересные факты.**

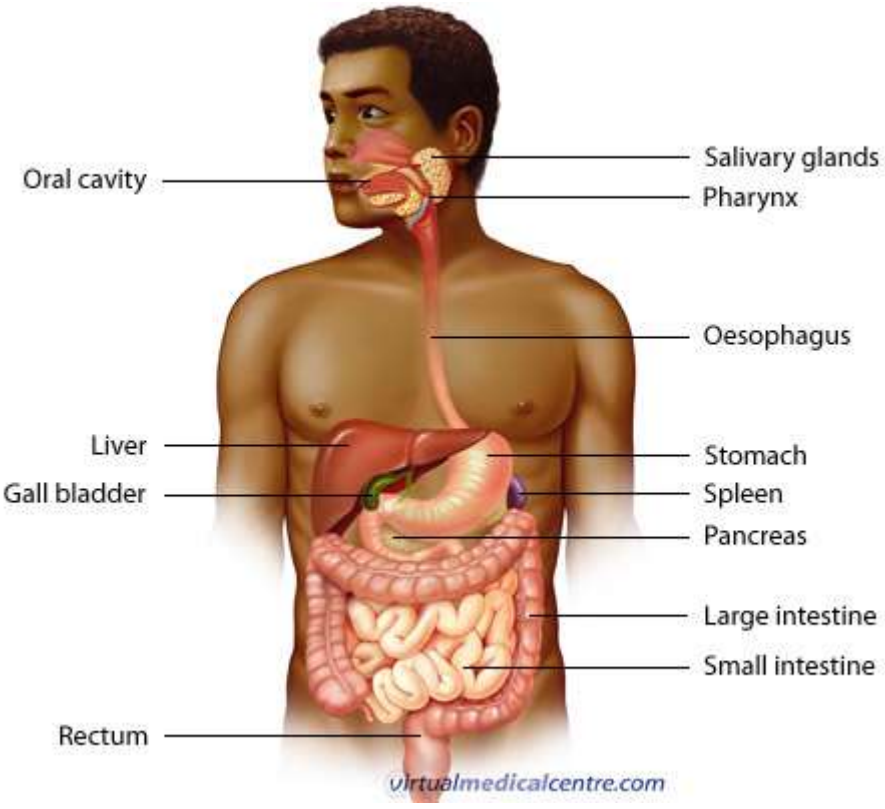
- The average male will eat about 50 tons of food during his lifetime.
- The salivary glands can produce up to 1,500 millilitres of saliva daily.
- Food remains in the oesophagus for as little as five seconds before entering the stomach.
- Muscles contract in waves to move the food down the oesophagus. This means that food would get to a person's stomach, even if he were standing on the head.
- The small intestine in an adult can reach 3 meters in length, while the large intestine is only about 1.5 meters long.
- Food remains in the small intestine for three to five hours on average, during which most nutrients are removed.
- Within the colon, a typical person harbours more than 400 distinct species of bacteria.
- Every square millimetre of the small intestine can contain 40 villi and 200 million microvilli.

**2. Прочитайте текст о пищеварительной системе. Подготовьте пересказ текста по плану.**

1. The function of the digestive system.
2. How does the digestive system work?
3. The accessory organs.
4. The large intestine.

**3. Рассмотрите рисунок и опишите процесс пищеварения в организме человека.**

### Human Gastrointestinal Tract



*"A good eater must be a good man; for a good eater must have a good digestion, and a good digestion depends upon a good conscience."*
*Benjamin Disraeli, 'The Young Duke' (1831)*

*Digestion, of all the bodily functions, is the one which exercises the greatest influence on the mental state of an individual.*
*Jean-Anthelme Brillat-Savarin (1755-1826)*

# Reading

## The Gastrointestinal System

### 1. The function of the digestive system

The function of the **digestive system** is to prepare food for intake by body cells. Nutrients must be broken down by mechanical and chemical processes into molecules that are small enough to be absorbed into the circulation. Within cells, the nutrients are used for energy and for rebuilding vital cell components. Digestion takes place within a tube called the digestive tract or the **alimentary canal,** or **gastrointestinal** (GI) tract. It is about 6.5 metres long. Thus, the functions of the digestive system are to **ingest** food, digest it to nutrients, absorb nutrients, and eliminate indigestible remains.

### 2. How does the digestive system work?

Digestion begins in the mouth where food is chewed into small bits by the teeth. Then the food is mixed with **saliva,** a secretion that moistens the food and begins the digestion of starch. The
moistened food is then passed into the **pharynx** and through the **oesophagus** into the **stomach**. Here the food is mixed with the enzyme pepsin and with powerful hydrochloric acid (HCl), both of which break down proteins.
From the stomach the partially digested food passes into the first part of the **small intestine**, the **duodenum**. As the food continues through the **jejunum** and **ileum**, the remaining sections of the small intestine, digestion is completed. The substances active in digestion in the small intestine include enzymes from the intestine itself and secretions from the accessory organs of digestion. The digested nutrients, as well as water, minerals, and vitamins, are absorbed into the circulation, aided by small projections in the **lining** of the small intestine called **villi**.

### 3. The accessory organs

The accessory organs of digestion include the salivary glands, the **liver,** the **gall bladder** and the **pancreas. Salivation** occurs due to nerve signals that tell the salivary glands to secrete saliva to prepare and moisten the mouth. The liver acts as a mechanical filter by filtering blood that travels from the intestinal system. It detoxifies several metabolites. Its main roles in digestion are in the production of **bile** and metabolism of nutrients. The main functions of the gall bladder are storage and concentration of bile. Bile is a thick fluid that contains enzymes to help dissolve fat in the intestines. The pancreas is a lobular organ that lies behind the stomach. It has both exocrine and endocrine functions.

### 4. The large intestine

Undigested food, water, and digestive juices pass into the **large intestine**. Its length is approximately 1.5 m. This part of the digestive tract begins in the lower right region of the abdomen with a small pouch, the **caecum**, to which the **appendix** is attached.
The large intestine continues as the **colon**, a name that is often used to mean the large intestine because the colon constitutes such a large portion of that organ.
As food is pushed through the colon, water is reabsorbed and stool or **faeces** is formed. This waste material passes into the S-shaped **sigmoid colon** and is stored in the **rectum** until eliminated through the **anus**.
Food is moved through the digestive tract by **peristalsis**, wavelike contractions of the organ walls. Peristalsis also moves undigested waste material out of the body.

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Соотнесите термины с их определениями:**

| | |
|---|---|
| **1.** stomach | **a.** glands located in the mouth that produce saliva. |
| **2.** rectum | **b.** a large organ that filters toxins from the blood, and makes bile. |
| **3.** salivary glands | **c.** the part of the alimentary canal located between the stomach and the anus. |
| **4.** mouth | **d.** the lower part of the large intestine, where faeces are stored before they are excreted. |
| **5.** liver | **e.** the long tube between the mouth and the stomach. |
| **6.** intestine | **f.** an enzyme-producing gland located below the stomach and above the intestines. |
| **7.** oesophagus | **g.** the first part of the digestive system, where food enters the body. |
| **8.** pancreas | **h.** a sack-like, muscular organ that is attached to the oesophagus. |
| **9.** anus | **i.** the opening at the end of the digestive system from which faeces exits the body. |

**3. Дополните таблицу словами, обозначающими процессы, происходящие в организме.**

| **Noun** | **Verb** |
|---|---|
| absorption | *absorb* |
| consumption | 1 _____ |
| contraction | 2 _____ |
| conversion | 3 _____ |
| detoxification | 4 _____ |
| elimination | 5 _____ |
| expansion | 6 _____ |
| ingestion | 7 _____ |
| secretion | 8 _____ |
| stimulation | 9 _____ |

**4. Заполните пробелы словами из упр. 3.**

1. The sight, smell, and taste of food _____ glands to produce saliva.
2. A major role of the digestion process is the _____ of waste from the body.
3. Food is _____ through the mouth.
4. The pancreas is involved in the _____ of enzymes that break down food molecules.
5. Nutrition is when the body _____ food substances into energy.
6. The digestive system breaks down food and transports it for _____ and defecation.
7. The muscles in the oesophagus make wave-like _____ which push the food along.
8. Too much _____ of certain foods can overload the digestive system.
9. The stomach can _____ as it fills with undigested food.

**5. Выберите правильный ответ**.

1. The nutrients that are used to build and repair body parts are
   **a.** proteins **c.** carbohydrates
   **b.** minerals **d.** vitamins
2. Which is not found in the mouth?
   **a.** pepsin **c.** ptyalin
   **b.** saliva **d.** taste buds
3. The tube that connects the mouth and the stomach is the
   **a.** small intestine **c.** oesophagus
   **b.** pancreas **d.** epiglottis
4. Gastric juice contains the enzyme
   **a.** bile **c.** ptyalin
   **b.** pepsin **d.** mucus
5. The digestion of proteins begins in the
   **a.** mouth **c.** small intestine
   **b.** liver **d.** stomach
6. In the digestive system, proteins are broken down into
   **a.** fatty acids **c.** simple sugars.
   **b.** glycerol **d.** amino acids
7. The liver produces
   **a.** pepsin **c.** hydrochloric acid
   **b.** bile **d.** ptyalin

# Language Development

**1. Просмотрите текст о пищеварительной системе и ответьте на вопросы.**

1. What does the gastrointestinal tract consist of?

_____

_____

2. What are the main functions of the digestive system?

_____

_____

3. Where does digestion begin?

_____

4. What processes take place in the oral cavity?

_____

_____

5. Where is the oesophagus located and what is its function?

_____

_____

6. What are the main functions of the stomach?

_____

_____

7. What is the small intestine composed of?

_____

_____

8. What does the large intestine consist of?

_____

_____

9. How are undigested materials and secreted waste products excreted from the body?

_____

_____

10. What are the accessory organs?

_____

_____

11. What functions do accessory organs have in the digestive system?

_____

_____

12. What is the main function of liver?

_____

_____

**2. Определите этапы в процессе пищеварения, обозначив их цифрами 1-7. Затем опишите весь процесс пищеварения, происходящий в ЖКТ.**

a. Salivary glands in the mouth produce enzymes. __1__

b. Food in the stomach is attacked by digestive juices which include a powerful acid. _____

c. When the food **is** in the **small** intestine, juices from **the pancreas** and bile from the gall bladder dissolve undigested fat. ____

d. Food in a liquid paste form enters the colon where water is removed. _____

e. Faeces are expelled by a bowel movement. __

f. The first swallow starts the muscle action and pushes food through the oesophagus. ____

g. The food, now in a semi-solid state, slowly empties into the small intestine. ____

**3. Объяснение цели и причины.**

**a. Прочитайте следующие два предложения и скажите, какое выражает цель и какое выражает причину.**

1. Your weight loss shows you are not absorbing nutrients, **so** we're going to have a look at your intestine.
2. We will not give her laxatives **because** she may have an internal obstruction.

**b. Закончите предложения 1-8, используя фразы a-h. Скажите, какие предложения выражают цель, а какие – причину.**

**1.** He has a bowel problem,
**2.** The whiteness of your fingernails
**3.** We are going to do a colonoscopy
**4.** Cut down on heavy or spicy food,
**5.** You mustn't eat for four hours before the ultrasound.
**6.** As **a result of** the stool test
**7.** Do not give the patient aspirin,

**a. in order to** find the cause of the bleeding.
**b.** we have decided surgery is the best option.
**c.** is **due to** the liver damage.
**d. resulting in** weight loss.
**e. so that** your gall bladder can be seen in the scan.
**f. as** it would make the bleeding worse.
**g. to** allow your stomach to recover.

**4. Проект.**

**Choose one of the organs of the digestive system. Now imagine that you should make a talk about this organ to a group of 10-year-olds. Be ready to speak about the structure, functions and diseases of this organ. Do not forget that children will not listen to you if you are boring!**

# Grammar Point

## Indirect Speech

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/reported.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/reported_speech/time_phrases.htm

https://www.englisch-hilfen.de/en/exercises/reported_speech/statements.htm

https://www.englisch-hilfen.de/en/exercises/reported_speech/sentences.htm

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I know the structure and functions of the gastrointestinal tract
- I can describe the process of digestion and other processes taking place in the GIT
- I can explain the purpose and cause of different processes
- I can fransform direct speech into indirect

# Key Words

alimentary canal /ɛlɪˈmɛntərɪ ˈkænəl/
anus /ˈeɪnəs/ *n*
appendix /əˈpɛndɪks/ *n*
bile /baɪl/ *n*
caecum /ˈsiːkəm/ *n*
colon /ˈkəʊlən/ *n*
digestion /d(a)ɪˈʤɛsʧən/ *n*
digestive system /d(a)ɪˈʤɛstɪv ˈsɪstəm/
duodenum /ˌdjuːəˈdjuːnəm/ *n*
oesophagus /iːˈsɔfəgəs/ *n*
faeces /ˈfiːsiːz/ *n*
gall bladder /ˈgɔːlblɛdə/ *n*
gastrointestinal tract /ˌgastrəʊɪnˈtɛstɪnəl træk/
ileum /ˈɪlɪəm/ *n*
ingest /ɪnˈʤɛst/ *v*
jejunum /ʤɪˈʤuːnəm/ *n*
large intestine /lɑːʤ ɪnˈtɛstɪn/
lining /ˈlaɪnɪŋ/ *n*
liver /ˈlɪvə/ *n*
pancreas /ˈpaŋkrɪəs/ *n*
peristalsis /ˌpɛrɪˈstalsɪs/ *n*
pharynx /ˈfarɪŋks/ *n*
rectum /ˈrɛktəm/ *n*
saliva /səˈlaɪvə/ *n*
salivation /ˌsalɪˈveɪʃən/ *n*
sigmoid colon /ˈsɪgmɔɪd ˈkəʊlən/
small intestine /smɔːl ɪnˈtɛstɪn/
stomach /ˈstʌmək/ *n*
villus, *pl.* villi /ˈvɪləs (ˈvɪlaɪ)/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT VIII. GASTRITIS

**In this unit**

- describing the causes and symptoms of gastritis
- talking about the treatment and prognosis of gastritis
- *Sequence of Tenses*

## Lead-in

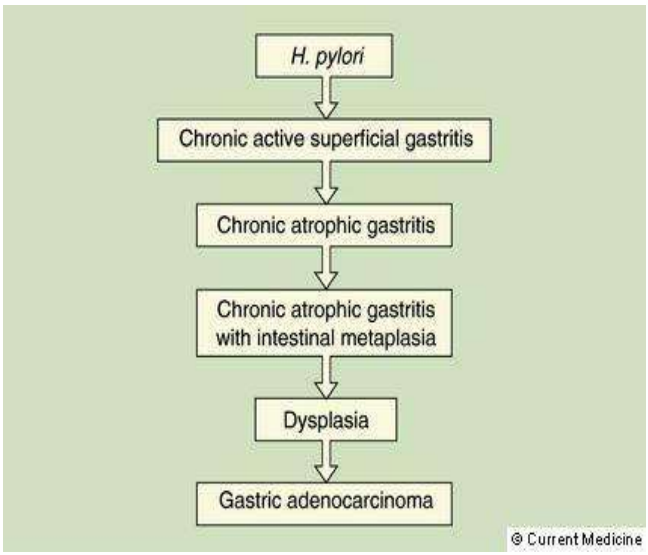
**1. Прочитайте некотрые из рекомендаций *Gastritis Diet Guidelines* для профилактики или лечения гастрита. Каким из них вам было бы сложней всего следовать?**

- Try to avoid very hot food.
- Colas and sodas should not be used.
- Smoking should be avoided altogether.
- Do not eat chocolates.
- Use low fat dairy products.
- Avoid drinking coffee.
- Use fresh fruits and vegetables.
- Try to avoid food which produces gas in your stomach such as broccoli, cabbage, and onions.
- Drink fruit juices as they are very low in acidity.
- Take mild herbal teas as they are free of caffeine.
- Cottage cheese and butter can be used by gastritis patients.
- The consumption of alcohol should be minimized.
- Over dose of antibiotic medicines should be avoided.
- Increase your milk intake as it will control the acidity of the stomach.
- Avoid spicy foods as in addition to gastritis, they may also cause ulcers.

**2. Прочитайте текст о гастрите. Выберите из списка утверждений A-F те, что лучше всего отражают содержание каждой части (1-5) текста. Здесь есть одно лишнее утверждение, которое вам не понадобится.**

**A.** Causes of gastritis.
**B.** Prognosis for gastritis.
**C.** Treatment for gastritis.
**D**. Diagnosis of gastritis.
**E.** Symptoms of gastritis.
**F.** Symptoms of erosive gastritis.


**Acute gastritis with superficial erosions**




**Relationship of Helicobacter pylori to gastric cancer**

*In the evaluation of chronic gastrointestinal complaints, a careful analysis and description of the symptoms, how they developed, the order in which they appeared and changed, are usually far more informative than the physical examination. Horward M. Spiro (1924 - )*

*Illness isn't the only thing that spoils the appetite.*
*Ivan Turgenev (1818 – 1883)*

# Reading

## Gastritis

Gastritis is an inflammation, **irritation**, or **erosion** of the lining of the stomach. Gastritis is classified as erosive and nonerosive, acute and chronic. Chronic gastritis implies some degree of atrophy.

**1.**

Gastritis can be caused by irritation due to **excessive** alcohol use, chronic vomiting, stress, or the use of certain medications such as aspirin or other anti-inflammatory drugs. It may also be caused by any of the following:

- **Helicobacter pylori**: bacteria that live in the mucous lining of the stomach. Without treatment the infection can lead to ulcer, and in some people, stomach cancer.
- Bile reflux: a backflow of bile into the stomach from the bile tract.
- Infections caused by bacteria and viruses.

If gastritis is left untreated, it can lead to a severe loss in blood and may increase the risk of developing stomach cancer.

**2.**

Symptoms of gastritis vary among individuals, and in many people there are no symptoms. However, the most common symptoms include: nausea, or **recurrent upset** stomach, abdominal **bloating**, abdominal pain, vomiting, **indigestion**, **burning** or **gnawing** feeling in the stomach between meals or at night, **hiccups**, loss of appetite.

**3.**

To diagnose gastritis, a doctor reviews a personal and family medical history, performs a thorough physical evaluation, and may recommend any of the following tests.

***Upper endoscopy***. An endoscope, a thin tube containing a tiny camera, is inserted through the mouth and down into the stomach to look at the stomach lining. A doctor checks for inflammation and may perform a biopsy, a procedure in which a tiny sample of tissue is removed and then sent to a laboratory for analysis.

***Blood tests.*** The doctor performs various blood tests to determine whether a patient has anaemia. He can also screen for H. pylori infection and **pernicious** anaemia with blood tests.

***Faecal occult blood test*** (stool test). This test checks for the presence of blood in your stool, a possible sign of gastritis.

**4.**

Treatment for gastritis usually involves:

- Taking **antacids** and other drugs to reduce stomach acid, which causes further irritation to **inflamed** area; avoiding hot and spicy foods.
- For gastritis caused by H. pylori infection, a doctor will prescribe a regimen of several antibiotics plus an acid blocking drug.
- If the gastritis is caused by pernicious anaemia, $B_{12}$ vitamin shots will be given.
- Eliminating irritating foods from the diet such as lactose from dairy or gluten from wheat.

Once the **underlying problem** disappears, the gastritis usually does, too. A patient should talk to the doctor before stopping any medicine or starting any gastritis treatment on his own.

Most people with gastritis improve quickly once treatment has begun. As soon as a doctor identifies the cause of gastritis and begins treatment, the prognosis for a full recovery is very good.

# Vocabulary Practice

**1 Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Соотнесите термины в таблице с их определениями. Первое выражение сделано как образец.**

| involve, recurrent, irritation, excessive, bloated, nausea, pernicious, indigestion, hiccup |
|---|

1. *burning pain* - an intense, extreme pain

2. _____ - greater than what is normal

3. _____ - happening often or regularly

4. _____ - swollen with gas or liquid

5. _____ - pain caused by difficulty in digesting
6. _____ - include

7. _____ - a sharp, often repeated sound in the throat caused by stop of breathing
8. _____ - destructive, or fatal unless treated
9. _____ - extreme initial inflammatory reaction of the body tissues to an injury.
10. _____ - an unpleasant sensation referred to the epigastrium and abdomen, with a tendency to vomit.

**3. Закончите предложения, используя термины, перечисленные выше.**

1. The cause of gastritis may be chronic and the symptoms are _____ .
2. If the patient complains of _____ and vomiting, one must first of all consider a disease of the abdominal cavity.
3. _____ consumption of junk food in our country is horrifying!
4. The patient suffered from _____ and _____ stomach.
5. Often because you have been eating or drinking too quickly, you may have _____.
6. The procedure _____ inserting an endoscope into the stomach through the mouth.

**4. Закончите следующие предложения.**

1. The causes of gastritis are _____ _____.
2. The symptoms of gastritis are _____ _____.
3. Gastritis can be confirmed by _____ _____.
4. Faecal occult blood test is _____ _____.
5. The treatment of gastritis includes _____ _____.
6. The prognosis for patients with gastritis is ___ _____.

**5. a. Закончите письмо, используя выражения из таблицы. Что это за письмо? Что оно описывает? Что последует далее?**

| | |
|---|---|
| did an analysis | is no evidence |
| discuss treatment options | made an appointment |
| examine your colon | performed a biopsy |
| inform you of the results | run a risk |
| is a benign tumour | show an adenoma |

13th February

Dear Mrs Hartmann

I am writing to_____[1] of the colonoscopy done on the 20th of January to_____[2].

During this procedure, the doctor_____[3] _____in which he took a sample from your lower colon for analysis. The sample was a polyp and the pathologist _____[4] of it.

This shows that there_____[5] of cancer; however, the biopsy does _____[6] in your lower colon.

An adenoma_____[7]. This means that though you do not have cancer, you _____[8] of it some time in the future. I have_____[9] for

you to see Dr Monroe who will answer any questions you have and _____ _____[10].

Yours faithfully Jane Brown

**b. Напишите письмо пациенту, объясняя результаты его/ее биопсии, и объясните последующие действия.**

# Language Development

**1. Просмотрите текст о гастрите и ответьте на вопросы.**

1. What kind of disease is gastritis?

_____

_____

2. How is gastritis classified?

_____

_____

3. What are the causes of gastritis?

_____

_____

4. What are the most common symptoms of gastritis?

_____

_____

5. What helps the doctor to make the diagnosis of gastritis?

_____

_____

6. What kind of procedure is endoscopy?

_____

_____

7. What does the treatment of gastritis include?

_____

_____

8. How is gastritis caused by Helicobacter pylori treated?

_____

_____

9. What can untreated gastritis lead to?

_____

_____

10. What is prognosis for patients with gastritis?

_____

_____

**2a. Обсуждение истории болезни. Прочитайте историю болезни женщины, которая умерла от рака толстой кишки, потому что не получила своевременное лечение.**

Mrs Jobarti was an immigrant who spoke very little of the language of the country she lived in. She was a shy woman who was not well-educated and came from a culture and a generation of women who do not communicate easily with men about personal matters.
She was suffering frequent abdominal pains and one day she noticed blood in her stools. However, she was afraid of the 'foreign' doctors at her local clinic and was too embarrassed to talk to them about bowel habits. She visited a local healer from her own country who told Mrs Jobarti that she had a potentially fatal illness, but encouraged her to stay away from 'Western' medicine, gave her herbal preparations, and performed a healing ceremony. Finally, Mrs Jobarti found the courage to go to a doctor.
The patient and the doctor (a man) did not understand each other and the doctor, who did not use an interpreter, briefly examined her, took a sample of her blood, prescribed laxatives, and recommended a change in diet. The blood test was negative, but Mrs Jobarti's symptoms got worse over the next six months. She was eventually referred to a local hospital. There was a very long waiting list to see a specialist and the hospital did not make her a priority. Mrs Jobarti did not make a fuss, but suffered in silence. Samples of her stools got lost in Pathology. She had to repeat the tests and it was another four months before she was diagnosed with advanced colon cancer. It was too late to do anything. She died in a month.

**b. Подумайте о факторах, которые способствовали задержке в своевременном оказании помощи. Кого или что следует обвинять в первую очередь? Расставьте следующие факторы в порядке их значимости.**

| | |
|---|---|
| the culture she was living in | the patient herself |
| the doctor | the patient's culture |
| the healer | the patient's husband |
| the hospital | |

**c. What measures should be taken in general practice service/the hospital to avoid similar situations in future?**

# Grammar Point

## Sequence of Tenses

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/reported.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/reported_speech/backshift.htm

https://www.englisch-hilfen.de/en/exercises/reported_speech/time_phrases.htm

https://www.englisch-hilfen.de/en/exercises/reported_speech/sentences.htm

**3. Проект**

**Study the list of the Nobel Prize laureates in medicine and physiology:**

http://www.nobelprize.org/nobel_prizes/medicine/laureates/index.html

**Are there any scientists who were prized for their discoveries concerning the digestive system? the stomach? other digestive organ? gastric and intestinal diseases?**

**Choose one laureate and write about his/her discovery and its significance for the modern medical science.**

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I know the structure and of the stomach
- I can describe the functions and other processes taking place in the stomach
- I can explain the purpose and cause of different processes
- I can apply the rule of sequence of tenses

# Key Words

bowel sounds /ˈbaʊəl saʊndz/
breakdown /ˈbreɪkdaʊn/ *n*
chyme /kaɪm/ *n*
confirm /kənˈfɜːm/ *v*
constipation /kɒnstɪˈpeɪʃən/ *n*
diarrhoea /ˌdaɪəˈrɪə/ *n*
dilated /d(ə)ɪˈleɪtɪd/ *adj*
distend /dɪˈstend/ *v*
emesis /ˈemɪsɪs/ *n* = vomiting /ˈvɒmɪtɪŋ/ *n*
feacal occult blood /ˈfiːkəl ɒˈkʌlt blʌd/
gastritis /gæˈstraɪtɪs/ *n*
gastroenteritis /ˌgæstrəʊentəˈraɪtɪs/ *n*
guarding /ˈgɑːdɪŋ/ *n*
masses /ˈmæsɪz/ *n pl.*
masticate /ˈmæstɪkeɪt/ *v*
nausea /ˈnɔːsɪə/ *n*
peptic ulcer /ˈpeptɪc ˈʌlsə/
release /rɪˈliːs/ *v*
rigidity /rɪˈdʒɪdɪtɪ/ *n*
shifting dullness /ˈʃɪftɪŋ ˈdʌlnɪs/
sphincter /ˈsfɪŋktə/ *n*
stomach cancer /ˈstʌmək ˈkænsə/
stool /stuːl/ *n*
swallow /ˈswɒləʊ/ *v*
tenderness /ˈtendənɪs/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# Self-Assessment (Units I-VIII)

**1. Закончите предложения, используя активную лексику уроков 1-6.**

1. An infection which can be treated successfully with antibiotics is_____.
2. Another word for an epidemic is _____.
3. Bacteria and viruses are examples of _____ _____.
4. Someone whose temperature is normal is _____ .
5. The colour of purulent sputum is._____ .
6. The medicine which stopped H5N1 spreading was _____ .
7. Another word for *measles* is _____.
8. The abbreviation of a heart attack is _____ .
9. When you carry a pathogen in your body, you are the _____.
10. A _____ is when a disease spreads to many different countries.
11. MRSA stands for_____ _____ .
12. _____ kill microbes on the surfaces.
13. Virus H1N1 was better known as _____ _____ .
14. The machine which helps patients breathe is _____ .
15. The name of the machine that gives electric shocks to restart the heart is _____-

16. The largest artery of the body which is 2.54 cm wide is _____.
17. One of the largest veins, which receives blood from the upper body, is _____ .
18. In _____, the blood circulates into the body's systems, bringing oxygen to all its organs, structures and tissues and collecting carbon dioxide waste.
19. In _____, the blood circulates to and from the lungs, to release the carbon dioxide and pick up new oxygen.
20. _____ is a long thin tube passed into the artery at the tip of which is a balloon which is inflated when everything is in place.
21. A small spring-like device which holds the artery open is called a _____

**2. Ниже приведены описания четырех состояний, которые могут вызвать кашель у детей ночью. Заполните пробелы в предложениях, используя слова из таблицы.**

| | | | |
|---|---|---|---|
| coughing up | occurs | are | make |
| accompanied | sounds | get | |
| breathe | wheeze | has | |

**Asthma**

Children with asthma cough and _____ 1 when they breathe out. They become very short of breath when an attack _____ 2.

**A cold**

Sometimes a child _____ 3 a cough and a fever with a cold. A bad cough can _____ 4 a child vomit.

**Croup**

Children under three years old sometimes __ 5 croup. They have a sore throat and wheeze when they _____ 6 in. When they cough it often _____ 7 like a dog barking.

**Pneumonia**

The symptoms of pneumonia _____8 a temperature of over 39º C, fast breathing, sometimes _____ 9 by vomiting and sometimes _____ 10 blood.

**3. Выберите правильный ответ.**

1. The two upper chambers are called
a. ventricles c. artery
b. atria d. valves
2. Oxygen-rich blood from the lungs enters the heart through the
a. left atrium c. left ventricle
b. right atrium d. right ventricle
3. From the right atrium blood is pumped to the
a. brain c. right ventricle
b. lungs d. capillary network
4. The heart chamber that works hardest is the
a. right atrium c. left atrium
b. right ventricle d. left ventricle
5. The blood vessels that carry blood back to the heart are the
a. arteries c. capillaries
b. veins d. ventricles

6. The cells that contain haemoglobin are the
a. plasma c. white blood cells
b. platelets d. red blood cells
7. Red blood cells are produced in the
a. heart c. spleen
b. liver d. bone marrow
8. Platelets help the body to
a. control bleeding c. carry oxygen
b. fight infection d. do all of this
9. General signs and symptoms common to many infectious diseases **do not** include:
a. loss of appetite c. fatigue
b. muscle aches d. dyspnoea
10. Which of the following diseases is **not** contagious?
a. the flu c. mumps
b. stroke d. chickenpox

**4. Напишите ответы на вопросы, используя Perfect Simple или Perfect Continuous.**
*e.g. Have you given out the medication? (not yet)*
*I haven't given out the medication yet.*

1. How long have you been having problems? (two years)
_____

2. Have I been given a different bed? (no)
_____

3. How many tablets have you taken? (only a handful)
_____

4. Where has the patient been sent? (to Outpatients for tests)
_____

5. What has she been doing all morning? (take tests)
_____

**5. Задайте все возможные типы вопросов к следующему предложению.**
Mr Jenkins now takes an aspirin every day to prevent blood clots.
1. _____
_____.
2. _____
_____.
3. _____
_____.
4. _____
_____.
5. _____
_____.

**6. Закончите данные разделительные вопросы.**
1. He has myocardial infraction, _____?
2. You have a new uniform, _____?
3. Please take the temperature in this patient, _____?
4. Professor Milton always tells jokes at the end of his lectures, _____?
5. There isn't much work today, _____?
6. Let's prepare a presentation on contagious diseases, _____?
7. Don't drink too much at the party, _____?
8. I'm right, _____?

**7. Поставьте глаголы в скобках в Present или Past Continuous Passive или Active.**
1. What did the lecturer say? – Sorry, I don't know. I _____ (not listen).
2. The ward _____ (clean) while I was there.
3. Your friend can't speak with you now. He ___ _____ (examine) by the surgeon.
4. Attention, please! The catheter _____ _____ (insert).
5. What _____ you _____ (do) when I called you yesterday?
6. While I _____ (sleep), my friend _____ (learn) Latin.
7. Our new professor is only 26! He _____ _____ (discuss) all over the country.
8. While an x-ray_____ (take) no one was allowed into the room.

**8. Трансформируйте следующие предложения в косвенную речь.**
1. 'I can diagnose cardiac diseases.' – My friend boasted (that) _____
_____.
2. 'How long have you had this pain?' She asked me _____ _____
_____.
3. 'You'll be allowed to go for a walk tomorrow.' – My doctor promised that _____
_____.
4. 'Do you smoke or drink alcohol?' I asked her
_____.
5.. 'Who usually examines patients at night?' I asked him _____.
6. 'You follow all my recommendations, don't you?' She asked me _____
_____.
7. 'It would be better to get vaccinated against flu,' said Dr Black. Dr. Black_____
_____.
8. 'Remember to take your beta-blockers in time', the doctor told Kate.
The doctor_____

**9.Закончите следующие предложения, используя активную лексику уроков 7-8.**

1. The organ where bile is stored is the _____ .
2. The major portion of the large intestine extending from the caecum to the rectum is _____.
3. The most common cause of ulcers is _____.
4. The procedure of using an enteroscope for the direct visualization of small intestine is _____.
5. An _____ is used for examining parts of the body which are not visible from outside.
6. A painful sensation when touched is _____. _____ .
7. The process of passing faeces is known as _____ .
8. GIT stands for _____ .
9. What part of the body does cirrhosis affect? _____ .
10. Stool is another word for _____ .
11. The name of the procedure when the appendix is removed is _____ .
12. Gastritis usually affects _____ .
13. Extreme tiredness resulting from mental or physical exertion or illness is known as _____.
14. The contents of the intestines are pushed forward thanks to the involuntary constriction and relaxation of the muscles which are called _____.
15. The organ in the body that stores iron and vitamins is _____.
16. To _____ from alcohol means not to drink alcohol at all.
17. The first portion of the small intestine is _____.
18. Liver diseases are often accompanied by _____ caused by obstruction of the bile duct.
19. _____ is an abnormal enlargement of a part of the body, typically as a result of an accumulation of fluid.
20. Food is enclosed in your stomach by two circular muscles, known as _____

**10. Текст описывает абсорбцию и метаболизм аторвастатина. Заполните пробелы в предложениях, используя слова из таблицы.**

| | | | |
|---|---|---|---|
| metabolised | inhibiting | leads to | |
| passes into | goes into | enters | via |
| released into | causes | mixes with | |

After you swallow the tablet, it _____ 1
the GIT. It _____ _____ 2 the oesophagus, the tube which _____ 3 the stomach. The tablet passes into your stomach, where it is absorbed. It _____ _____ 4 the liquids there so it can pass into your bloodstream. It then _____ _____5 the liver _____ 6
the small intestine, the part under the stomach. The drug is _____ 7, or chemically changed, in the liver. The liver stops the production of an enzyme which _____ 8
the body to produce a harmful type of cholesterol.
By _____ 9 this enzyme, the amount of “bad cholesterol” which is _____ _____10 the blood is reduced.

**3. Заполните таблицу. Дополните каждую колонку своими собственными словами и выражениями.**

*cirrhosis, hepatitis, itching, jaundice, dizziness, kidney failure, swelling, nausea, constipation, diarrhoea, emesis, FOB, abdominal discomfort, guarding, peptic ulcer, shifting dullness, stomach ulcer, pernicious anaemia, hiccups, appendicitis, tenderness, loss of appetite, stroke*

| Diseases | Signs | Symptoms |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**11. Тест.**

**a. Выберите ответ «правильно» или «неправильно»**

1. The job of the digestive system is to break food down so that our bodies can use it as fuel or energy.
**a.** true **b.** false

2. Your stomach is located right behind your belly button.
**a.** true **b.** false

3. Your small intestine is approximately 90–100 cm long.
**a.** true **b.** false

4. The large Intestine is responsible for removing water from the undigested food, turning it from a liquid paste into solid waste.
**a.** true **b.** false

5. The esophagus is a muscular tube that carries food from our mouth to our stomach.
**a.** true **b.** false

6. Everything we eat is completely digested and used by our bodies.
**a.** true **b.** false

**b. Выберите правильный ответ.**

7. What is inside your stomach that helps break food down into a thick liquid paste?
**a.** water **b.** acids and enzymes
**c.** villi **d.** proteins and fats

8. What are the tiny finger-like projections called that are inside the small intestine? These tiny finger-like projections absorb the nutrients form the food and send the vitamins, minerals, proteins, carbohydrates and fats into our bloodstream.
**a.** capillaries **b.** hair
**c.** villi **d.** lashes

9. After the food leaves our stomach it heads into which part of the digestive system?
**a.** esophagus **b.** pancreas
**c.** large intestine **d.** small intestine

10. What is removed from the undigested food when it is in the Large Intestine?
**a.** water **b.** nutrients
**c.** enzymes **d.** sugar

11. Which of these is a disease of the liver?
**a.** cyanosis **b.** cirrhosis
**c.** stenosis **d.** psychosis

12. Which procedure **cannot** endoscopes be used for?
**a.** diagnosis **b.** biopsy
**c.** blood test **d.** excision of polyps

**12. Выберите правильный ответ.**

1. The patient will be allowed to go home if his temperature _____ normal.
**a.** will be **b.** would be
**c.** is **d.** were

2. It wouldn't surprise me if she _____ the answer.
**a.** wouldn't know **b.** didn't know
**c.** doesn't know **d.** wouldn't have known

3. If I _____ cleverer, I'd help you with this test.
**a.** am **b.** is
**c.** were **d.** would be

4. If I hadn't studied, I _____ the exam.
**a.** hadn't passed **b.** wouldn't have passed
**c.** wouldn't pass **d.** didn't pass

5. Don't hesitate to call me if you _____ any problems.
**a.** have **b.** had
**c.** will have **d.** would have

6. If endoscopy _____, I wouldn't have made a correct diagnosis.
**a.** wasn't performed **b.** hadn't been performed
**c.** didn't perform **d.** hadn't performed

7. If fluid is present, the dull note _____ on percussion moves.
**a.** will hear **b.** would be heard
**c.** would hear **d.** will be heard

8. If the patient _____ to hospital yesterday, he might have survived.
**a.** had taken **b.** would have been taken
**c.** had been taken **d.** would have taken

9. If I _____ you, I would take part in the conference.
**a.** were **b.** am
**c.** is **d.** would be

10. Please tell me at once if you _____ any discomfort.
**a.** felt **b.** would feel
c. will feel **d.** feel

11. The physician would have recommended biopsy if she _____ stomach cancer.
**a.** suspected **b.** had suspected
**c.** would suspect **d.** hadn't suspected

12. What _____ you _____ if the patient had internal bleeding?
**a.** would …do **b.** will … do
**c.** do … do **d.** had … done

13. I _____ a bad mistake if I hadn't read the instructions.
**a.** would make **b.** will make
**c.** would have made **d.** had made

# UNIT IX. THE IMMUNE SYSTEM

**In this unit**

- talking about types of immunity
- describing different types of vaccines
- *equivalents of modals to express past and future*

**A child being immunized against polio**

## Lead-in

**1. Интересные факты.**

- The average macrophage can engulf 100 bacteria a second.
- A plasma cell (B cell) can produce over 2,000 antibodies per second.
- The thymus gland, the site of T cell maturation, reaches its maximum size when a person is age 12, then decreases in size with age.
- Vaccinations against smallpox have been in use since the time of the ancient Chinese civilizations.
- The vaccine mechanism was invented by **Edward Jenner**, a British physician, in 1797, when he found that patients could become immune to the devastating effects of the smallpox disease (which had a mortality rate of 40 per cent) through exposing or inoculating patients with small amounts of the cowpox disease, which is a weaker form of the smallpox disease.

**2. Ответьте на следующие вопросы:**

- Which of the following diseases can be prevented with the help of immunization?

| | | |
|---|---|---|
| polio | tetanus | diphtheria |
| gastritis | bronchitis | tuberculosis |
| mumps | rubella | hepatitis |
| AIDS | pertussis | measles |

- Have you ever been immunized? Against what diseases?
- Which immunizations are obligatory in Russia?
- Why are many parents refusing vaccination for their children nowadays?
- Why is there a new flu vaccine every year?

**3. Прочитайте текст об иммунной системе и подготовьтесь к его обсуждению:**

- What is immunity?
- Types of immunity
- What is vaccination?
- Types of vaccines
- Should vaccination be obligatory? Why? Why not?

**Nurse giving an intramuscular immunization**

*The immune system is amazingly complex. It can recognize and remember millions of different enemies, and it can produce secretions (release of fluids) and cells to match up with and wipe out nearly all of them.*

# Reading

## The Immune System

The **immune system** is a network of cells, tissues, and organs that work together to defend the body against attacks by "foreign" **invaders,** called **antigens**.
Bacteria, viruses and other microbes **threaten** your body every day. But when a disease-causing microorganism enters your body, your immune system makes a **defense**, producing proteins called **antibodies** to fight off antigens. The **goal** of your immune system is to prevent illness by destroying antigens or making them harmless.

### Immunity: Natural and Artificial

Long ago, physicians realized that people who had recovered from the plague would never get it again - they had **acquired** immunity.
Immunity is the specific **resistance** to disease, and all of the cells and tissues involved with the production of immunity are sometimes considered to be part of the immune system. The immune system is a physiologic system that includes not only the lymphatic system but components of **integumentary**, cardiovascular, respiratory, digestive and other systems.
Your body can become immune to bacteria**,** viruses and other microbes in two ways:

- By getting a disease (natural **immunity**)
- Through **vaccines** (artificial (vaccine-induced) immunity)

In either case as soon as you have immunity to a disease-causing organism, you're better protected from becoming ill.

#### Natural immunity

Natural immunity develops after you've been ill with a certain disease. Your immune system makes a set of defenses to prevent you from getting sick again from that particular type of virus or bacterium. As soon as the antigen enters your body again antibodies **react** immediately and **attack** the microorganism before the disease can develop. Your immune system can effectively **destroy** thousands of different organisms.

#### Artificial (Vaccine-Induced) Immunity

**Vaccine-induced** immunity results after you receive a vaccine. The vaccine makes your body think that it's being invaded by a specific organism, and your immune system goes to work to destroy the antigen and prevent it from infecting you again. If you become ill with a disease for which you've been vaccinated, the invading microbes are met by antibodies that will destroy them. The immunity you develop after vaccination is similar to the immunity acquired from natural infection. The vaccines are usually given by injections, orally or as a nasal spray.

### Immunization. Types of Vaccines

Immunization is a way to improve your immune system and prevent serious, life-threatening diseases. **Immunization** is done through various techniques, most commonly **vaccination**.
For many years, healthcare providers have used vaccination to help the body's immune system prepare for future attacks. Vaccines consist of killed or modified microbes, parts of microbes, or microbial DNA that trick the body into thinking an infection has occurred.
A vaccinated person's immune system attacks the harmless vaccine and prepares for invasions against the kind of microbe the vaccine contained. In this way, the person becomes immunized against the microbe. Though many parents are worried that some vaccines are not safe and may harm their baby or young child, vaccination remains one of the best ways to prevent infectious diseases, and vaccines have an excellent safety record. Previously devastating diseases such as smallpox, polio, and whooping cough (pertussis) have been greatly controlled or eliminated through worldwide vaccination programs.

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Словообразование.**

| Verb | Noun |
|---|---|
| to resist | |
| to defend | |
| to react | |
| to immunize | |
| to vaccinate | |
| to produce | |
| to attack | |
| to invade | |
| to threaten | |
| to destroy | |
| to spread | |

**3. Составьте словосочетания, используя слова из таблицы. Используйте каждое слово только один раз.**

*microorganisms, disease-causing, immune, a vaccine, foreign, nasal, the invader, natural, a defense, protein*

1. _____ microorganisms
2. _____ immunity
3. _____ system
4. _____ invaders
5. _____ spray
6. to make _____
7. to fight off _____
8. to produce _____
9. to receive _____
10. to destroy _____

**4. Вставьте правильный предлог, затем составьте предложения с несколькими словосочетаниями.**

**1** to prevent smb ____ getting sick; **2** to fight ____ the invader; **3** to be met _____ antibodies; **4** the immunity acquired _____ natural infection; **5** thousands _____ different microorganisms; **6** to go ____ work; **7** the goal _____ the immune system; **8** to be ill _____ a disease; **9** to become immune _____ viruses; **10** to be protected ____ becoming ill; **11.** to immunize _____ disease.

_____
_____
_____

**5. Заполните пробелы словами и словосочетаниями из упр. 2-4.**

1. In the world measles is a disease of children because most adults possess _____.
2. Mortality from measles depends on _____ of population to bacterial pathogens
3. BCG is an intradermal _____ against tuberculosis used around the world for more than 40 years.
4. Mucus is a thick liquid _____ inside the nose and mouth to protect them against foreign _____.
5. Many people _____ badly to penicillin.
6. Immunotherapy refers to types of treatment that stimulate, enhance and suppress the body's own _____ system.
7. It is very important to stop the _____ of the disease immediately.
8. Many devastating diseases can now be prevented through aggressive _____ programs.
9. Cancer is not the only _____ condition among diseases nowadays.
10. Contagious diseases _____ from one person or organism to another by direct or indirect contact.
11. Many people on our planet are concerned about the _____ of the rainforests.

**6. Выберите правильный вариант ответа.**

**1.** The immune system produces antibodies
- **a** when invaders threaten your body
- **b** when you get infected
- **c** when bacteria become harmless

**2.** The vaccine is effective because if you get vaccinated your immune system
- **a** will produce necessary antibodies
- **b** will attack your organism
- **c** will threaten your body

**3.** Natural immunity will develop
- **a** after your have received a vaccine
- **b** after the illness has been prevented
- **c** after you have been ill

**4.** Natural immunity and vaccine-induced one are
- **a** very different
- **b** almost the same
- **c** develop in different people

**5.** The vaccines are usually given
- **a** by injections and orally
- **b** orally and nasally
- **c** all the above mentioned

# Language Development

**1. Просмотрите текст об иммунной системе еще раз и ответьте на вопросы.**

1. What does the immune system consist of? What is its role in the organism?

_____
_____

2. What is immunity?

_____

3. What types of immunity are there? How does each type develop?

_____

4. What is immunization? What is the role of immunization?

_____

5. What types of vaccines do you know? How do vaccines work?

_____
_____

6. How are vaccines usually given?

_____

**2. Какое из утверждений указывает на положительный/отрицательный эффект иммунизации? Отметьте каждое утверждение соответственно буквами *P* или *N*.**

- Immunization has decreased the incidence of several serious illnesses — including diphtheria, tetanus, measles and polio — by more than 95 per cent since the beginning of the 20th century. _____
- Vaccines rarely put people at risk of the serious complications of infection. _____
- Vaccines can cause serious damage to the health of a child. _____
- Vaccines aren't 100 per cent protective. Most childhood vaccines are effective for 85 percent to 95 percent. _____
- During a disease epidemic, some vaccinated people will catch the disease. However, those who were immunized usually have a less serious illness, while those not vaccinated are in a greater danger. _____
- Manipulating the immune system with 33 doses of 10 different vaccines before the age of five (in the USA) weakens immunity, leaving the child vulnerable to other infectious diseases. _____

**3. Ознакомьтесь со следующей информацией, приготовьтеь ответить на вопросы:**

- What types of vaccines are there?
- What diseases are different types of vaccines given against?

## Different Types of Vaccines

**Preparation of measles vaccine**

The first human vaccines against viruses were based on using weaker or **attenuated** viruses to generate immunity. The smallpox vaccine used cowpox, a poxvirus that was similar enough to smallpox to protect against it but not to cause a serious illness. Rabies was the first virus attenuated in a lab to create a vaccine for humans.

Four different types of vaccines are currently available:

- **Live virus vaccines** use the weakened (or attenuated) form of the virus. The measles, mumps, and rubella (MMR) vaccine and the varicella (chickenpox) vaccine are examples of this type.
- **Killed (inactivated) vaccines** are made from a protein or other small pieces taken from a virus or bacteria. Influenza shots are an example of this type of vaccine.
- **Toxoid vaccines** contain a toxin or chemical made by the bacteria or virus. They make you immune to the harmful effects of the infection, instead of to the infection itself. Examples are the diphtheria and tetanus vaccines.
- **Biosynthetic vaccines** contain human-made substances that are very similar to pieces of the virus or bacteria. The Hib (*Haemophilus influenzae* type B) conjugate vaccine is one example.

# Grammar Point

## Equivalents of Modals to Express Past and Future

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/hilfsverben2.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/modals/substitute_forms_tenses.htm

https://www.englisch-hilfen.de/en/exercises/modals/substitute_forms_tenses_2.htm

https://www.englisch-hilfen.de/en/exercises/modals/substitute_forms.htm

**3. Проект.**
**Search the web to answer the following questions:**

## Top 10 Questions about Vaccination

1. Why aren't all vaccines 100% effective?
2. Why are there so many vaccines?
3. Is natural immunity better than artificial immunity?
4. Can babies' immune systems handle so many vaccines?
5. Can you get a disease from the vaccine that's supposed to prevent it? And why do some vaccines have live pathogens but others have killed pathogens?
6. Why is allergy to eggs a contraindication to getting some vaccines?
7. People say that vaccines are linked to long-term health problems such as multiple sclerosis, diabetes, and autism. Is that true?
8. Do we do enough safety testing with vaccines?
9. Why can't we eradicate other diseases, as we did with smallpox?
10. Is the polio vaccine linked to HIV? cancer?

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can talk about about types of immunity
- I know different types of vaccines and what diseases they are used against
- I can use the equivalents of modals to express Past and Future

# Key Words

acquired /q ˈkwaɪqd/ *adj*
antibody /ˈɤntɪbɔdɪ/ *n*
antigen /ˈɤntɪʛqn/ *n*
attack /q ˈtɤk/ *v, n*
attenuated /q ˈtɛnjuɛɪtɪd/ *adj*
defend /dɪ ˈfɛnd/ *v*
defense /dɪ ˈfɛnʂ/ *n*
destroy /dɪ ˈʂtrɔɪ/ *v*
goal /ʛqul/ *n*
immune system /ɪ ˈɱjʧɪn ˈʂɪʂtqɱ/
immunity /ɪ ˈɱjʧɪnɪtɪ/ *n*
immunization /ɪˌɱjunaɪ ˈzɛɪʃqn/ *n*
integumentary /ɪn ˈtɛgju ˈɱɛntqrɪ/ *adj*
invader /ɪn ˈvɛɪdq/ *n*
react /rɪ ˈɤkt/ *v*
resistance /rɪ ˈzɪstqnʂ/ *n*
threaten /ˈƮrɛtqn/ *v*
toxoid /ˈtɔkʂɔɪd/ *n*
vaccination /ˌvɤkʂɪ ˈnɛɪʃqn/ *n*
vulnerable /ˈvɁlnqrqbl/ *adj*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT X. ALLERGY

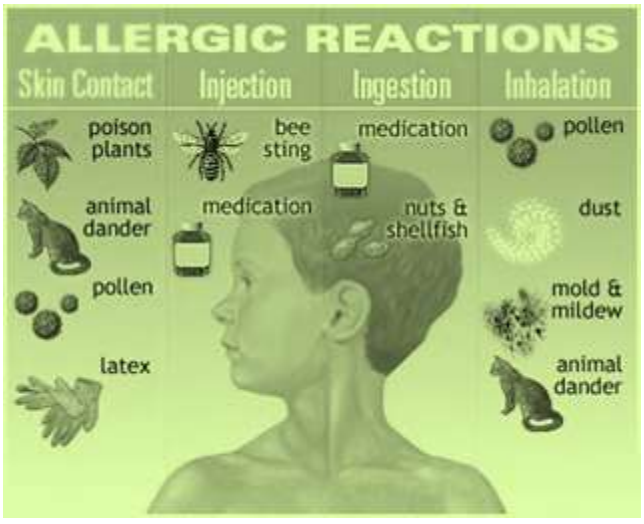
**In this unit**

- talking about different types of allergy
- describing aetiology of allergy
- describing symptoms of allergy
- *Modal Verbs in the Second Meaning*

## Lead-in

**1. Интересные факты.**

- Allergy is a very common disorder. At the end of the XX century more than 300 million people in the world were registered to have bronchial asthma.
- Nowadays in Russia 20-30% of people suffer from allergic diseases, and the number increases with each year.
- The term and concept of "*allergy*" was coined by a Viennese pediatrician named Clemens von Pirquet in 1906. He observed that the symptoms of some of his patients might have been a response to outside allergens such as dust, pollen, or certain foods.




**2. Попробуйте угадать значение выделенных слов из контекста.**

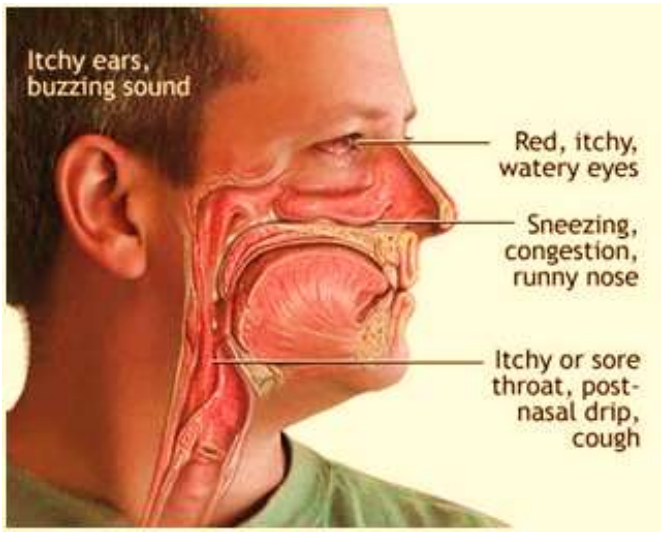
1. **Pollen** of the flowers is transferred with the help of bees.
2. Look! There's a lot of **dust** on the table and computer, and on the floor. Could you clean up the room?
3. Many people do not have animals at home because they are allergic to their **dander**.
4. **Rash** on the skin is a symptom of measles, chickenpox and other infectious diseases.
5. Mosquito bites are quite **itchy**.

**3. Посмотрите на рисунки и ответьте на вопросы.**

- What substances can cause allergy?
- What are the most common symptoms of allergy?
- Have you ever had allergy?
- Do you know any treatment for allergy?
- Is allergy inherited?

**4. Прочитайте текст об аллергии и подготовьтесь к его обсуждению, используя подзаголовки в качестве плана.**

**Symptoms of Allergy**



*I've developed an allergic reaction to lazy people. Symptoms of this allergy include headaches, nausea, and a sudden urgent desire to kill someone.*

# Reading

## Allergy

### What is allergy?

Medical scientists are becoming more and more interested in allergies. An **allergy** is a condition caused by an excessive reaction of the immune system (**hypersensitivity**) to a substance or substances which would not normally cause a disease. In fact, some researchers do not classify allergies as diseases, although they can be just as troublesome. Severe reactions can even result in death.

### Allergens

Substances that cause allergies are called **allergens**. The most common natural allergens are dust and **pollen,** animal **dander**, drugs and foods, mold and insect venom. Some plants and flowers give out pollen to the atmosphere during spring and early summer. Many people develop symptoms like those of the common cold such as **watery** eyes and nose, sneezing and a slight rise in temperature. This is commonly called **hay fever**. Allergic reactions can also be caused by food. Milk and eggs are known to be allergenic for some people. However, almost anything eaten, drunk, inhaled or touched can cause a reaction.

Drugs, even the common ones like aspirin, can result in **distressing** symptoms. Some are dangerous. When penicillin was first manufactured on a large scale, it proved to be effective against many pathogens. But it had a tendency to cause reactions so strong that patients sometimes died. The sulpha drugs were also quite dangerous, although **they** did not kill as many people as penicillin did. We now have better **antibiotics**, but they must be taken with great care.

### Symptoms

Typical allergic reactions involve irritation and inflammation (swelling) in the body. Symptoms may include:

- sneezing
- **wheezing**
- sinus pain (pressure or pain high up in the nose, around the eyes and at the front of the skull)
- runny nose
- coughing
- **nettle rash** (hives)
- swelling
- **itchy** eyes, ears, lips, throat and palate
- shortness of breath
- sickness, vomiting and diarrhoea

It is important to remember that these symptoms can also be caused by other conditions, so see your GP for advice if you're not sure what's causing your symptoms.

### Anaphylaxis

In very rare cases, an allergy can lead to a severe allergic reaction called anaphylactic shock, which can be fatal.

Most allergic reactions occur locally in a particular part of the body, such as the nose, eyes or skin. In anaphylaxis, the allergic reaction **involves** the whole body and usually happens within minutes of coming into contact with a particular allergen. The symptoms of anaphylactic shock can include any or all of the following:

- swelling of the throat and mouth
- difficulty swallowing or speaking
- difficulty breathing
- a **rash** anywhere on the body
- flushing and itching of the skin
- stomach **cramps**, nausea and vomiting
- a sudden feeling of weakness due to a fall in blood pressure
- **collapse** and **unconsciousness**

If you have anaphylactic shock, you will require emergency treatment, usually with an injection of a medicine called adrenalin.

### Treatment

There is no sure remedy for allergies. Sometimes the body cures itself. Treatment might consist of giving drugs either to reduce the symptoms or to **suppress** the reaction. Drugs of the second type are called **antihistamines**. They are not always effective, and they tend to make the patient sleepy. Some doctors think it is better to identify and avoid the allergen, but this in not always possible.

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Заполните пробелы словами из таблицы. Используйте каждое слово только один раз.**

| |
|---|
| *swelling, rash, sinus, watery, runny, breathing, anaphylactic, allergic, hay, cramps,* |

1. _____ eyes
2. _____ reaction
3. difficulty _____
4. _____ nose
5. _____ pain
6. _____ fever
7. itchy _____
8. stomach _____
9. _____ of the mouth
10. _____ shock

**3. Заполните пробелы словами *hurt(s)* или *sore*. Обратите внимание на использование этих слов.**

| |
|---|
| **NB! Hurt** is a verb:<br>*e.g. My foot **hurts**.*<br>**Sore** is an adjective:<br>*e.g. I have a **sore** foot.*<br>*My foot is **sore.*** |

1. It _____ the eyes to look at the sun.
2. Take care! My arm is so _____ .
3. If I had a _____ throat when a child I didn't go to school.
4. His chest _____ when he coughs.
5. If your eyes are _____ when you are around animals go to see an allergist.

**4. Заполните пробелы предлогами.**

### Signs and Symptoms of Allergy

Allergy is characterised _____ **1** a local or systemic inflammatory response to allergens.

***Local symptoms*** are those affecting different parts _____ **2** the body:

*Nose*: swelling of the nasal mucosa (allergic rhinitis)

*Eyes*: redness and itching of the conjunctiva (allergic conjunctivitis)

*Airways*: bronchoconstriction, wheezing and dyspnoea, sometimes attacks of asthma

*Ears*: feeling of fullness, possibly pain, and impaired hearing due _____(**3**) the lack of eustachian tube drainage.

*Skin*: various rashes, such _____(**4**) eczema, hives (urticaria) and contact dermatitis.

*Head*: while not as common, headaches are seen in some with environmental or chemical allergies.

***Systemic allergic response*** is also called anaphylaxis. Depending _____ **5** the rate of severity, it can cause cutaneous reactions, bronchoconstriction, oedema, hypotension, coma and/or even death.

Hay fever is one example of an exceedingly common minor allergy - large percentages of the population suffer _____ **6** hay fever symptoms _____ **7** response to airborne pollen. Asthmatics are often allergic _____ **8** dust mites. Apart _____ **9** surrounding allergens, allergic reactions can be caused _____ **10** medications.

**5. Заполните пробелы словами из таблицы.**

| |
|---|
| *allergic, injected, known, marked, reduce, performing, sensitive, suspected, testing, within* |

### Diagnosis of Allergy

There are several methods for the diagnosis and assessment of allergies.

**Skin test**

The typical and most simple method of diagnosis and monitoring of allergies is by skin testing, also _____(**1**) as prick testing due to the series of pricks made into the patient's skin. Small amounts of _____(**2**) allergens and/or their extracts (pollen, grass, mite proteins, peanut extract, etc.) are introduced to sites on the skin _____(**3**) with pen or dye (the ink/dye should be carefully selected, lest it cause an allergic response itself). The allergens are either _____(**4**) intradermally or into small scratchings made into the patient's skin, often with a lancet. Common areas for _____(**5**) include the inside forearm and back. If the patient is _____(**6**) to the substance, then a visible inflammatory reaction will usually occur _____(**7**) 30 minutes. This response will range from slight reddening of the skin to full-blown hives in extremely _____(**8**) patients. After _____(**9**) the skin test and receiving results, the doctor may apply a steroid cream to the test area to _____(**10**) discomfort (such as itching and inflammation).

# Language Development

**1. Укажите, какие утверждения верны (T), а какие ошибочны (F).**

1. _____ A substance causing an allergy can easily be avoided.
2. _____ Some scientists do not think allergies are diseases.
3. _____ Early antibiotics were quite dangerous.
4. _____ Penicillin is an effective antihistamine.
5. _____ The common cold is also known as hay fever.
6. _____ Dust and pollen are the rarest allergens in nature.
7. _____ There is no definite treatment for allergies.

**2. Просмотрите текст об аллергии и выполните следующий тест.**

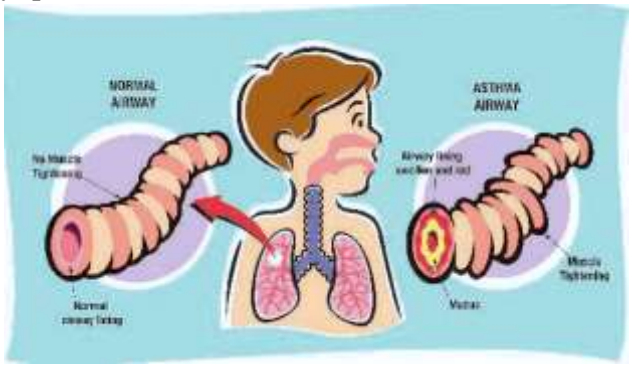
1. Sulpha drugs were _____ than penicillin.
**a** less dangerous **c** more common
**b** more dangerous **d** less common

2. The word '**they**' in the text refers to _____
**a** drugs **c** penicillin drugs
**b** sulpha drugs **d** better antibiotics

3. The word '**antibiotics**' in the text means
**a** chemicals that work with life
**b** chemicals that work for life
**c** drugs that work against allergies
**d** drugs that work against life

4. From the last paragraph of the text you can conclude that **antihistamines** are
**a** allergy causing substances.
**b** disease causing agents.
**c** drugs to suppress allergic reactions.
**d** drugs to reduce the severity of the symptoms.

**5. a. Прочитайте текст об астме, выполните упражнения.**




**On the left: Normal airway. On the right: Asthma airway**

**ASTHMA**

Asthma is a disease of the lungs that causes wheezing, coughing, chest tightness and difficulty breathing. It can be very **scary** for the patient. Luckily, asthma and its effects are **reversible** with medication.

Asthma attacks are the periods when symptoms suddenly become worse. Some common **triggers** for these attacks are exercise, infections, dust, tobacco smoke, allergens, cold air and nervousness.

Limiting **exposure** to these triggers may help improve quality of life. When an asthma attack occurs, take your medication according to your asthma action plan, and wait 10 to 15 minutes. If symptoms worsen or don't improve immediate medical attention may be necessary. Some danger signs are severe wheezing or coughing, **trouble walking**, and blue lips or fingernails. If any of these danger signs occur go to the emergency room or call 103.

Asthma is a lifelong disease. The effects of asthma attacks on the lungs can cause serious problems later in life. Proper management of asthma is very important.

**b. Найдите слова и фразы в тексте, имеющие следующее значение.**

a. causing fear or alarm _____
b. a state of being subjected to some influence _____
c. being contrary or opposite to what has just been _____
d. an immediate cause of some reaction _____
e. difficulty walking _____

**6. Просмотрите текст об аллергии и ответьте на вопросы.**

1. What is allergy? Is it a disease or not?
_____

2. What allergens are there?
_____

3. What are the most common symptoms of allergy?
_____

4. What are the most widespread allergic diseases?
_____

5. What is anaphylactic shock? What are its symptoms?
_____

6. Is there any treatment for allergy?
_____

# Grammar Point

## Modal Verbs in the Second Meaning

**1. Повторите грамматический материал по теме занятия:**

https://test-english.com/explanation/b1/modal-verbs-deduction-must-might-cant/

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.eltbase.com/quiz/200_02.htm

https://www.ecenglish.com/learnenglish/lessons/modal-verb-have-past-participle

https://web2.uvcs.uvic.ca/courses/elc/studyzone/410/grammar/410-modals-of-possibility-and-probability-for-past-situations1.htm

**3. Проект.**

**Surf the net and be ready to talk about how to prevent allergy and what may be done to reduce the risk of its developing in your home.**

**Study what is done by the *Allergy.UK:***
http://www.allergyuk.org
**How can people with allergy benefit from:**

- **Support Contact Network?**
- **Allergy UK Helpline?**
- **Translation cards?**

**other resources?**

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can talk about different types of allergy
- I know the aetiology of allergy
- I can describe symptoms of allergy
- I can use modal verbs in different meanings
-

# Key Words

allergen /ˈælədʒən/ *n*
allergy /ˈælədʒɪ/ *n*
anaphylaxis /ˌænəfɪˈlæksɪs/ *n*
antihistamine /ˌæntɪˈhɪstəmɪn/ *n*
asthma /ˈæsmə/ *n*
collapse /kəˈlæps/ *n*
conjunctivitis /kənˌdʒʌŋktɪˈvaɪtɪs/ *n*
cramp /kræmp/ *n*
dander /ˈdændə/ *n*
distress /dɪˈstrɛs/ *n*
hay fever /heɪ ˈfiːvə/
hives /haɪvz/ *n*
hypersensitivity /ˈhaɪpəˌsɛnsɪˈtɪvɪtɪ/ *n*
itchy /ˈɪtʃɪ/ *n*
nettle rash /ˈnɛtɪræʃ/ *n*
pollen /ˈpɒlən/ *n*
rash /ræʃ/ *n*
rhinitis /raɪˈnaɪtɪs/ *n*
suppress /səˈprɛs/ *v*
tightness /ˈtaɪtnəs/ *n*
unconsciousness /ʌnˈkɒnʃəsnəs/ *n*
urticaria /ɜːtɪˈkɛrɪə/ *n*
watery eyes /ˈwɒtərɪaɪz/
wheezing /ˈwiːzɪŋ/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT XI. THE ENDOCRINE SYSTEM

**In this unit**

- talking about the basic structures of the endocrine system
- describing the main functions of endocrine system and its disorders
- *Conditional Sentences: Type I*

## Lead-in

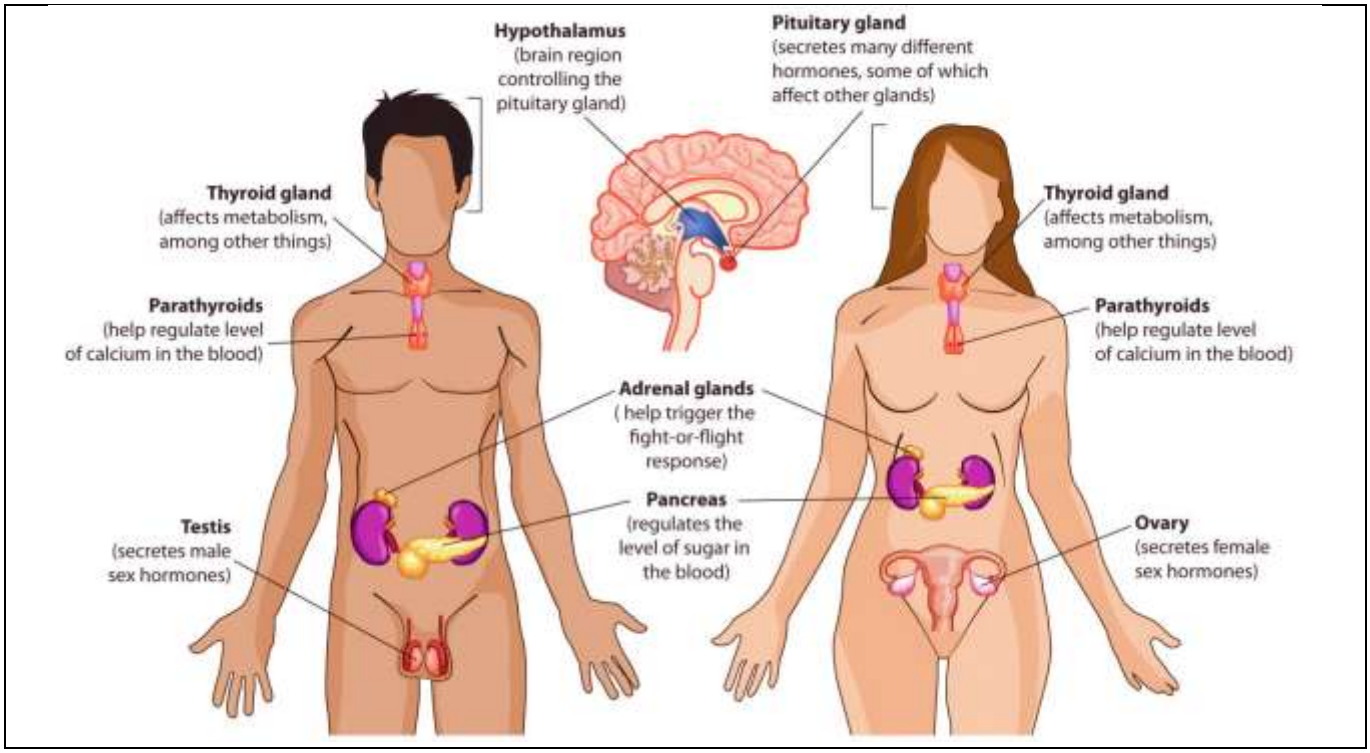
**1. Интересные факты**

- The word ***endocrine*** derives from the Greek words "endo," meaning *within*, and "crinis," meaning *secrete.*
- The endocrine system has no ducts. Therefore, the hormones it produces are released directly into the bloodstream. The blood then carries them to the various parts.
- The hypothalamus is the gland that makes you feel hunger and thirst
- The human behavior is also controlled by the endocrine system when it affects the nervous system.
- We must be thankful to the pineal gland for our sweet sleep. It secretes melatonin which regulates our sleep. It is also the smallest gland of the endocrine system.
- The rush of adrenaline one gets when facing adventure or fear is the result of the adrenal glands production of epinephrine hormone, or adrenaline as we otherwise know it
- In 1923, Frederick Banting and John Macleod won the Nobel Prize in Physiology or Medicine for discovering insulin, a hormone that regulates blood sugar levels.
- The gland producing insulin is the pancreas, the largest gland of the endocrine system.

**2. Рассмотрите рисунок и назовите части эндокринной системы.**

**3. Прочитайте текст об эндокринной системе. Выберите из списка утверждений A-E те, что лучше всего отражают содержание каждой части (1-4) текста. Здесь есть одно лишнее утверждение, которое вам не понадобится. В начале текста приведен пример (1).**

A. Definition of the endocrine system.
B. Anatomy of the endocrine system.
C. The functions of the endocrine glands.
D. Problems with the endocrine system.
E. The primary glands that compose the system.



*"If you skew the endocrine system, you lose the pathways to self. When endocrine patterns change, it alters the way you think and feel. One shift in the pattern tends to trip another."* *Hilary Mantel*

# Reading

## THE ENDOCRINE SYSTEM

**1. A**

The **endocrine system** is a widespread group of glands and organs that acts as the body's control system for producing, storing, and secreting chemical substances called hormones.
**Hormones** are compounds produced by the endocrine glands. They generally regulate metabolism, growth and development, tissue function, sexual function, sleep and mood, the electrolyte composition of body fluids and reproduction. The specific functions of the endocrine glands and pancreas are unique.

**2.**

The primary glands that compose the endocrine system are the **hypothalamus**, **pituitary**, **thyroid**, **parathyroid**, **adrenal**, **pineal**, **ovary**, and **testes**. The pancreas, considered both an organ and a gland, is also part of the system. The **thymus** is sometimes considered an endocrine-system organ. Although not part of the endocrine system, other organs that secrete hormones are the heart, brain, lungs, kidneys, liver, skin, and placenta.

**3.**

The **hypothalamus** is a part of the brain located superior and anterior to the brain stem and inferior to the thalamus. It serves many different functions in the nervous system, and is responsible for the direct control of the endocrine system through the pituitary gland.
The **pituitary gland** is a small pea-sized lump of tissue connected to the inferior portion of the hypothalamus of the brain. The pituitary gland secretes **endorphins**, chemicals that act on the nervous system to reduce sensitivity to pain. If the pituitary gland produces too much growth hormone, a child may grow excessively tall. If it produces too little, a child may be abnormally short. In addition, the pituitary secretes hormones that signal the ovaries and testes to make sex hormones.
The **pineal gland** is a small pinecone-shaped mass of glandular tissue found just posterior to the thalamus of the brain. The pineal gland produces the hormone **melatonin** that helps to regulate the human sleep-wake cycle.
The **thyroid gland** is a butterfly-shaped gland located at the base of the neck. It produces the thyroid hormones **thyroxine** (T4) and **triiodo-thyronine** (T3). These hormones control the rate of metabolism and play a key role in bone growth and development of the brain and the nervous system.
Attached to the thyroid are four tiny glands that function together called the **parathyroids**. They release parathyroid hormone, which regulates the level of calcium in the blood with the help of **calcitonin**, which is produced in the thyroid.
The body has two triangular adrenal glands, one on top of each kidney. The **adrenal glands** have two parts, each of which produces a set of hormones that regulate salt and water balance in the body, the body's response to stress, metabolism, the immune system, and sexual development and function.
The **reproductive** glands in women (**ovaries**) produce **estrogen**, in men (**testes**) – **testosterone**. These hormones regulate body changes associated with sexual development.

**4.**

An **excess** - too much, or a **deficiency** - too little, of circulating hormones causes a wide range of medical conditions, *e.g.,* **hyperthyroidism** and **hyporthyroidism**. Where there is an excess of hormone, one form of treatment consists of giving the patient something which inhibits the production of that hormone, as in the use of carbimazole to treat hyperthyroidism. When a hormone is deficient, treatment may be by **replacement therapy**, for example, injections of insulin in the treatment of Type I diabetes

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Найдите определения для данных слов и словосочетаний.**

| | |
|---|---|
| **1.** endocrine system | **a.** substitution, exchange |
| **2.** hormone | **b.** more than required |
| **3.** thymus | **c.** a group of cells that produces and secretes chemicals |
| **4.** excess | **d.** the organ that produces insulin |
| **5.** deficiency | **e.** shortage, lack |
| **6.** puberty | **f.** the period during which sexual organs develop |
| **7.** replacement | **g.** the organ in the neck that produces lymphocytes |
| **8.** pancreas | **h.** a chemical substance that influences cell and tissue functions |
| **9.** gland | **i.** the collection of glands, each of which secretes different types of hormones |

**3. Тест: Выберите правильный ответ, чтобы закончить следующие предложения.**

1. A group of cells that gives off or secretes chemicals is a (an)
**a**. artery. **b**. vein. **c**. gland.

2. Bodily chemical messengers that send messages from one set of cells to another, affecting changes are
**a**. hormones. **b**. nephrons. **c**. alveoli.

3. This links the nervous system to the endocrine system via the pituitary gland.
**a**. thalamus **b**. hypothalamus **c**. adrenal

4. The master gland that controls many bodily functions is
**a**. thalamus **b**. hypothalamus **c**. pituitary

5. This controls how quickly the body uses energy, makes proteins and controls how sensitive the body should be to other hormones.
**a**. adrenal gland **b**. hypothalamus **c**. thyroid

6. These glands control the amount of calcium in the blood and bones.
**a**. pituitary **b**. parathyroid **c**. thyroid

7. These release hormones in conjunction with stress.
**a**. adrenal **b**. pituitary **c**. thyroid

8. This affects wake/sleep patterns and seasonal functions.
**a**. pineal **b**. adrenal **c**. thyroid

**4. Закончите предложения, используя слова из упр. 2.**

1. The _____ is instrumental in regulating mood, growth and development, tissue function, and metabolism, as well as sexual function and reproductive processes.
2. The foundations of the endocrine system are the _____and glands.
3. A _____ selects and removes materials from the blood, processes them, and secretes the finished chemical product for use somewhere in the body.
4. The _____ is composed of two identical lobes and is located anatomically in the anterior superior mediastinum, in front of the heart.
5. Severe brain injury may also cause growth hormone _____.
6. The _____ growth hormone production is most often caused by a benign tumour of the pituitary gland.
7._____ is the process of physical changes by which a child's body matures into an adult body capable of sexual reproduction to enable fertilization.
8. _____ is responsible for the production of insulin and glucagon. The failure to produce insulin will result in diabetes.

**5. Посмотрите на картинку на стр. 20 и**
**a. опишите расположение следующих желез, используя выражения из таблицы.**

| | |
|---|---|
| above the kidneys | the neck |
| behind the | the pelvic area |
| breastbone | abdomen, near stomach |
| the base of brain | behind thyroid lobes |

**b. напишите названия гормонов, вырабатываемых следующими железами.**

1. Hypothalamus - _____
2. Pituitary - _____
3. Thymus - _____
4. Thyroid - _____
5. Parathyroids - _____
6. Adrenals - _____
7. Pancreas - _____
8. Ovaries - _____
9. Testes - _____

# Language Development

**1. Просмотрите текст об эндокринной системе и ответьте на вопросы.**

1. What system is known as the endocrine system?

_____
_____
_____

2. What are hormones?

_____
_____

3. What is the main function of the hypothalamus?

_____
_____
_____

4. What do the pituitary and pineal glands secrete?

_____
_____

5. Where are the thyroid and parathyroid glands located?

_____
_____

6. What glands regulate the level of calcium in the blood?

_____
_____

7. What is the main source of sex hormones?

_____
_____

8. What hormones do testes and ovaries secrete?

_____
_____
_____

9. What disorders of endocrine system do you know?

_____
_____
_____

10.? What are these disorders characterised by?

_____
_____
_____
_____

**2. Прочитайте текст о нарушениях эндокринной системы. Закончите предложения, используя слова из таблицы.**

| |
|---|
| thyroid, underproduction, tumour, imbalance, hormone, dryness, excessive, indication, condition, overproduction |

### Diseases of the Endocrine System

Hormone levels that are too high or too low are an _____ (1) of a problem with the endocrine system. Hormone diseases also occur if your body does not respond to hormones in the appropriate ways. Stress, infection and changes in the blood's fluid and electrolyte balance can also influence _____ (2) levels. **Adrenal insufficiency** is characterized by decreased function of the adrenal cortex and the consequent _____ (3) of adrenal corticosteroid hormones. The symptoms of adrenal insufficiency may include weakness, fatigue, abdominal pain, nausea, dehydration, and skin changes. Excessive amounts of glucocorticoid hormones can lead to **Cushing syndrome**. If the condition is due to a tumour in the pituitary gland that produces excessive amounts of corticotropin and stimulates the adrenals to _____(4) of corticosteroids. Common signs include a moon face, buffalo hump, increased facial hair, and thinning of the scalp hair. (See the above picture). Other symptoms include _____ (5) sweating, thinning of the skin and its ____(6), particularly on the hands, red striae.

**Hypothyroidism** occurs when the thyroid gland does not produce enough _____(7) hormone to meet the body's needs.

Insufficient thyroid hormone can cause many of the body's functions to slow or shut down completely. **Thyroid cancer** begins in the thyroid gland and starts when the cells in the thyroid begin to change, grow uncontrollably and eventually form a_____ (8).
In the picture you can see a young woman with hyperthyroidism presented with a mass in the neck and exophthalmos.
**Hypoglycemia**, also called low blood glucose, occurs when blood glucose drops below normal levels. This typically happens as a result of treatment for _____(9) when too much insulin is taken. A **metabolic disorder** occurs when there is an _____ (10) of substances needed to keep the body functioning — hormone levels may be too high or low. Metabolic disorder is when some organs become diseased or do not function normally.

**3. Определите гормон, дисбаланс которого вызывает следующие состояния.**

| | |
|---|---|
| **1.** an abnormally high level of blood glucose<br>**2.** low blood calcium and muscle spasm<br>**3.** an abnormally small stature for a person's age<br>**4.** an accelerated heart beat and increased blood flow<br>**5.** an abnormal level of metabolism in the body cells<br>**6.** decreased function of the adrenal cortex<br>**7.** destruction of adrenal tissue<br>**8.** changes in the female reproductive system<br>**9.** anxiety and mood disorders<br>**10.** depression, reduced muscle strength, high blood pressure | **a.** parathyroid<br>**b.** thyroxine<br>**c.** insulin<br>**d.** adrenaline<br>**e.** growth hormone<br>**f.** adrenal corticosteroid<br>**g.** glucocorticoid<br>**h.** melatonin<br>**i.** estrogen<br>**j.** testosterone |

**4. Определите следующую болезнь.**
It is a state in which the thyroid gland does not produce enough of the thyroid hormones thyroxine (T4) and triiodothyronine (T3).

# Grammar Point

## Conditional Sentences: Type I

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/if.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/if_clauses/type_1_mix3.htm

https://www.englisch-hilfen.de/en/exercises/if_clauses/type_1_mix2.htm

https://www.englisch-hilfen.de/en/exercises/if_clauses/type_1_mix4.htm

**3. Проект**
**Surf the net and prepare a resentation about endocrine disorders. Make sure to include the following:**

- **types of endocrine disorders**
- **causes and symptoms**

**preventionand treatment**

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can talk about the basic structures of the endocrine system
- I can describe the main functions of the endocrine system and its disorders
- I can use Conditional Sentences of Type I

# Key Words

adrenal /q`drJnql/ *adj*
calcitonin /,kxlsl`tqunln/ *n*
Cushing syndrome /`kuSlN `slndrqum/
deficiency /dl`flSqnsl/ *n*
endocrine system /`endqukraln `slstqm/
endorphin /en`dLfln/ *n*
estrogen /`estrqGqn/ *n*
excess /lk`ses/ *n*
gland /glxnd/ *n*
hormone /`hLmqun/ *n*
hyperthyroidism /,halpq`TalrOldlzm/ *n*
hypoglycaemia /,halpquglal`sJmlq/ *n*
hyporthyroidism /,halpqu`TalrOldlzm/ *n*
hypothalamus /,halpqu`Txlqmqs/ *n*
insufficiency /lnsq`flSqnsl/ *n*
melatonin /,melq`tqunln/ *n*
ovary /`quvqrl/ *n*
parathyroid /pxrq`TalrOld/ *n*
pineal /`plnlql/ *n*
pituitary /pl`tjHltqrl/ *n*
replacement therapy /rl`plelsmqnt `Terqpl/
reproductive glands /,rJprq`dAktlvglxndz/
testes /`testJz/ *n*
testosterone /te`stOstqrqun/ *n*
thymus /`Talmqs/ *n*
thyroid /`TalrOld/ *n*
thyroxine /Tal`rOksln/ *n*
triiodothyronine /tral,alqdqu`TalrqnJn/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT XII. DIABETES

**In this unit**

- talking about the main factors causing diabetes
- describing the types of diabetes and their treatment
- *Conditional Sentences*:*Type II and III*

## Lead-in

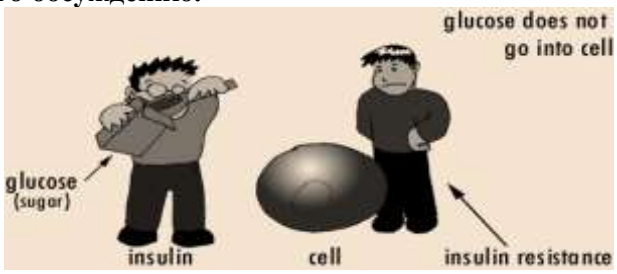
**1. Интересные факты.**

- The term ***diabetes*** (Greek: διαβήτης) was coined by Aretaeus of Cappadocia. It is derived from the Greek word διαβαίνειν, that literally means "passing through," a reference to one of diabetes' major symptoms - excessive urine production.
- In 1675 Thomas Willis added ***mellitus*** from the Latin word meaning a *sweet taste*. This had been noticed long before in ancient times by the Greeks, Chinese, Egyptians, and Indians.
- In 1776 Matthew Dobson confirmed the sweet taste was because of an excess of a kind of sugar in the urine and blood of people with diabetes.
- The ancient Indians tested for diabetes by observing whether ants were attracted to a person's urine, and called the ailment "*sweet urine disease*". The Korean, Chinese and Japanese words for diabetes all mean "sweet urine disease". Medieval European doctors tested for it by tasting the urine themselves.
- While the term, *diabetes*, usually refers to diabetes mellitus, there are several other, rarer, conditions also named diabetes. The most common of these is *diabetes insipidus*, in which the urine is not sweet; it can be caused by either kidney or pituitary gland damage.
- The term "**type 1 diabetes**" has universally replaced several former terms, including childhood onset diabetes, juvenile diabetes and insulin-dependent diabetes. "**Type 2 diabetes**" has also replaced several older terms, including adult-onset diabetes, obesity - related diabetes, and non-insulin dependent diabetes. Beyond these numbers, there is no standard, so a type 2 which has become insulin-dependent has sometimes been called **type 3**, while the same term is also used for gestational diabetes in some cases.


**2. В парах обсудите следующие вопросы.**

- Is diabetes a serious problem in Russia?
- What symptoms of diabetes have you heard about?
- What is your experience of dealing with patients having diabetes?

**3. Прочитайте текст о диабете и подготовьтесь к его обсуждению.**



*Medical experts believe that African Americans, Latino Americans, Native Americans, and some Asian Americans and Native Hawaiians or other Pacific Islanders have an increased risk for type 2 diabetes*.

*According to the most recent estimates from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), 23.6 million people – over 7 % of the population – have diabetes.*

# Reading

## DIABETES

**Diabetes mellitus** is the most common endocrine disorder that is marked by elevated blood glucose (commonly referred to as blood sugar). A large portion of the food that we eat is **converted** by the body into glucose. The blood delivers glucose throughout the body, but the hormone insulin is needed in order for it to be transported into most cells. Insulin comes from the **pancreas**. If the pancreas does not make sufficient insulin or cells are **resistant** to its activity of promoting glucose uptake, the blood glucose level becomes elevated.

The WHO recognizes three main forms of diabetes: *type 1*, *type 2* and *gestational diabetes* (or *type 3*, occurring during pregnancy). Although these share signs and symptoms, they have different causes and population distributions.

### Type I diabetes

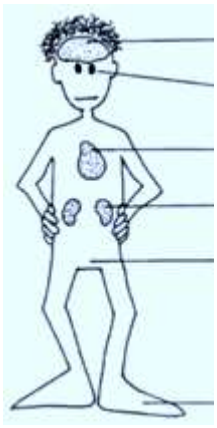
Type I diabetes, or **insulin-dependent** diabetes, represents approximately 5-10% of diabetic patients. It usually has a rapid **onset** and most frequently **manifest** in children and adolescents. It occurs when the body's immune system destroys the cells in the body—called pancreatic beta cells—that produce insulin which regulates blood glucose levels (BGL).

The glucose level in the blood elevates and excess glucose is lost in the urine, causing weakness, weight loss, thirst and hunger. The treatment for type I diabetes is insulin replacement.

### Type II diabetes

Type II diabetes, or **insulin-independent** diabetes is found in some 120 million adults (over 90% of people). In type 2 diabetes the pancreas produces insulin but the cells of the body become resistant or the amount of insulin produced is not enough. Glucose increases in the blood stream (**hyperglycemia**) and the cells of the body are unable to function properly.

Some type II diabetics can be effectively treated with diet alone, but many require oral medications. Historically, this has been thought of as maturity onset diabetes because it tends to occur after age 50, but there has been a dramatic increase in the number of adolescents with the disease. This is due to increased obesity and decreased physical activity in this age group.




### Gestational Diabetes

This type of diabetes refers to glucose intolerance during pregnancy. This imbalance usually appears in women with a family history of diabetes. Women must be monitored during pregnancy for signs of diabetes mellitus, especially those with **predisposing** factors, because this condition can cause complications for both the mother and the fetus.

### Complications of Diabetes

Diabetic patients are **prone** to cardiovascular, neurologic, and vision problems, infections, and, sometimes, renal failure.

**Retinopathy** is caused by damage to the small blood vessels of the **retina**. These blood vessels begin to leak fluid into the retina, which leads to **blurred vision**. Kidney damage is caused by destruction of the small vessels in the nephrons allowing protein to flow into the urine. As this **nephropathy** continues the function of the kidney **declines** and leads to **kidney failure** and end-stage kidney disease. Circulatory problems and nerve damage are caused by a **hardening** of the arteries. This causes loss of **sensation**, risk of **ulcers**. If untreated, infected foot and leg ulcers can spread to the bone and may require amputation. Burning, pain or tingling sensations in the hands, legs and feet are also common.

# Vocabulary Practice

**1. Объясните значение выделенных слов из текста на предыдущей странице.**

**2. Соотнесите термины с их определениями.**

| | |
|---|---|
| **1.** pancreas | **a.** a person who suffers from diabetes |
| **2.** diabetes | **b.** a hormone produced in the cells of pancreas |
| **3.** hypoglycaemia | **c.** an amount of glucose in the blood |
| **4.** insulin | **d.** a low level of sugar in the blood |
| **5.** blood sugar level | **e.** the organ that produces insulin, which regulates blood sugar |
| **6.** diabetic | **f.** a disease characterized by high levels of sugar in the blood |

**3. Подберите синонимы к следующим словам.**

| | |
|---|---|
| to diminish | |
| to demonstrate | |
| feeling | |
| beginning | |
| becoming firm, strong | |
| to change from one form to another | |
| not clear (in shape, outline) | |

**4. Заполните пробелы словами из таблицы.**

| |
|---|
| accumulated, addition, associated, reliable, consumption, elevated, levels, prevented, preventive, protective |

**Prevention of Diabetes**

As little is known on the exact mechanism by which type 1 diabetes develops, there are no _____(**1**) measures available for that form of diabetes. Some studies have attributed a _____(**2**) effect of breastfeeding on the development of type 1 diabetes.

Type 2 diabetes can be _____(**3**) in many cases by making changes in diet and increasing physical activity. Some studies have shown delayed progression to diabetes through the use of metformin or valsartan. Breastfeeding might also be correlated with the prevention of type 2 of the disease in mothers.

Although there are many claims of nutritional cures, there is no _____ (**4**) proof of their effectiveness. In _____ (**5**), despite claims by some that vaccinations may cause diabetes, there are no studies proving any such connection.

Individuals with _____ (**6**) levels of persistent organic pollutants (DDT, dioxins, chlordan) in their body are 38 times more likely to have diabetes than individuals with low _____ (**7**) of these pollutants, according to a Korean study. Among study participants, obesity was _____ (**8**) with diabetes only in people who was tested high for these pollutants. These pollutants are _____ (**9**) in animal fats, so minimizing _____ (**10**) of animal fats may reduce the risk of diabetes.

**5. Тест: Выберите правильный ответ, чтобы закончить следующие предложения.**

1. Insulin is used to
   **a** break down glucose
   **b** change food into glucose
   **c** make glucose
   **d** transport glucose into cells

2. Insulin is made by the following organ
   **a** liver
   **b** brain
   **c** pancreas
   **d** heart

3. When blood sugar levels are elevated, glucose is lost through the
   **a** urine
   **b** blood
   **c** pancreas
   **d** liver

4. The treatment for type I diabetes is
   **a** controlling diet
   **b** drinking lots of water
   **c** increased exercise
   **d** insulin replacement

5. The treatment for type II diabetes is
   **a** controlling diet
   **b** drinking lots of water
   **c** increased exercise
   **d** insulin replacement

6. Type II diabetes is increasing in adolescents because of
   **a** increased obesity
   **b** decreased physical activity
   **c** both of these
   **d** none of these

# Language Development

**1. Просмотрите текст о диабете и ответьте на вопросы.**

1. What kind of disease is diabetes mellitus?

_____

_____

2. What helps glucose to reach cells?

_____

3. In what case does blood sugar level become elevated?

_____

4. What types of diabetes are there?

_____

5. What are different types of diabetes characterized by?

_____

6. What groups of people does type II diabetes usually affect?

_____

7. What is the treatment for diabetes?

_____

_____

8. What are complications of diabetes?

_____

_____

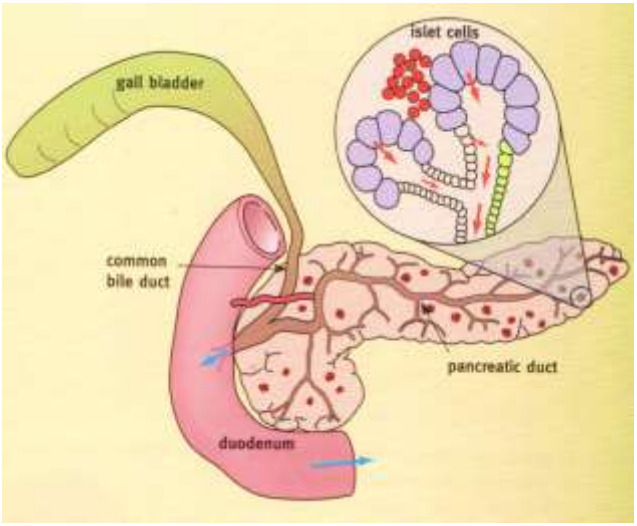
**2. Прочитайте информацию о пациенте с диабетом и ответьте на вопрос «Какие простые, но важные изменения в своем образе жизни должен предпринять м-р Виьямс?»**

*Mr Williams has come to the Diabetic Clinic to discuss lifestyle and nutritional changes.*

Mr Harry Williams, a 68-year-old insulin-dependent diabetic, has lived on his own since his wife died five years ago. He is overweight and rarely does any exercise. He used to like walking along the beach with his wife but hardly ever goes to the beach now. He has become very careless about eating regular meals and, as a result, his blood sugar levels are not stable. He used to have one or two glasses of beer every night but recently his intake has increased. He also smokes about two packets of cigarettes a week.

**3.a. Прочитайте информационный лист и ответьте на следующие вопросы.**

1. What is the exocrine function of the pancreas?
2. What is the endocrine role of the pancreas in diabetes management?
3. What does insulin do to blood sugar levels?
4. What hormone has the opposite function to insulin?




**The Pancreas**

The pancreas is a small L-shaped organ which sits against the duodenum behind the stomach. It is quite small, at around 15 cm long.

The pancreatic duct runs along the middle of the pancreas and empties into the duodenum. It supplies pancreatic enzymes, also called pancreatic juices, which aid in the digestion process. This is described as the exocrine function of the pancreas, *exo* meaning “out of”. Pancreatic juices flow out of the pancreas through the pancreatic duct. The pancreatic duct is joined by the common bile duct before emptying into the duodenum. The pancreas also has an endocrine function, *endo* meaning “within”. This is the release of hormone within the bloodstream. There are four main types of hormone produced in the hormone-producing cells of the pancreas – the islets of Langerhans (islet cells). One of the four cell types – beta cells – produce insulin.

The function of insulin is to lower the blood sugar level. Beta cells make up almost eighty per cent of all islet cells. Alpha cells make up almost twenty per cent, and these release glucagon, which raises the level of glucose

in the blood. This is the opposite function to insulin. The level of glucose in the blood is called either blood sugar level (BSL) or blood glucose level (BGL). Insulin stimulates cells in the body to use or store the glucose produced from the metabolism of carbohydrates in food. Glucose is used in the body as an energy source.

**b. Заполните пробелы в следующей части информационного листа, используя слова из таблицы. Затем прочитайте диалог между Надией, специалистом по диабету, и Бет, у которой только что выявлен диабет (упр. 4, стр. 32), и проверьте ваши ответы.**

| |
|---|
| pumps, oral, injections, normalise, fuel, fat, regulates, inhalers, 90%, children, beta, liver, glucose, ~~insulin~~ |

The normal pancreas produces a hormone called insulin (**1**) in the beta cells. Insulin _____ (**2**)
blood sugar levels (BSL) by moving _____ (**3**) from the blood into the muscle, _____ (**4**)
and _____ (**5**) cells. This means that glucose can be used as _____ (**6**) for the body.
The diabetic pancreas may not produce any insulin at all in the _____ (**7**) cells, or produce too little insulin to _____ (**8**) blood sugar levels. If no insulin is produced this is called Type 1 diabetes and is often the cause of diabetes in _____ (**9**). Daily or twice-daily _____ (**10**) of insulin are needed by people with Type 1 diabetes. When the pancreas produces too little insulin, this is called Type 2 diabetes and makes up about _____ (**11**) of all cases of diabetes. This type of diabetes may be treated with an _____ (**12**) hypoglycaemic medication and sometimes also with insulin injections. Two new devices, insulin _____ (**13**) and insulin _____ (**14**), offer great improvements in lifestyle of all diabetics.

**c. Работа в парах. Объясните роль поджелудочной железы пациенту, у которого только что диагностировали диабет. Студент А выступает в роли медсестры, студент Б – в роли пациента. Поменяйтесь ролями и воспроизведите диалог еще раз.**

# Grammar Point

## Conditional Sentences: Type II and III

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/if.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/if_clauses/type_2_mix3.htm

https://www.englisch-hilfen.de/en/exercises/if_clauses/type_3_mix3.htm

https://www.englisch-hilfen.de/en/exercises/if_clauses/multiple_choice3.htm

**3. Проект.**

**Read and listen to the full version of Erica's story at:** http://kidshealth.org/teen/diseases_conditions/personal_stories/diabetes_erika

**What are the main problems (physical, emotional, psychological, financial) diabetics are facing in the USA?**

**Find out how people with diabetes cope with the disease in Russia. Do they have similar problems? What seems to be the hardest in living with diabetes**

# Checklist

Оцените, чему вы научились в этом уроке. Отметьте (✓) утверждения, которые справедливы для вас.

- I can talk about the main factors causing diabetes
- I can describe different types of diabetes and their treatment
- I can use conditional sentences of Type II and III

# Key Words

blurred vision /blɯd `vɪʒqn/
convert /kqn`vɯt/ *v*
decline /dɪ`klaɪn/ *v*
diabetes mellitus /ˌdaɪq`bɪtɪz/
type I diabetes /taɪpwʌn ˌdaɪq`bɪtɪz/
type II diabetes /taɪptu ˌdaɪq`bɪtɪz/
insulin-dependent diabetes /`ɪnsjulɪndɪ`pɛndqnt ˌdaɪq`bɪtɪz/
insulin-independent diabetes /`ɪnsjulɪnɪndɪ`pɛndqnt ˌdaɪq`bɪtɪz/
harden /`hʀdqn/ *v*
hyperglycaemia /ˌhaɪpqglaɪ`smɪq/ *n*
kidney failure /`kɪdnɪ `fɛlɪjq/
manifest /`mxnɪfqst/ *v*
nephropathy /ˌnqf`rɔpqtɪ/ *n*
onset /`ɔnsqt/ *n, v*
option /`ɔpʃqn/ *n*
predispose /ˌprɪdɪ`spquz/ *v*
prone /prqun/ *adj*
resistant /rɪ`zɪstqnt/ *n*
retina /`rɛtɪnq/ *n*
retinopathy /ˌrɛtɪ`nɔpqtɪ/ *n*
sensation /sɛn`sɛɪʃqn/ *n*
ulcer /`ʌlsq/ *n*

Просмотрите еще раз материал урока. Запишите другие слова и выражения, которые могут оказаться для вас полезными, и выучите их.

# UNIT XIII. THE NERVOUS DISEASES IN CHILDREN_

**In this unit**

- describing the structure and physiology of the nervous system
- talking about the organs of the nervous system and their functions
- *the Infinitive Constructions*

## Lead-in

**1. Interesting Facts**

- The nervous system can transmit impulses as fast as 100 meters per second.
- Potassium and sodium ions are vital to the proper functioning of the nervous system.
- Neurons are the largest cells in the human body.
- Neurons do not undergo mitosis.
- There are about 13,500,00 neurons in the human spinal cord.
- There are 100 billion neurons in your brain alone.
- If we lined up all the neurons in our body it would be around 600 miles long.
- A new born baby loses about half of their nerve cells before they are born.
- Only four per cent of the brain's cells work while the remaining cells are kept in reserve.

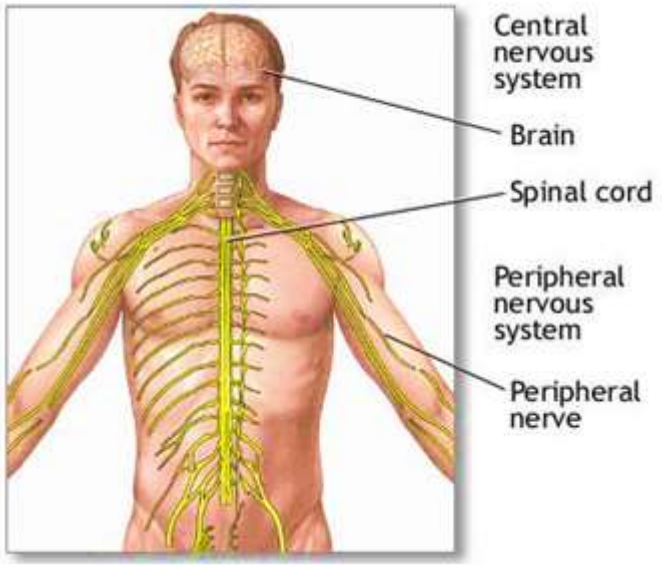
**2. Answer the following questions:**

- What diseases of the nervous system have you heard about?
- If someone in the street has an epileptic fit, what would you do first?
- If a patient is violent, how should you react?
- If a patient is suffering shock, what should you do?
- If someone is unconscious and you suspect a broken leg, what would be the first thing to do?
- If a very ill patient wants to leave the hospital, what should you do?

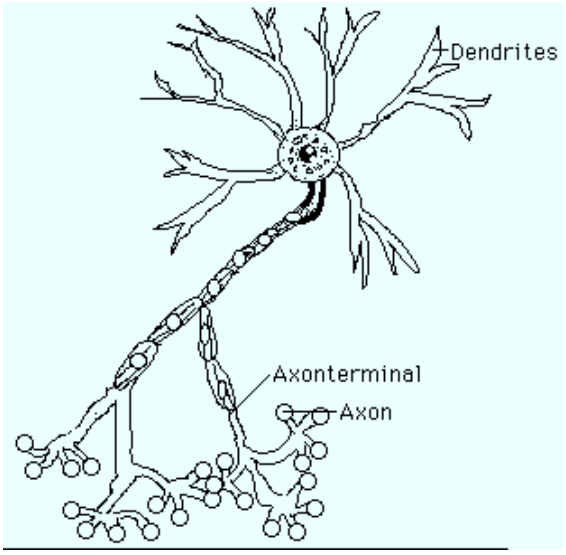
**3. Read the text "The Nervous System", then choose from the list the statements A-F which best summarise each part (1-5) of the text. There is one extra statement which you do not need to use. There is an example at the beginning (1).**

A. Functions of the nervous system.
B. How the nervous system works.
C. The neuron.
D. Types of neurological problems in children.
E. The structure of the nervous system.

**The Nervous System**




**The Neuron**



*Mental illness is far more common than cancer, diabetes, heart attack or arthritis. **One person in three** suffers some sort of mental illness at some time in their life.*

# Reading

## The Nervous Diseases in Children

**1. A. Functions of the Nervous System**

As the most complex system, the nervous system serves as the body control and communication centre which detects, interprets, and **responds** to changes in internal and external conditions. It integrates countless bits of information and generates appropriate reactions by sending electrochemical impulses through nerves to such organs as muscles and glands.

**2.**

The human body's nervous system is divided into two parts:

- the **central nervous system** (CNS), consisting of the brain and spinal cord. Its main job is to get the information from the body and send out instructions.
- the **peripheral nervous system** (PNS), consisting of the **cranial nerves** (the brain's 12 pairs of nerves) and the **spinal nerves** (31 pairs of nerves associated with the spinal cord).

The PNS is subdivided into the **somatic nervous system**, which controls skeletal muscles, and the **autonomic nervous system** (ANS), which controls the "automatic" or **involuntary** movements of the body's smooth muscle, cardiac muscle, and glands.

In addition to the brain and spinal cord, principal organs of the nervous system include the

- eyes
- ears
- sensory organs of taste
- sensory organs of smell
- sensory receptors located in the skin, joints, muscles, and other parts of the body

**3.**

The basic functioning of the nervous system depends a lot on tiny cells called **neurons**. The neuron, or nerve cell, is the basic functional unit of the nervous system. The brain has billions of them, and they have many specialized jobs.

A neuron that transmits impulses toward the CNS is a **sensory** neuron; a neuron that transmits impulses away from the CNS is a **motor** neuron. For example, sensory neurons take information from the eyes, ears, nose, tongue, and skin to the brain. Motor neurons carry messages away from the brain and back to the rest of the body.

Each neuron has two types of fibres extending from the cell body: the **dendrite**, which carries impulses toward the cell body, and the **axon**, which carries impulses away from the cell body. Some axons are covered with **myelin**, a whitish, fatty material that protects the axon and speeds electric conduction. These axons make up the **white matter** of the nervous system. The axons which are not covered with myelin make up the **grey matter** of the nervous system.

**4.**

The nervous system is **vulnerable** to various disorders. There are different types of neurological conditions that affect the central and peripheral nervous system. These various types of neurological disorders can occur due to **congenital** problems (by birth), **heredity**, trauma, **exposure** to toxic chemicals, tumors and infections.

Most of the common neurological disorders include development **delays**, severe headaches, **seizures**, abnormal increase in head size, muscle **rigidity**, lack of coordination, etc.

Traumatic brain injuries can occur due to motor accident, near drowning accident, brain injury due to fall, etc.

Certain neurological diseases occur due to infections like Ebola, malaria, encephalitis and meningitis.

Genetics too plays an important role in development of neurological symptoms in children. These include hydrocephalus, anencephaly, **autism**, etc.

If the mother was an alcoholic or drug addict, it may cause development of congenital neurological diseases.

# Vocabulary Practice

**1. Look at the words in bold type on p. 39 and explain them.**

**2. Finish the following sentences using the active vocabulary of the unit.**

1. The basic functional unit of the nervous system is _____.
2. Both the brain and the spinal cord are protected by _____: the brain by the bones of the _____, and the spinal cord by a set of ring-shaped bones called _____.
3. Nerve fibre that carries impulses toward the cell body is _____.
4. Nerve fibre that carries impulses away from the cell body is _____.
5. Fatty material that covers some axons are _____.
6. The scientific name for a nerve cell is _____ _____ .
7. The study of the nervous system is _____ _____ .
8. Any disease of the nervous system is _____ _____.
9. A neuron that transmits impulses toward the CNS is _____.
10. A neuron that transmits impulses away from the CNS is _____.

**3. Make adjectives from the following nouns.**

| Noun | Adjective |
|---|---|
| spine | |
| nerve | |
| sense | |
| structure | |
| neuron | |
| muscle | |
| vessel | |
| function | |

**Make up word combinations with these adjectives.**

*e.g. muscular weakness*

_____
_____
_____
_____

**4. Fill in the gaps with the words from the box.**

| storing, nerves, message, react, pain, relays, controls, neurological, bundle, peripheral, spinal cord, |
|---|

If you think of the brain as a central computer that _____**(1)** all bodily functions, then the nervous system is like a network that _____ _____ **(2)** messages back and forth from the brain to different parts of the body. It does this via the _____ **(3),** which runs from the brain down through the back and contains threadlike _____**(4)** that branch out to every organ and body part. When a _____**(5)** comes into the brain from anywhere in the body, the brain tells the body how to _____**(6).** For example, if you accidentally touch a hot stove, the nerves in your skin shoot a message of _____ **(7)** to your brain. The brain then sends a message back telling the muscles in your hand to pull away. Luckily, this _____**(8)** relay race takes a lot less time than it just took to read about it.

Considering everything it does, the human brain is incredibly compact, weighing just 3 pounds. Its many folds and grooves, though, provide it with the additional surface area necessary for _____**(9)** all of the body's important information.

The spinal cord, on the other hand, is a long _____**(10)** of nerve tissue about 18 inches long and ¾ inch thick. It extends from the lower part of the brain down through spine. Along the way, various nerves branch out to the entire body. These make up the _____**(11)** nervous system.

**5. Write antonyms to the following words.**

| | |
|---|---|
| peripheral | |
| to relay a message | |
| to branch out | |
| compact | |
| luckily | |
| lower part | |
| vulnerable | |
| voluntary | |

# Language Development

**1. Multiple Choice Quiz**

**1. Which of the following are the parts of neuron?**

**a** brain, spinal cord, and vertebral column
**b** dendrite, axon, and cell body
**c** sensory and motor
**d** cortex, medulla and sheath
**e** sympathetic and parasympathetic

**2.** A dendrite conducts nerve impulses _____ the cell body.

**a** away from
**b** toward
**c** both toward and away from
**d** around, bypassing
**e** only inside

**3.** An axon conducts nerve impulses _____ the cell body.

**a** away from
**b** toward
**c** both toward and away from
**d** around, bypassing
**e** only inside

**4.** Which of the following is/are *type(s)* of neurons?

**a** sensory
**b** motor
**c** interneurons
**d** all of the above

**5.** What are the main divisions of the nervous system?

**a** the sensory system and the motor system
**b** the peripheral nervous system and central nervous system
**c** the dendritic and the axonal systems
**d** the sympathetic and parasympathetic systems

**6.** The peripheral nervous system includes the nerves, which are neurons with cell bodies that occur in the

**a** sympathetic nervous system
**b** brain, spinal cord, or in ganglia
**c** motor system
**d** autonomic system

**7.** The PNS nerves are part of either the somatic system or the

**a** motor system
**b** central nervous system
**c** sympathetic system
**d** parasympathetic system
**e** autonomic system

**8.** The *somatic system* contains nerves that control

**a** skeletal muscles
**b** internal organs, joints, and glands
**c** skeletal muscles, skin, and glands
**d** smooth muscles, cardiac muscles and glands

**9.** How many pairs of *cranial nerves* do humans have?

**a** 4
**b** 12
**c** 16
**d** 21
**e** 31

**10**. Humans have *12 pairs of spinal* nerves.

**a** True
**b** False

**11**. The central nervous system consists of the

**a** combination of the sympathetic and parasympathetic nervous systems
**b** brain and spinal cord
**c** combined sensory and motor systems
**d** cranial and spinal nerves

**2. Look through the text about the nervous system and answer the following questions.**

1. What is the main function of the nervous system?

_____
_____

2. What is the structure of the nervous system?

_____

3. What is the role of the central and peripheral nervous system?

_____
_____

4. What is the fundamental unit of the nervous system?

_____

5. What types of neurons are there? How do they differ?

_____
_____

6. What are the causes of nervous diseases in children?

_____
_____

7. What are the most common neurological disorders?

_____
_____

8. Give examples of different types of mental disorders.

_____

# Grammar Point

## The Infinitive Constructions

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar_list/gerund_infinitiv.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/infinitive1/index.php

https://www.perfect-english-grammar.com/infinitives-of-purpose-exercise-1.html

https://www.ego4u.com/en/cram-up/grammar/infinitive-gerund/exercises?11

**3. Проект.**

Many talented painters, writers, actors, *etc.* suffer from mental illnesses. Find out how mental illness affected their lives.

# Checklist

Assess your progress in this unit. Tick (✓) the statements that are true.

- I can talk about the structure and physiology of the nervous system
- I can describe the organs of the nervous system and their functions
- I can characterize the most common neurological disorders in children
- I can use the Infinitive Constructions

# Key Words

autism /ˈɒtɪzəm/ *n*
autonomic nervous system /ˌɔːtəˈnɒmɪk ˈnɜːvəs ˈsɪstəm/
axon /ˈæksɒn/ *n*
brain /breɪn/ *n*
central nervous system /ˈsentrəl ˈnɜːvəs ˈsɪstəm/
congenital /kənˈdʒenɪtəl/ *adj*
cranial nerve /ˈkreɪnɪəlˈnɜːv/
degeneration /dɪˌdʒenəˈreɪʃən/ *n*
delay /dɪˈleɪ/ *n, v*
dendrite /ˈdendraɪt/ *n*
exposure /ɪkˈspəʊʒə/ *n*
grey matter /ˌgreɪ ˈmætə/
heredity /hɪˈredɪtɪ/ *n*
myelin /ˈmaɪəlɪn/ *n*
neuron /ˈnjʊərɒn/ *n*
peripheral /pəˈrɪfərəl/ *adj*
rigidity /rɪˈdʒɪdɪtɪ/ *n*
seizure /ˈsiːʒə/ *n*
sensory /ˈsensərɪ/ *adj*
somatic nervous system /səˈmætɪk ˈnɜːvəs ˈsɪstəm/
spinal cord /ˈspaɪnəlˌkɔːd/
spinal nerve /ˈspaɪnəlˈnɜːv/
voluntary /ˈvɒləntərɪ/*adj*
vulnerable /ˈvʌlnərəbl/*adj*
white matter /ˌwaɪt ˈmætə/

Look back through this unit. Find other words and expressions that you think are useful and worth learning.

# UNIT XIV. EYE DISEASES IN CHILDREN

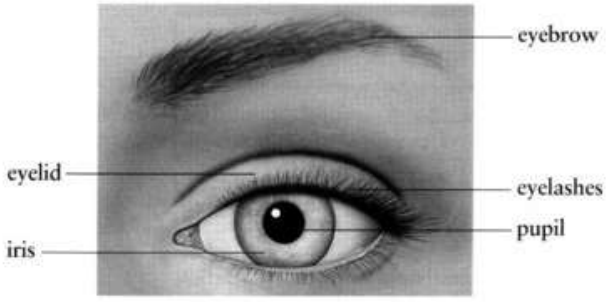
**In this unit**

- talking about the causes of common eye diseases
- describing the symptoms and treatment of common eye diseases in children
- the participle and the participle constructions

## Lead-in

**1. Answer the following questions.**

- How good is your eyesight?
- When did you last have an eye test?
- What kind of tests was used? How did you do?
- If you have a problem, when did you first notice it?
- Does anyone in your family have vision problems? What kind?
- How do you call a physician who deals with eye diseases?
- Can you name any famous

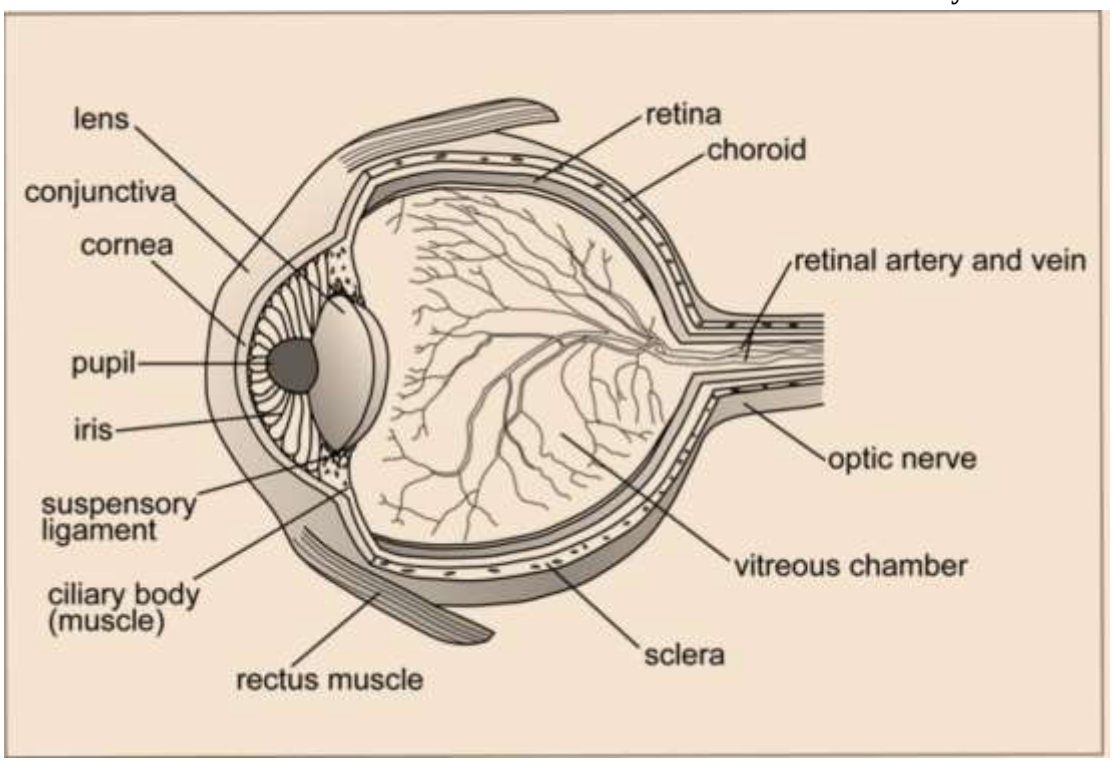



ophthalmologists in our country?

- For you, is wearing glasses positive or negative?
- What is the price range for glasses with lenses in your country?
- Imagine there were no glasses or contact lenses. How many of the people who you work with every day would not be able to work?

**3. Read the text "Eye Diseases", then be ready to discuss it.**

**The anatomical elements of the eye**



*The iris of the eye is named for Iris, the mythological Greek goddess of the rainbow and messenger of the gods.*

*According to legend, the Chinese invented and used eye-glasses as early as 500 BC. Marco Polo, who visited China in about 1275, reported seeing many Chinese wearing eyeglasses.*

## Reading

# Eye Diseases in Children

### The Structure of the Eye

The wall of the **eye** is composed of three layers. The *outermost* is a protective layer, the **sclera**, which extends over the front of the eye as the transparent **cornea**. The *middle* layer is a vascular one, which consists of the **choroid**, the **ciliary body**, and the **iris**. The iris, by which we assign the colour of the eye, controls the size of the **pupil**, thus regulating the amount of light that enters the eye. The ciliary body contains a muscle that controls the shape of the **lens** to allow for near and far vision, a process known as **accommodation**.

The **retina** is the *innermost* layer and the actual visual receptor. It consists of specialized cells, which respond to light. Nerve impulses received from photoreceptors are transmitted to the brain by way of the optic nerve. Proper vision requires the **refraction** (bending) of light rays as they pass through the structures of the eye to focus on a specific point on the retina. In the retina, near the optic nerve, there is a tiny depression – it is the point of greatest **visual acuity** . It is surrounded by a yellowish spot (the **macula**).

The eye is protected by a bony socket or **orbit**, the **eyelids**, **eyebrows**, **eyelashes**, and tears. The **lacrimal** (tear) **glands** constantly bathe the eyes with a lubricating fluid that drains into the nose. There is also a protective **conjunctiva**, a thin membrane that lines the eyelids and covers the anterior portion of the eye. The eyeball is filled with a clear jelly called **vitreous humour.**

### Vision Problems

#### Errors of Refraction

Many people have vision problems because their eyes do not focus perfectly.

**Nearsightedness** is the condition when the retina is too far from the front of the eye. To focus clearly, an object must be brought closer to the eye. This condition is called **myopia.** Myopia can affect both children and adults. The condition affects about 25 percent of Americans. Myopia is often diagnosed in children between 8 and 12 years of age and may worsen during the teen years. People whose parents have myopia may be more likely to get the condition.

The opposite condition is **hyperopia**, or **farsightedness**, in which the retina is too close from the front of the eye, retina. Nearby objects appear blurred. Hyperopia tends to be more common in people over the age of 40, though it can affect all ages. It is possible for children to be born with hyperopia. In many cases the child's sight improves as they get older, but regular eye tests will be recommended because, if hyperopia is not treated in children, it can cause a **squint** (known as **strabismus**).

**Strabismus** is a condition in which the eyes do not **point** in the same direction. It occurs in 2-5% of all children. About half are born with the condition, which causes one or both eyes to turn inward ("crossed eyes"), outward ("wall eyes"), upward or downward. Strabismus sometimes runs in families.

An **astigmatism** is an irregularity in the curve of the cornea or lens that distorts light entering the eye and blurs vision. Glasses can compensate for most of these impairments.

#### Infection

Several microorganisms can cause **conjunctivitis** (inflammation of the conjunctiva). This is a highly infectious disease commonly called pinkeye. The bacterium *Chlamydia trachomatis* causes inflammation that results in **scarring**. This disease is easily cured with sulpha drugs and antibiotics.

#### Disorders of the Retina

Retinal disorders are age-related, i.e. they develop in people after 40. They include:

- **Retinal detachment**, separation of the retina from the underlying layer of the eye (the choroid), commonly repaired with laser surgery;
- **Cataract**, **opacity** (cloudiness) of the lens. To prevent blindness, the cloudy lens must be removed surgically.
- **Glaucoma**,an abnormal increase in pressure within the eyeball. Glaucoma is usually treated with medication to reduce pressure in the eye.

# Vocabulary Practice

**1. Look at the words in bold type on p. 47 and explain them.**

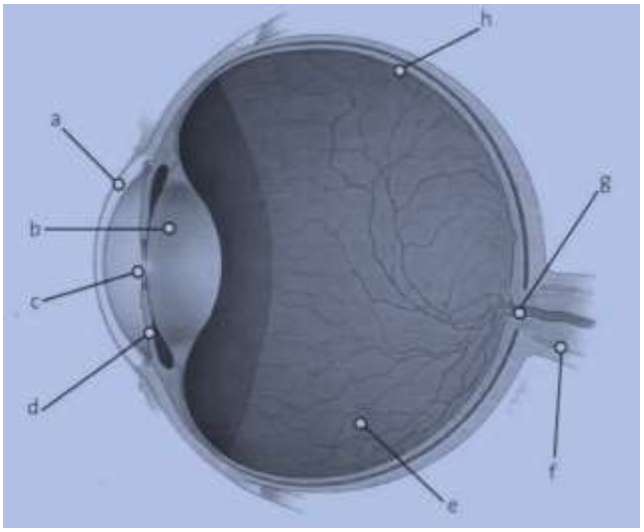
**2. Match the medical terms with their meanings.**

| | |
|---|---|
| **1.** accomodation | **a.** sharpness of vision, especially as tested with a Snellen chart. |
| **2.** refraction | **b.** a condition of elevated fluid pressure within the eyeball |
| **3.** visual acuity | **c.** an abnormality of the eye characterized by opacity of the lens |
| **4.** glaucoma | **d.** adjustment of the eye for seeing objects at various distances. |
| **5.** cataract | **e.** ability of the eye to bend light so that an image is focused on the retina. |

**3. Give synonyms to the following words.**

| | |
|---|---|
| eyes turning inward | |
| eyes turning outward | |
| myopia | |
| hyperopia | |
| strabismus | |
| opacity of the lens | |
| lacrimal glands | |
| sharpness of vision | |

**3. Label the parts of the eye using the words in the list.**




cornea ___ lens ___ optic nerve ___
iris ___ macula ___ pupil ___
retina ___ vitreous humour ___

**4. Complete this description using the words and phrases below.**

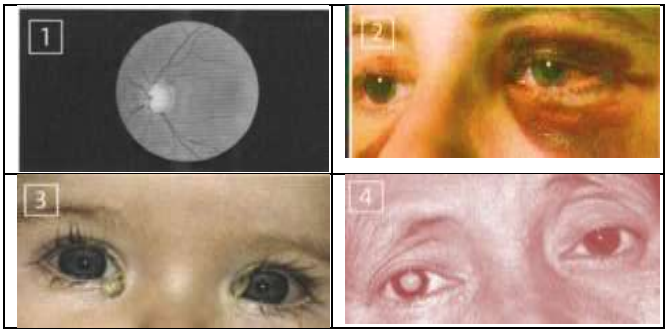
| | |
|---|---|
| point | electrical signals |
| image | light waves |
| clear gel | sensitive part |
| black circle | visual image |
| clear dome | |

**How the Eye Works**

Actually, we don't see with our eyes, we see with our brains. When you look at things, _____[1] from them enter the eye through the cornea, which is a _____[2] at the front of the eye. The light then goes through the pupil, the _____[3] in the centre of the coloured iris. The light then bends to a _____[4] behind the lens. There, the_____[5] is reversed and upside down. The light travels on through a_____[6] called the vitreous humour and then to a focus on the retina. In the centre of the retina is the macula, which is a very _____[7] of the retina. It is used when we read or stare at something. The retina converts the light to _____[8] which travel along the optic nerve to the brain, which turns them back to a _____[9].

**5. a. Match each eye condition with a picture.**

| | |
|---|---|
| **a** cataract | **c** glaucoma |
| **b** conjunctivitis | **d** eye trauma |




**b. Match each of these symptoms with one or more of the eye conditions a-d above.**

1. a bloodshot eye
2. haloes around lights
3. blurred vision
4. bruising of the eyelid
5. bulging eyes
6. clouding of the lens
7. discharge
8. double vision
9. a dull pupil
10. irritation
11. sensitivity to light
12. swollen eyelid
13. vision loss
14. watering

# Language Development

**1. a. Read the text. Match these titles with paragraphs A-F. One title is not needed.**

1. The social effects of glasses _____
2. How glasses are made _____
3. Sight in the developing world _____
4. The invention of glasses _____
5. How glasses work _____
6. An important invention _____
7. The limited life of eyes _____

## The Importance of Seeing Clearly

**A.** If you had to make a list of ten inventions that have changed the world, glasses would be on it.

**B.** Most people's eyes can work efficiently for only about 35 years, and after that they may need reading glasses. 800 years ago there was no such thing as correcting sight and early in life almost everyone became disabled by failing eyesight.

**C.** Glasses were invented in the fourteenth century and very quickly spread throughout the world. Their invention was vital to the creative and intellectual progress of the Renaissance – a period of rapid development in mathematics, science, commerce, medicine and art.

**D.** Spectacle lenses correct focus, and can be used to correct other problems too, such as aberrations (seeing ghost images, haloes, waves, or rainbows) and squints (strabismus), when the two eyes do not point in the same direction. However, their most common use is to correct long-sightedness (hyperopia) -- where you cannot focus on near objects, short-sightedness (myopia) - where you cannot focus on distant objects, and the loss, through ageing, of the eye's ability to change focus (presbyopia).

**E.** The invention of glasses freed people from the effects of ageing. At the point in their lives when their knowledge and skills were at their highest level, people could continue to read, do accounts, write, and do small-scale, detailed work. Glasses have effectively doubled the length of time one can expect to live a productive life.

**F.** The link between glasses and poverty can be seen in developing countries today. The World Health Organisation says that 28 million people in developing countries, where a pair of glasses can cost several months' salary are blind from treatable conditions. Educated people like engineers and teachers have to retire early, and millions never learn to read, simply because they cannot see.

**b. Decide whether these statements are true (T) or false (F).**

1. Most people of 45 need reading glasses.
2. Scientific progress in the Renaissance led to the invention of glasses.
3. Haloes are an example of an aberration.
4. A squint is a focusing problem.
5. People with hyperopia need glasses for reading.
6. Glasses doubled the hours that people could work in a day.
7. Cheaper glasses would help the professionals in the developing countries work longer.

**2. Look through the text about the eye diseases and answer the following questions.**

1. What is the wall of the eye composed of?

_____
_____

2. What determines the colour of the eye?

_____

3. What does the middle layer of the eye composed of?

_____

4. What is the inner layer of the eye responsible for?

_____

5. What is the eye protected by?

_____
_____

6. What are the most common errors of refraction? Name and characterize them.

_____

7.What kind of disease is conjunctivitis?

_____
_____

8. What age-related conditions are there? What is their treatment?

_____

# Grammar in Use

## The Participle and the Participle Constructions (Clauses)

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar/partizipien.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/structures/participles_sentences.htm

https://www.englisch-hilfen.de/en/exercises/structures/participles_phrases.htm

https://www.englisch-hilfen.de/en/exercises/structures/past_participle.htm

https://www.englisch-hilfen.de/en/exercises/structures/present_participle.htm

**3. Проект**

**Research one of the following eye conditions and make a short presentation to describe the signs and symptoms of the condition. Explain what causes it and how it can be treated.**

| | |
|---|---|
| blepharitis | iritis |
| detached retina | keratoconus |
| dry eyes | macular degeneration |
| ectropion | |

# Checklist

Assess your progress in this unit. Tick (✓) the statements that are true.

- I can talk about the causes of the common eye diseases in children
- I can describe the symptoms and treatment of common eye diseases
- I can use all forms of participles and participle constructions

# Key Words

accommodation /qkɔmq`dɛlʃqn/*n*
astigmatism /q`stlgmqtlzm/ *n*
cataract /`kxtqrxkt/ *n*
choroid /`kɬrɔld/ *n*
ciliary body /`slllqrl `bɔdl/
conjunctiva /ˌkɔnɢʔnk`talvq/ *n*
conjunctivitis /kqn,ɢʔnktl`valtls/ *n*
constricted /kqn`strlktld/*adj*
cornea /`kɬnlq/ *n*
dilated /dal`lɛltld/*adj*
eyelash /`allxʃ/ *n*
eyelid /`allld/ *n*
glaucoma /gll`kqumq/ *n*
hyperopia /ˌhalpqr`quplq/ =farsightedness /`fʀsaltldnqs/ *n*
iris /`alrls/ *n*
lacrimal gland /`lxkrlmqlglxnd/
lens /lɛnz/ *n*
macula /`mxkjulq/ *n*
myopia /mal`quplq/ = nearsightedness /`nlqsaltldnqs/ *n*
opacity /qu`pxsltl/ *n*
pupil /`pjʰlpll/ *n*
refraction /rl`frxkʃqn/ *n*
retina /`rɛtlnq/ *n*
retinal detachment /`rɛtlnql dl`txcmqnt/
scarring /`skʀrlɴ/ *n*
sclera /`skllqrq/ *n*
squint /skwlnt/ = strabismus /strq`blzmqs/ *n*
visual acuity /`vlʒjuqlq`kjʰlltl/
vitreous humour /`vltrlqs `hjʰlmq/ *v*

Look back through this unit. Find other words and expressions that you think are useful and worth learning.

# UNIT XV. EAR DISEASES IN CHILDREN

**In this unit**

- talking about the causes of common ear diseases
- describing the symptoms and treatment of common ear diseases
- *verbs followed* by *–"ing" form* (*gerund or participle*)

## Lead-in

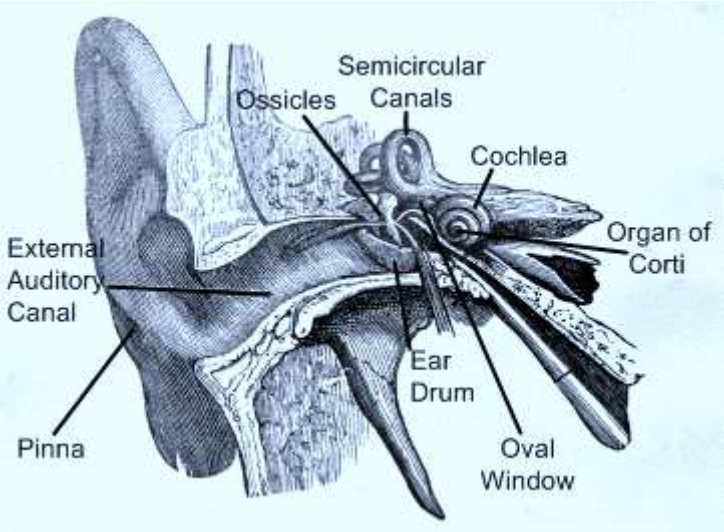
**1. Interesting Facts**

- Your ear drum is less than 17.5 mm in diameter
- Your ear never stops working, even when you're asleep. The ear continues to hear sounds, but your brain just ignores incoming sounds.
- Your ear does more than just let you hear—it also gives you a sense of balance. Maybe you've noticed feeling dizzy if you've had an ear infection.
- The three bones in your ear are the smallest bones in your body, and all three could fit together on a penny.
- **American Sign Language** (ASL) is a complete, complex language that employs signs made by moving the hands, facial expressions and postures of the body. It is the primary language of many Americans who are deaf or hard-of-hearing.
- The inner ear is about the size of a pencil eraser, but it contains more than 20,000 hairs.
- Your sense of hearing is dependent upon tiny hairs deep inside your ear. If you lose these hairs, you lose your hearing.
- Not all living creatures hear with ears. Snakes use jawbones, fish respond to pressure changes, and male mosquitoes use antennae.
- Your hearing can be damaged permanently even after a single incident of exposure to extremely loud noise (shotgun blast, explosion, *etc*.).
- You do not need to clean wax out of your ears unless you have an abnormal condition. Ears push excess wax out as needed.

**2. Read the text "Ear Diseases in Children", then find different elements of the ear on the diagram. Be ready to discuss the text.**

**American Sign Language for the Deaf**


**Anatomical Structure of the Ear**



*The majority of individuals suffering from hearing loss are under the age of 65.*

*The number one cause of hearing loss is exposure to excessively loud sounds (85 decibels or higher).*

## Reading

# Ear Diseases in Children

### Structure of the Ear

The human ear is one of the most remarkable parts of the human body, not only because of the beauty and unlikelihood of its structure, but also because of its remarkable sensitivity to sounds. The ear has the receptors for both hearing and **equilibrium**. From an anatomical point of view, the ear is conventionally and conveniently divided into three parts: the outer, the middle and the inner ears.

The **outer ear** is called the **auricle** (or **pinna)** and is made of cartilage covered by skin. Sound moves through the pinna into the external auditory canal, a short tube that ends at the **eardrum** (**tympanic membrane**).

Sound causes the eardrum and its tiny attached bones (**ossicles**) in the middle portion of the ear to vibrate, and the vibrations are conducted to the nearby **cochlea**. The spiral-shaped cochlea is part of the **inner ear**; it transforms sound into nerve impulses that travel to the brain.

The fluid-filled semicircular canals (**labyrinth**) attach to the cochlea and nerves in the inner ear. They send information on balance and head position to the brain. The **eustachian** (auditory) **tube** drains fluid from the **middle ear** into the throat (pharynx) behind the nose.

## Ear Conditions

### Hearing Loss

Hearing impairment may result from congenital or acquired problems that affect the ear itself or any nervous pathways concerned with the sense of hearing. Genetic factors are thought to cause more than 50% of all incidents of congenital hearing loss in children. Other causes that are not **hereditary** in nature include **intrauterine** infections, e.g. rubella, or herpes simplex virus, complications associated with the Rh factor in the blood, **prematurity**, maternal diabetes, lack of oxygen. It may range from inability to hear certain frequencies of sound to a complete loss of hearing (**deafness**). People with extreme **hearing loss** that originates in the inner ear may benefit from a cochlear implant. This prosthesis stimulates the cochlear nerve and may allow the recipient to hear medium to loud sounds.

### Otitis

However, the most common cause of hearing loss in children is otitis media. Otitis media is the most frequently diagnosed disease in infants and young children. 75% of children experience at least one episode of otitis media by their third birthday.

**Otitis media** refers to an infection that leads to the accumulation of fluid in the middle ear cavity. One cause is malfunction or obstruction of the eustachian tube, such as by allergy, enlarged adenoids, injury, or congenital abnormalities. Another cause is infection that spreads to the middle ear, most commonly from the upper respiratory tract. Continued infection may lead to accumulation of **pus** and **perforation** of the eardrum. If untreated, the infection may spread to other regions of the ear and head. Treatment is with antibiotics. A tube also may be placed in the tympanic membrane to ventilate the middle ear cavity, a procedure called a **myringotomy**.

**Otitis externa** is inflammation of the external auditory canal. Infections in this region may be caused by a fungus or bacterium and are most common among those living in hot climates and among swimmers, so it is called “swimmer’s ear.” Otitis externa affects all ages, a peak incidence being registered in children aged 5-16 years.

### Meniere Disease

**Meniere disease** is a disorder that affects the inner ear. It seems to involve the production and circulation of the fluid that fills the inner ear, but the cause is unknown. The symptoms are **vertigo** (dizziness), hearing loss, pronounced **tinnitus** (ringing in the ears), and feeling of pressure in the ear. The course of the disease is uneven, and symptoms may become less severe with time. Meniere disease is treated with drugs to control nausea and dizziness, such as those used to treat motion sickness. In severe cases, the inner ear or part of the eighth cranial nerve may be destroyed surgically.

# Vocabulary Practice

**1. Look at the words in bold type on p. 55 and explain them.**

**2. Match the terms with their definitions.**

| | |
|---|---|
| **1.** equilibrium | **a.** The portion of the inner ear that is concerned with the sense of equilibrium |
| **2.** hearing | **b.** The capacity to hear |
| **3.** cochlea | **c.** The tube that connects the middle ear with the nasopharynx and serves to equalize pressure between the outer and middle ear |
| **4.** pinna | **d.** The smallest bones of the middle ear |
| **5.** vestibular apparatus | **e.** The sense of balance |
| **6.** eustachian tube | **f.** The coiled portion of the inner ear that contains the receptors for hearing |
| **7.** ossicles | **g.** The projecting part of the outer ear; auricle |

**3. Choose the terms from the active vocabulary of the unit to match the following definitions.**

1. _____- an instrument for examining the ear.
2. _____- a sensation of noises, such as ringing or tinkling, in the ear
3. _____- an illusion of movement, caused by disturbances in the vestibular apparatus; often used to mean dizziness or lightheadedness
4. _____- inflammation of the external auditory canal; swimmer's ear
5. _____- a disease associated with increased fluid pressure in the inner ear and characterized by hearing loss, vertigo, and tinnitus
6. _____ - inflammation of the middle ear with accumulation of watery (serous) or mucoid fluid
7. _____- surgical incision of the tympanic membrane; performed to drain the middle ear cavity or to insert a tube into the tympanic membrane for drainage

**4. Complete this description using the words and phrases below.**

| | |
|---|---|
| pinna | inner ear |
| ear canal | oval window |
| eardrum | cochlea |
| sound waves | hair cells |
| middle ear | auditory nerve |

### How the Ear Works

Sounds from the outside world are picked up by the outer ear, which is made up of the _____ (**1**) and the ear canal. As the sound waves enter the ear, the _____ (**2**) serves to increase the loudness of those pitches that make it easier to understand speech. At the same time the ear canal protects another important part of the ear: the _____ (**3**) - a flexible, circular membrane which vibrates when touched by _____ (**4**). The sound vibrations continue their journey into the _____ (**5**), which contains three tiny bones called the ossicles, which are also known as the hammer, anvil and stirrup. These bones form the bridge from the eardrum into the ____ _____(**6**). They increase and amplify the sound vibrations even more, before safely transmitting them on to the inner ear via the _____ (**7**). The inner ear, or _____ (**8**), resembles the circular shell of a snail, and houses a system of tubes which are filled with a watery fluid. As the sound waves pass through the oval window the fluid begins to move, setting tiny _____ (**9**) in motion. In turn, these hairs transform the vibrations into electrical impulses that travel along the _____ (**10**) to the brain itself. Exactly how the brain actually translates these nerve impulses remains a mystery.

**5. Match each of these symptoms with one or more of the ear conditions a-d below.**

1. deafness
2. vertigo
3. tinnitus
4. fluid in the middle ear
5. pressure in the ear
6. perforation of the eardrum
7. accumulation of pus
8. inability to hear certain frequencies of sounds
9. inflamed auditory canal

a otitis media
b otitis externa
c Meniere disease
d hearing loss

# Language Development

**1.a. Read the following information and be ready to answer the questions.**

## Ear Tests

The first test for an ear problem is often just looking at the ear. An **otoscope** is a device to look into the ear canal to see the drum. Besides, there are a number of other tests to check the ear problems.

**Auditory testing:** An audiologist examines a person's hearing in each ear, using sounds of varying volume and frequency. A graphed record, or **audiogram**, is made and compared with that of an individual with normal hearing.

**Computed tomography**: A CT scanner uses X-rays and a computer to create images of the ears and surrounding structures.

**Magnetic resonance imaging:** Using radio waves in a magnetic field, a scanner creates high-resolution images of the ears and surrounding structures.

**The Rinne test assesses both air and bone conduction of sound.**

**b. Answer the questions.**

1. What does usually examination of the ear begin with?
2. What device is used to examine the ear canal?
3. What does the auditory test check? What does it include?
4. What other tests can you name? What do they check?

**2. Look through the text about the ear diseases and answer the following questions.**

1. What is the most characteristic feature of the ear?

_____

_____

2. What are the main parts of the ear?

_____

3. What is the role of the outer ear?

_____

_____

4. What processes occur in the middle ear?

_____

5. What is the function of the cochlea?

_____

_____

6. What diseases of the ear are there?

_____

_____

7. What congenital and acquired problems may cause hearing loss?

_____

_____

8. What kind of disease is otitis?

_____

9. What group of population does otitis usually affect?

_____

10. What are the symptoms of Meniere disease?

_____

_____

11. How are different ear diseases treated?

_____

_____

**3. Look at the diagram on p.66 and describe the process of sound perception.**

**4. Look at the underlined sentence in ex. 1.a. and put all types of questions to it.**

_____

_____

_____

# Grammar in Use

**Verbs followed by "ing" form (gerund or participle)**

**1. Повторите грамматический материал по теме занятия:**

https://www.englisch-hilfen.de/en/grammar_list/gerund_infinitiv.htm

**2. Выполните грамматические упражнения по следующим ссылкам:**

https://www.englisch-hilfen.de/en/exercises/structures/gerund_progressive.htm

https://www.englisch-hilfen.de/en/exercises/structures/gerund_infinitive_verbs.htm

https://www.englisch-hilfen.de/en/exercises/structures/gerund_infinitive2.htm

**3. Project.**

**Nowadays, lots of ear conditions can be improved with modern devices, like hearing aid or cochlear implant. Surf the Internet and answer the questions:**

- What devices are there? What ear disorders can they help cope with?
- What are they made of? How do they work?

Where can hearing aids be bought? How much do they cost?

# Checklist

Assess your progress in this unit. Tick (✓) the statements that are true.

- I can describe the structure of the ear
- I know the causes of the main ear diseases
- I can describe the symptoms and treatment of common ear diseases
- I can use constructions followed by gerund or participle

# Key Words

auricle /ˈɹrlkql/ = pinna /ˈplnq/*n*
cochlea /ˈkOklIq/ *n*
deafness /dɐfnqs/ *n*
eardrum /ˈlqdrʔm/ = tympanic membrane /tlm ˈpxnlk ˈmɐmbrɐln/
equilibrium /ˌJkwlˈllbrlqm/ *n*
eustachian tube /jʧlˈstɐlʃqn tjʧIb/
hearing loss /ˈhlqrlɴ lOs/
hereditary /hlˈrɐdltqrl/ *adj*
inner ear /ˈlnq lq/
intrauterine /ˌlntrqˈjʧltqrəln/ *adj*
labyrinth /ˈlxbqrlnT/ *n*
Meniere disease /mɐnˈjɐq dlˈzJz/
middle ear /ˈmldl lq/
myringotomy /ˌmlrlnˈgOtqml/ *n*
ossicles /ˈOslkqls/ *n pl.*
otitis /qu ˈtaltls/ *n*
otitis externa /qu ˈtaltls ɐksˈtWnq/
otitis media /qu ˈtaltls ˈmJdlq/
otoscope /ˈqutqskqup/ *n*
outer ear /ˈautq lq/
perforation /ˌpWfqˈrɐlʃqn/ *n*
prematurity /prɐmqˈtjuqrltl/ *n*
pus /pʔs/ *n*
tinnitus /ˈtlnltqs/ *n*
vertigo /ˈvWtlgqu/ *n*

Look back through this unit. Find other words and expressions that you think are useful and worth learning.

# UNIT XVI. CHILD DEVELOPMENT

**In this unit**

- talking about child development
- describing each stage of child development
- revision: tense forms

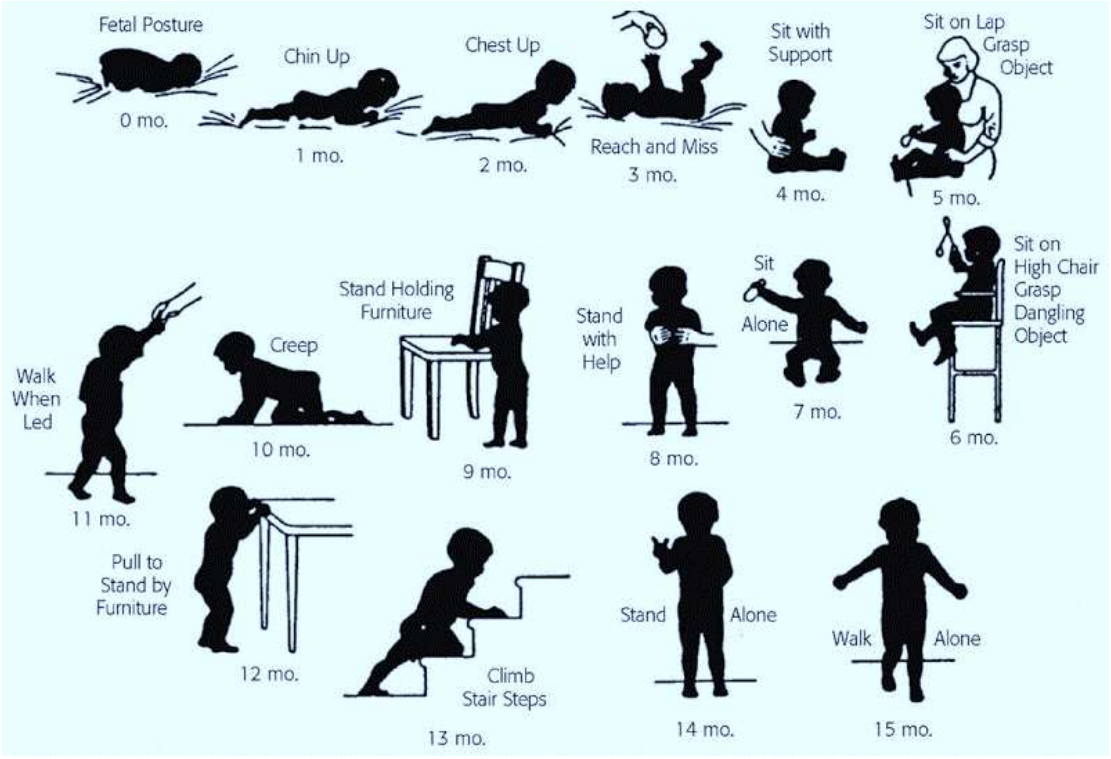
## Lead-in

**1. Read fascinating child development facts that are sure to make you say "Wow!" (an abstract from an article for expecting mothers)**

- Starting at around 28 weeks of pregnancy, your baby can smell the same things that you're smelling. (The amniotic fluid babies float in actually enhances their sense of smell.) So when you order that chicken vindaloo in your third trimester, your baby is taking in the aroma right along with you.
- Your baby is growing, but by how much? An average baby triples his birth **weight** by her first birthday. She also adds 1 to 1 ½ inches in **height** every month. If you were 8 pounds and 20 inches at birth and continued growing at that rate, by age 20 you'd be about 25 feet tall and weigh nearly 315 pounds.
- Children understand language much earlier than they can speak it. By age 1, they typically understand about 70 words. At about 18 months, toddlers' spoken vocabulary starts to explode, adding new words at the astonishing rate of one every two waking hours.
- Preschoolers begin to see themselves as individuals. When your kid announces, "Mine!" while clinging to his truck in a play-group, it's not so much a selfish refusal to share as it is a **cognitive** achievement. His declaration of "mine" is his way of saying he understands that you and the other children are separate from him.
- Psychological changes in the brain let grade-schoolers begin to draw moral distinctions based on internal judgment. Before this age, kids obey the rules to avoid getting in trouble. Now their own conscience is growing and they can see the difference between right and wrong.

**2. Read the text "Child Development" and be ready to discuss it.**

**Depiction of motor milestones from fetal posture (top left) to walk alone (bottom right)**



*Children allowed to develop at their own speed will usually win the race of life.* *Fred O. Gosman*

# Reading

## Child Development

Child development refers to the biological, psychological and emotional changes that occur in human beings between birth and the end of **adolescence**, as the individual progresses from dependency to increasing autonomy. Developmental change may occur as a result of genetically-controlled processes known as **maturation** or as a result of environmental factors and learning, but most commonly involves an interaction between the two.

### Infancy

During the first year of the children's life, they will go from naive newborns who have little motor control to on-the-verge-of-toddling babies. This first stage of child development includes rapid physical growth that supports their new abilities. Major **milestones** include rolling over at roughly 4 to 6 months, sitting up unassisted by 6 months old and **crawling** or even walking by 12 months. By the end of the infant stage, children also have the **fine motor**, or hand, **skills** to use a pincer grasp, which lets them pick up small objects between their thumb and forefinger and make attempts to scribble with a crayon or other writing tool. Between 4 and 6 months babies will begin to purposefully **babble** and laugh or squeal with emotion. By 12 months old, an infant may also have the ability to say simple words, such as "mama," and understand a limited vocabulary of basics, such as "no."

### Toddlers

Between 1 and 3 years old, the child is making major strides toward independence. During the toddler stage, children are up on their feet walking and running. By 24 months, most children can kick a ball, walk up and down stairs with help and carry objects while moving. Toddlers can also scribble, build block towers and start to feed themselves. Language and communication skills sharply increase at this stage, with the typical 2 year old understanding between 500 and 700 words and speaking well over 500 words. Socially and emotionally, toddlers are **immature**, having little self-control and an unsophisticated style.

### Preschool

Even if a child doesn't attend a formal preschool program, the ages between 3 and 5 are typically known as the preschool stage. By age 4, most children can move well, hopping and standing on one foot, and kicking a softball with ease. By 5 years old, children may even **climb** on play equipment and skip. Additionally, the preschooler's growing fine motor and **cognitive** skills allow them to draw geometric shapes, patterns and human figures and write some letters of the alphabet. Emotionally, the **preschooler** is building greater self-regulation abilities and has the ability to verbally express what she is feeling instead of only using gestures or physical aggression. Socially, preschoolers are entering a new world where they are making their first true friends based on similar interests. They have the skills to **share** and take turns and can show **empathy** toward others.

### Grade School Children

From approximately age 6 through early adolescence, children are most often known as **grade schoolers**. At this stage children enter grade school. During the early grade school years, children may **rely** more on parents for their emotional and social needs. As the child moves through these years toward adolescence, **peers** start playing larger roles in the child's life. Physically, the grade schooler has the **gross motor skills** to master new forms of movement, such as sports, dance lessons, drawing and writing of the alphabet. Grade school-aged children learn educational basics that they will use throughout their life, such as mathematics, language, writing and science.

### Adolescence

During the beginning of adolescence, children will go through **puberty,** which is the process of physical changes through which a child's body matures into an adult body capable of sexual reproduction to **enable** fertilization. Teens typically **strive** to become more independent and often focus more on friendship and romantic relationships than those with their **immediate family**.

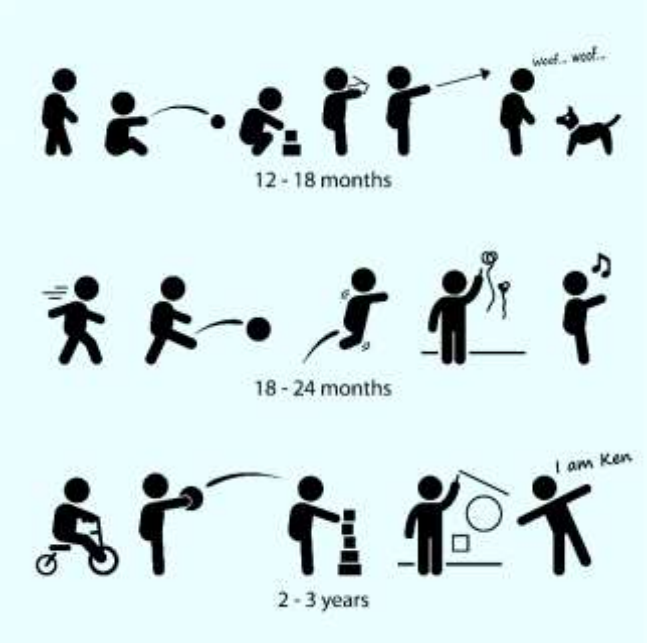
# Vocabulary Practice

**1. Look at the words in bold type on p.71 and explain them.**

**2. Match the words with their definitions.**

| | |
|---|---|
| 1. adolescence | **a**. the ability to understand another person's feelings |
| 2. maturation | **b**. to trust |
| 3. milestone | **c.** a person who is an equal in social standing, rank, or age |
| 4. to crawl | **d.** to move upward on or mount, especially by using the hands and feet or the feet alone |
| 5. to babble | **e.** to move forward on hands and knees |
| 6. to strive | **f.** the process of becoming adult |
| 7. to climb | **g.** stage |
| 8. empathy | **h.** to produce speech sounds in vocal play, such as "ba-ba-ba" |
| 9. to rely | **i.** the time in a person's life when he develops from a child into an adult |
| 10. peer | **j.** to fight, to make efforts |

**3. Look at the picture showing the typical child development. What can a toddler do?**




1. Between 12 and 18 months a child can _____ _____.
2. Between 18 and 24 months a child can _____ _____.
3. Between 24 and 36 months a child can _____ _____.

**4. Fill in the gaps with the words from the box.**

| |
|---|
| age, paediatrician, achieve, gross, fine, milestones, stomach, talking, development, skills, developmental, language |

There's more to tracking your baby's _____ (1) than measuring height and weight. There are a number of other childhood _____ (2) to keep watch for.You can look for signs of emerging motor and language _____ (3) in the very first months of your baby's life. "Babies begin to vocalize around 1 month," Dr Bailey says. "At 3 months, they should push their head up when they're on their_____ (4). By 4 months, they babble in response to you and squeal with laughter."

Bailey says it's a good idea for parents to watch for these early childhood milestones, along with the more obvious "firsts" such as walking and _____ (5). Just be careful about comparing your child with peers or older siblings. "Remember that each child is an individual," Bailey says. "There's a wide range for when children _____ (6) a particular milestone. For example, I've seen children walk as early as 9 months or as late as 14 months."

So how can you tell the difference between a child who is just taking his or her time and one who has a true _____ (7) delay? A developmental delay is when a child does not reach a milestone by the upper range of normal. Even though babies develop at their own pace, every child should do certain tasks by a certain _____ (8). These tasks fall into five main categories:

1. _____ (9) motor skills, such as crawling and walking
2. _____ (10) motor skills, such as stacking blocks or coloring
3. _____ (11) skills, including speech and comprehension
4. Thinking skills
5. Social interaction. Remember, a child can stray from this timeline and still be within the range of normal, but it's best to discuss any concerns with your ___ (12).

# Language Development

**1. Look through the text about the child development and answer the following questions.**

1. What is child development?

_____
_____

2. What may developmental changes be influenced by?

_____
_____

3. What is maturation?

_____
_____

4. What is the period of infancy characterized by?

_____
_____

5. What ability does an infant have by 12 months old?

_____

6. What can toddlers do by the age of 24 months?

_____
_____

7. Are toddlers socially and emotionally mature?

_____

8. What motor and cognitive skills are growing at preschool age?

_____
_____

9. How do children change emotionally and socially at preschool age?

_____
_____

10. At what age do children develop the gross motor abilities?

_____

11. What is puberty?

_____

**2. Complete the sentences:**

1. The developmental changes may be strongly influenced by _____
_____.

2. Between 1 and 3 years old, your child is making major strides toward _____
_____.

3. The ages between 3 and 5 are typically known as the _____
_____.

4. During the early grade school years, children may rely more on parents for _____
_____.

5. Teens typically strive to become more _____
_____
_____.

**3. Read an essay and think about the main problems of teenagers and ways to cope with them:**

Being a parent to teenagers can be a challenging, worrying and sometimes distressing time.While teenagers are pushing against the system in their search for independence, parents can feel rejected, criticised and confused. The home may become a battleground with constant power wrangles and high emotion. But this is just a pale reflection of what's going on inside your teenagers body.

**Understanding teenagers**

The average teenager's body is changing at an alarming rate, which, by the way, is one of the reasons they sleep so much! As hormones shift and surge, the body, brain and emotions are on a permanent rollercoaster. But hormones are only part of the story.

**Teenage psychology**

The psychological goal of adolescence is to become independent from parents and establish their own identity and place within society. This involves building their own friendships and controlling their own emotional responses. Making their own decisions and moral choices. Developing their own beliefs and plans for the future.It is an exciting time for teenagers, but also a very scary and challenging one. A time when the support and encouragement of parents is paramount to their transition into adulthood.

## Grammar Point / Self-Assessment (Units IX-XVI)

**1. Complete the following sentences with active vocabulary of the units.**

1. The body's immune system recognizes an allergen in food as foreign and produces _____ to cope with the invasion.
2. Drugs used to suppress allergic reactions are _____.
3. A lot of people have _____ reactions to certain foods and food ingredients.
4. The feeling when one is about to vomit is _____ .
5. In case of anaphylactic shock,_____ can be injected subcutaneously or intravenously.
6. A physician who specializes in study of the endocrine system is _____ .
7. Excess sugar in the blood is called _____ _____ .
8. The most common problem with the endocrine system is _____ .
9. The endocrine glands located above the kidneys are the _____.
10. The _____ gland helps to regulate the human sleep-wake cycle.
11. The gland in the neck that affects metabolic rate is the _____ .
12. The gland under the brain that controls other glands is _____ .

**2. Fill in the gaps with the following words.**

| | | | |
|---|---|---|---|
| smoking | sensitive | remains | molecules |
| repair | chemical | teenagers | kidneys |
| surface | regular | build up | energy |

**Diabetes: What Is It?**

To have _____ (**1**) you need sugar, so there's a little bit of sugar in your blood at all times. Your body uses a _____ (**2**) called "insulin" to let this sugar into your cells. Insulin is produced in the pancreas, which is an organ that sits behind your stomach.

Most cells in your body have insulin receptors on their outer _____ (**3**). Insulin fits into these receptors like a key opening a lock. When this connection is made, it signals special transporter proteins to move up to the cell membrane, where they allow more sugar _____ (**4**) to enter the cell. This sugar fuels your body's cells, giving them the energy they need to work properly and _____ (**5**) themselves.

Normally, your body is able to maintain proper levels of sugar in your blood and inside your cells. But in people with diabetes, the body's cells stay locked and sugar can't get in to provide energy. This causes too much sugar to _____ (**6**) in the blood. Over time, high levels of sugar in the blood can lead to serious health problems in the eyes, feet and hands, _____ (**7**), and heart.

There are two main types of diabetes -- type 1 and type 2.

Type 1 diabetes usually begins in young children and _____ (**8**). People with this type of diabetes have a pancreas that doesn't produce enough insulin -- or stops producing it altogether. This means they need to have insulin shots on a _____ (**9**) basis to help keep their blood sugar at the right level.

Type 2 diabetes happens in people whose pancreas DOES make insulin. But in a person with this type of diabetes, the insulin receptors on the cells' surface become less _____(**10**). Since the receptors don't respond to the insulin anymore, sugar stays locked out of the cells and _____ (**11**) in the blood. Type 2 diabetes is usually seen in older people. Also, things like being overweight and _____ (**12**) can make a person more likely to get type 2 diabetes. This is especially true for those who are African American or Hispanic.

**3.a. Match hormone produced with their functions.**
**b. Write the glands that secrete these hormones.**

| | |
|---|---|
| **1.** estrogen | **a.** decreases blood sugar level |
| **2.** thyroxin | **b.** increases blood sugar level |
| **3.** testosterone | **c.** regulates biological rhythms |
| **4.** parathyroid hormone | **d .**produces analgesia and a feeling of well-being |
| **5.** endorphin | **e.** regulates the level of calcium and phosphorus |
| **6.** melatonin | **f.** produces male secondary sex characteristics |

| | |
|---|---|
| **7.** glucagon | **g.** increases rate of metabolism |
| **8.** insulin | **h.** produces female secondary sex characteristics |
| **9.** adrenaline | **i.** increases heart rate, breathing rate, elevates blood pressure, raises blood sugar |

**4. Match the term from the column on the right with the definition on the left:**

| | |
|---|---|
| 1. hormone that regulates metabolism of sugar in the body<br>2. chemical substances that stimulate growth and activity in the cells of tissues and organs<br>3. network of organs that control the body's chemical messages<br>4. male endocrine glands<br>5. the glands that control the levels of calcium in the body<br>6. sex hormone released by ovaries<br>7. stage of development in which the reproductive system maturates | a. hormones<br>b. endocrine system<br>c. testes<br>d.parathyroids<br>e. insulin<br>f. estrogen<br>g. puberty |

**5. Fill in the correct form (active or passive) of the infinitive (with or without *to*).**

**How to look after yourself if you have asthma**

If you've been diagnosed with asthma, you should _____(1) (know) that this disease can't _____ (2) (cure) and triggers can't always _____ (3) (avoid). Of course, you are expected _____ (4) (use) all your medications regularly. However, there are other ways _____ (5) (achieve) a normal life. _____(6) (begin) with, you should _____ (7) (learn) _____ (8) (avoid) triggers. Stopping smoking is the best way _____ (9) (help) yourself if you have asthma. Smoke acts as an irritant and can _____ (10) (trigger) asthma attacks. Inhaled medicine turns out _____ (11) (be) less effective. As a result, you're likely_____ (12) (need) _____ (13) (take) bigger doses of inhaled steroid medication. Besides, physical exercises should _____ (14) (take) regularly. It is the healthy thing _____ (15) (do).

You are supposed _____ (16) (understand) your condition. You should _____ _____ (17) (know) what _____ (18) (do) when things change.

Asthma symptoms such as wheezing and shortness of breath are known _____ (19) (cause) by cold air. So it is recommended _____ (20) (stay) indoors on very cold and windy days.

It is also important _____ (21) (eat) a healthy diet and _____ (22) (not/be) overweight. As a proverb has it, 'Eat _____ (23) (live), not live _____ (24) (eat)'. _____ (25) (sum) it up, take good care of yourself, and you will surely _____ (26) (live) a long and happy life.

**6. Rewrite the sentences using the verbs given and infinitive constructions.**

1. *Diabetes insipidus* is caused by either kidney or pituitary gland damage. (know)

_____
_____.

2. The patient is feeling better now, after he has been given an insulin shot. (believe)

_____
_____.

3. I guess she has been doing exercises for 40 minutes already. (seem)

_____
_____.

4. One in ten primary school children suffers from asthma. (consider)

_____
_____.

5. Non-insulin dependent diabetes was diagnosed in one person. (turn out)

_____
_____.

6. Pollution-related illnesses include kidney disease, anaemia and defects in the endocrine system. (suppose)

_____
_____.

7. BP hasn't been taken yet. (expect)

_____
_____.

**7. Complete the following sentences with active vocabulary of the units.**

1. The _____ is responsible for balance.
2. The basic functional unit of the nervous system is _____.
3. A fibre extending from the cell body of neuron and carrying impulses toward the cell body is the _____.
4. A whitish, fatty material that protects the axon and speeds electric conduction is _____.
5. Bleeding in the brain is a _____ haemorrhage.
6. The human young from the time of birth to one year of age is an _____.
7. A _____ is a young child, usually one between the ages of one and two and a half.
8. The total amount of growth hormone that is secreted per day increases to a maximum at about the time of _____.
9. He was at least fifteen kg in _____.
10. He was at least 90 cm in _____.
11. _____ is the passing on of physical or mental characteristics genetically from one generation to another:
12. Juvenile diabetes is an ailment that strikes its victims before or during _____.
13. Skills such as taking a first step, smiling for the first time, and waving "bye bye" are called developmental _____.
14. She _____ on her parents for tuition.
15. Discussion with teachers and _____ improves cognitive ability.
16. _____ is the innermost layer and the actual visual receptor.
17. _____ is the condition when the retina is too far from the front of the eye.
18. _____ is an abnormal increase in pressure within the eyeball.
19. _____ is a condition in which the eyes do not point in the same direction.
20. Sound moves through the pinna into the external auditory canal that ends at _____.

**8. Choose the best answer among A, B, C, D.**

1. This disorder relates to what she **ingests.**

| | |
|---|---|
| A breaths in | C believes |
| B eats, drinks or swallows | D says |

2. Any **side effects** on the patients must be noticed.

| | |
|---|---|
| A desirable effects | C beneficial effects |
| B undesirable effects | D lateral effects |

3. Other symptoms include **fatigue**, blurred vision, increased hunger, and sores that do not heal.

| | |
|---|---|
| A extreme cold | C excitement |
| B extreme heat | D extreme tiredness |

4. The best way to prevent allergic rhinitis is to **avoid** the things to which you are allergic.

| | |
|---|---|
| A keep on | C get used to |
| B keep away from | B prevent |

5. A smoker with high blood pressure can increase her **incidence** of heart disease.

| | |
|---|---|
| A birth rate | C number of cases |
| B mortality | D obesity |

6. The pupil of the bad eye is bigger than _____ of the good eye.

| | |
|---|---|
| A which | C that |
| B what | D this |

7. Chlorampheramine **relieves** the symptoms of a hay fever.

| | |
|---|---|
| A increases | C maintains |
| B lessens | D expresses |

8. Progress has been made in **eradication** or control of many life-threatening diseases.

| | |
|---|---|
| A eliminating | C replicating |
| B maintaining | D suggesting |

9. Drinking lots of water make the bladder **bloat**.

| | |
|---|---|
| A clean with water | C infect |
| B enlarge | D invade |

10. Ultrasound investigation of the renal tract is often used to **distinguish** between various sources of bleeding.

| | |
|---|---|
| A differ | C extinguish |
| B differentiate | D distinct |

11. Some studies have found out a **protective** effect of breastfeeding on the development of type I diabetes.

| | |
|---|---|
| A defensive | C relative |
| B offensive | D selective |

12. Most urinary tract infections are caused by bacteria from the **bowel** invading the urinary tract.

| | |
|---|---|
| A stomach | C kidney |
| B esophagus | D intestine |

13. Humankind remains **vulnerable to** many new and resurgent diseases.

| | |
|---|---|
| A resistant to | C liable to be damaged or harmed by |
| B allergic to | D free from |

14. You should have your lungs _____ if your cough lasts for over a month.

| | |
|---|---|
| A X-rayed | C X-raying |
| B X-ray | D to X-ray |

**9. Put the verbs in brackets into the correct infinitive form or the '-ing' form.**

1. She will _____ (return) the books next weekend.
2. The ward doctor suggested _____ (invite) the consultant.
3. They refused _____ (refer) the patient to the hospital.
4. The floor in this ward needs _____ (clean).
5. Our lecturer makes us _____ (do) our homework every evening.
6. The have begun _____ (make) preparations for the Graduation Ball.
7. The neurologist advised his patient _____ (stop) _____ (smoke).
8. I dislike _____ (go) to the department of anatomy alone. I'm scared!

**10. Transform the following sentences using the infinitive constructions (1 or 2).**

1. Experiments have shown that the back of the brain records the visual input from the eyes.

_____
_____.

2. The sense of touch is distributed throughout the body. The physiologists have observed it.

_____
_____.

3. They think the sense of balance is maintained by a complex interaction of visual inputs, the inner ear vestibular system, and the CNS.

_____.

**11. Use the verbs in brackets in the correct form. Both active and passive forms are possible.**

1. While the test _____ (perform), the patient felt very anxious.
2. _____ you ever _____ (take) sedatives?
3. Now, attention, please! Analgesics _____ _____ (inject).
4. What kinds of patients _____ you _____ (see)?
5. 'Could you help me, please? I'm in a hurry, and somebody _____ (call).' 'No problem. I _____ (answer).'
6. Recently, unwanted teen pregnancy _____ _____ (affect) more and more women under the age of 18, usually as a result of poor sexual education or neglect.
7. *Save the Children* is an organization that ___ _____ (form) in 1919.
8. If you _____ (have) any problems, _____ (call) your doctor immediately.
9. 'I'd like so much to work in this hospital.' 'Oh, then _____ (apply) right now! A new obstetrician _____ (look) for.'
10. I can't believe it! My new stethoscope _____ _____ (steal).
11. 'Relax, Mrs Goldsmith. This time tomorrow you _____ (breastfeed) your little one.
12. I was very glad that all the decoration ____ _____ (complete) before I _____ (go) to the birth centre.
13. 'What _____ you _____ (do)?' 'I _____ (smell) these wonderful roses. _____ you _____ (not/know) who _____ (bring) them to my ward?'
14. 'What _____ you _____ (think) about?' 'I _____ (plan) where to put a cot.'
15. 'Where _____ you _____ (live) after you _____ (have) a baby?' 'We _____ (rent) a flat in the downtown.'
16. '_____ the sex of your baby _____ _____ (determine) yet?' 'No. I _____ (see) my ObGyn tomorrow, and I hope she _____ (tell) me that.'

# Checklist

Assess your progress in this unit. Tick (✓) the statements that are true.

- I can name the main stages of child development
- I can characterize each period of child development

# Key Words

adolescence /ɤdqˋlɐsqnsʃ *n*
babble /ˋbɤblʃ *v*
climb /klaImʃ *v*
cognitive /ˋkOgnItIvʃ *adj*
crawl /krLlʃ *v*
empathy /ˋɐmpqTlʃ *n*
enable /lˋnɐIblʃ *v*
fine motor skills /faIn ˋmqutq skIIzʃ
grade-schooler /ˋgrɐIdskϮIlqʃ *n*
gross motor skills /grqus ˋmqutq skIIzʃ
height /haItʃ *n*
immature /Imqˋtjuqʃ *adj*
immediate family /IˋmJdIqt ˋfɤmIIlʃ
infancy /ˋInfqnsIʃ *n*
maturation /mɤtjuˋrɐISqnʃ *n*
milestone /ˋmaIIstqunʃ *n*
peer /pIqʃ *n*
pre-schooler /ˋprJskϮIlqʃ *n*
puberty /ˋpjϮIbqtIʃ *n*
rely /rIˋlaIʃ *v*
share /Sɐqʃ *v*
strive /straIvʃ *v*
toddler /ˋtOdIqʃ *n*
weight /wɐItʃ *n*

**Проект**

**Surf the Internet and be ready to speak on the following:**

- When should parents start teaching their child to read? to count? to write?
- What are the benefits (if any) or disadvantages (if any) of early learning?
- When is it “too early” or “too late” to start your child training?

What will there be your priorities as far as your child is concerned when you become a parent yourself?

# VOCABULARY

***adj = adjective*** /ˈɣɢlɪtɪv/ имя прилагательное
***adv = adverb*** /ˈɣdvɛːb/ наречие
***conj = conjunctive*** /kɑnˈɢʌɴktɪv/ союз, союзное слово
***irreg = irregular*** /ɪˈrɛgjʊlɑ/ неправильный *(о глаголах)*
***pl = plural*** /ˈplʊɑrɑl/ множественное число
***prep = preposition*** /ˌprɛpɑˈzɪʃɑn/ предлог
***pron = pronoun*** /ˈprɑʊnaʊn/ местоимение
***pp = past participle*** /pʀst ˈpʀtɪsɪpl/ причастие прошедшего времени
***n = noun*** /naʊn/ имя существительное
***v = verb*** /vɛːb/ глагол

**A**

**abdomen** /ˈɣbdɑmɑn/ *n* брюшная полость, живот
**abdominal** /ɣbˈdɑmɪnɑl/ *adj* абдоминальный, брюшной
**ablation** /ɑˈblɛɪʃɑn/ *n* иссечение
**abnormality** /ˌɣbnɪˈmɣlɑtɪ/ *n* отклонение, аномалия
**above** /ɑˈbʌv/ *prep* над; *adj* вышеупомянутый
**absorb** /ɑbˈzɪb/ *v* поглощать, абсорбировать
**absorption** /ɑbˈzɪpʃɑn/ *n* поглощение
**abstain** /ɑbˈstɛɪn/ **from** *v* воздерживаться от *чего-л.*
**accessory** /ɑkˈsɛsɑrɪ/ *adj* вспомогательный, дополнительный
**accident** /ˈɣksɪdɑnt/ *n* несчастный случай
**accommodation** /ɑkɔmɑˈdɛɪʃɑn/ *n* аккомодация, приспособляемость
**accompany** /ɑˈkʌmpɑnɪ/ *v* сопровождать
**accumulate** /ɑˈkjʉmjʊlɛɪt/ *v* накапливать, скапливаться
**accumulation** /ɑˌkjʉmjɑˈlɛɪʃɑn/ *n* накапливание, скопление
**accustomed** /ɑˈkʌstɑmd/ *pp;* **to get accustomed to** привыкать к *чему-л.*
**ACE inhibitor** /ɛɪs ɪnˈhɪbɪtɑ/ (**angiotensin-converting enzyme inhibitor**) ингибитор АПФ (*ингибитор ангиотензинпревращающего фермента*)
**ache** /ɛɪk/ *n* боль
**achieve** /ɑˈʧiv/ *v* достигать
**aching** /ˈɛɪkɪŋ/ *adj* больной; ноющий
**acquire** /ɑˈkwaɪɑ/ *v* приобретать
**acquired** /ɑˈkwaɪɑd/ *adj* приобретенный
**acute** /ɑˈkjʉt/ *adj* острый *(о боли, стадии заболевания)*
**add** /ɣd/ *v* прибавлять, присоединять
**adjust** /ɑˈʤʌst/ *v* приспосабливаться
**admit** /ɑdˈmɪt/ *v* принимать, допускать
**adolescence** /ɣdɑˈlɛsɑns/ *n* юность, подростковый период
**adrenal** /ɑˈdrjnɑl/ *adj* надпочечный; *n* надпочечная железа
**adult** /ˈɣdɑlt, ɑˈdʌlt/ *n* взрослый человек; *adj* взрослый
**advanced** /ɑdˈvʀnst/ *adj* современный, «продвинутый»
**advertisement** /ɑdˈvɯtɪsmɑnt/ *n* рекламное объявление
**advice** /ɑdˈvaɪs/ *n* совет
**advise** /ɑdˈvaɪz/ *v* советовать
**affect** /ɑˈʃɛkt/ *v* оказывать *(вредное)* воздействие
**affected** /ɑˈʃɛktɪd/ *adj* поражённый *(болезнью)*
**affirmative** /ɑˈʃɯmɑtɪv/ *adj* утвердительный
**age** /ɛɪʤ/ *n* возраст; век
**aging** /ˈɛɪʤɪŋ/ *n* старение; *adj* стареющий
**aid** /ɛɪd/ *v* оказывать помощь
**AIDS (acquired immunodeficiency syndrome)** /ɛɪdz/ СПИД, синдром приобретенного иммунодефицита
**aim** /ɛɪm/ *n* цель; *v* ставить целью
**airborne** /ˈɛɪbɔɪn/ *adj* воздушно-капельный
**alcohol abuse** /ˈɣlkɑhɔl ɑˈbjʉs/ злоупотребление алкоголем
**alcohol-induced** /ˈɣlkɑhɔl ɪnˈdjʉst/ *adj* вызванный алкоголем
**alimentary** /ˈɣlɪˈmɛntɑrɪ/ *adj* пищеварительный
**alkaline** /ˈɣlkɑlaɪn/ *adj* щелочной
**allergen** /ˈɣlɑʤɑn/ *n* аллерген
**allergy** /ˈɣlɑʤɪ/ *n* аллергия
**almost** /ˈɔlmɑʊst/ *adv* почти
**alone** /ɑˈlɛʊn/ *adj* один, сам
**alter** /ˈɔltɑ/ *v* изменять
**alternate** /ɔlˈtɯnɑt/ *adj* чередующийся, поочередный
**alternative** /ɒlˈtɛːnɑtɪv/ *n* альтернатива, выбор
**although** /ɔlˈðɑʊ/ *conj* хотя; несмотря на
**amazement** /ɑˈmɛɪzmɑnt/ *n* изумление
**ambulance** /ˈɣmbjɑlɑns/ *n* машина скорой помощи
**amniotic fluid** /ɣmnɪˈɔtɪk ˈflʌɪd/ амниотическая жидкость
**amniotic sac** /ɣmnɪˈɔtɪk sɣk/ амнион, амниотическая оболочка
**amount** /ɑˈmaʊnt/ *n* количество, сумма
**anaemia** /ɑˈnjmɪɑ/ *n* анемия
**anaesthetic** /ˌɣnɑsˈθɛtɪk/ *n* обезболивающее средство; *adj* обезболивающий

**anaphylaxis** /ˌanəfɪˈlæksɪs/ *n* анафилаксия (*мгновенная реакция аллергического типа*)
**ancient** /ˈeɪnʃənt/ *adj* древний
**anger** /ˈæŋgə/ *n* гнев
**angina (pectoris)** /anˈdʒaɪnə (ˈpektərɪs)/ стенокардия
**angioplasty** /ˈænʤɪəˌplæstɪ/ *n* ангиопластика (*реконструкция сосудов*)
**angry** /ˈæŋgrɪ/ *adj* сердитый
**ankle** /ˈæŋkl/ *n* лодыжка
**antacid** /ænˈtæsɪd/ *n* антацид *(средство, нейтрализующее кислоту)*
**anthrax** /ˈænθræks/ *n* сибирская язва
**antibody** /ˈæntɪbɔdɪ/ *n* антитело
**antigen** /ˈæntɪʤən/ *n* антиген
**antihistamine** /ˌæntɪˈhɪstəmɪn/ *n* антигистаминное средство
**anus** /ˈeɪnəs/ *n* анальное отверстие
**anxiety** /æŋˈzaɪətɪ/ *n* тревога, боязнь
**anxious** /ˈæŋkʃəs/ *adj* тревожный, озабоченный
**aorta** /eɪˈɔːtə/ *n* аорта
**apart from** /əˈpɑːt frəm/ *prep* кроме
**apartment building** /əˈpɑːtmənt ˈbɪldɪŋ/ многоквартирный дом
**apex** /ˈeɪpeks/ *n* верхушка
**appendectomy** /ˌæpənˈdektəmɪ/ *n* апендэктомия *(удаление червеобразного отростка)*
**appendix** /əˈpendɪks/ *n* аппендикс; приложение
**apply** /əˈplaɪ/ *v* применять
**apply** /əˈplaɪ/ *v* применять; подавать заявление (*о приеме на работу*)
**apprehension** /ˌæprɪˈhenʃən/ *n* опасение, мрачное предчувствие
**approach** /əˈprəuʧ/ *n* подход
**appropriate** /əˈprəuprɪət/ *adj* подходящий, соответствующий
**approximately** /əˈprɔksɪmətlɪ/ *adv* приблизительно, почти
**arm** /ɑːm/ *n* рука *(предплечье + плечо)*
**armpit** /ˈɑːmpɪt/ *n* подмышечная ямка
**arrest** /əˈrest/ *n* остановка; *v* угнетать, останавливать
**arrhythmia** /eɪˈrɪðmɪə/ *n* аритмия
**artery** /ˈɑːtərɪ/ *n* артерия
**arthritis** /ɑːˈθraɪtɪs/ *n* артрит
**assess** /əˈses/ *v* оценивать
**associate** /əˈsəuʃɪeɪt/ *v* связывать
**astigmatism** /əˈstɪgmətɪzm/ *n* астигматизм
**at least** /ət lɪst/ по крайней мере
**atrium** (pl: **atria**) /ˈeɪtrɪəm (ˈeɪtrɪə)/ *n* предсердие
**atrophy** /ˈætrəfɪ/ *n* атрофия, истощение
**attach** /əˈtæʧ/ *v* прикреплять, присоединять(ся)
**attack** /əˈtæk/ *n* приступ
**attempt** /əˈtempt/ *n* попытка
**attenuated** /əˈtenjueɪtɪd/ *adj* ослабленный
**auditory** /ˈɔdɪtərɪ/ *adj* слуховой
**auricle** /ˈɔrɪkl/ = **pinna** /ˈpɪnə/ *n* ушная раковина
**autism** /ˈɔtɪzm/ *n* аутизм
**autonomic nervous system** /ˌɔtəˈnɔmɪk ˈnəːvəs ˈsɪstəm/ автономная (вегетативная) нервная система
**average** /ˈævərɪʤ/ *adj* средний, среднестатистический
**avoid** /əˈvɔɪd/ *v* избегать
**aware** /əˈweə/ *adj* осведомлённый; **be aware of sth** знать, осознавать
**axon** /ˈæksɔn/ *n* аксон

**B**

**babble** /ˈbæbl/ *v* лепетать, болтать
**back** /bæk/ *n* спина
**backflow** /ˈbækfləu/ *n* обратный ток; рефлюкс
**bacterium** (*pl.* **bacteria**) /bækˈtɪərɪəm (bækˈtɪərɪə)/ *n* бактерия
**bald** /bɔːld/ *adj* лысый
**balloon** /bəˈluːn/ *n* воздушный шар; шар-зонд
**because of** /bɪˈkɔz əv/ *prep* из-за
**bedridden** /ˈbedˌrɪdən/ *adj* прикованный к постеле
**belief** /bɪˈlɪf/ *n* убеждение
**believe** /bɪˈlɪv/ *v* верить, полагать
**below** /bɪˈləu/ *adv* внизу; *prep* ниже, под
**beneath** /bɪˈnɪθ/ *adv* ниже; внизу
**benign** /bɪˈnaɪn/ *adj* доброкачественный
**beta blocker (β-blocker)** /ˈbeɪtəˈblɔkə/ *n* бета-блокатор (*лекарственное вещество, блокирующее бета- рецепторы*)
**bicuspid** /baɪˈkʌspɪd/ *adj* двустворчатый
**bilaterally** /baɪˈlætərəlɪ/ *adv* с двух сторон
**bile** /baɪl/ *n* желчь
**biopsy** /ˈbaɪəpsɪ/ *n* биопсия
**birth** /bəːθ/ *n* рождение
**bladder** /ˈblædə/ *n (мочевой)* пузырь, *тж.* **urinary bladder** /ˈjuərɪnərɪ ˈblædə/
**bloated** /ˈbləutɪd/ *adj* вздутый (*о животе; вследствие скопления газов*)
**bloating** /ˈbləutɪŋ/ *n* вздутие
**blockage** /ˈblɔkɪʤ/ *n* блокада
**blocked** /blɔkt/ *pp* заблокированный
**blood clot** /blʌd klɔt/ сгусток крови
**blood loss** /blʌd lɔs/ кровопотеря
**blood pressure** /blʌd ˈpreʃə/ кровяное (артериальное) давление
**blood-stained** /ˈblʌdsteɪnd/ *adj* с примесью крови

**bloodstream** /ˈblʌdstriːm/ *n* кровоток
**blurred vision** /blɜːd ˈvɪʒn/ расплывчатое зрение
**boast** /bəʊst/ *v* хвастаться
**boring** /ˈbɔːrɪŋ/ *adj* скучный
**bottom** /ˈbɔtəm/ *n* низ, дно
**botulism** /ˈbɔtjʊlɪzm/ *n* ботулизм *(острая инфекционная болезнь из группы кишечных инфекций)*
**bowel** /baʊəl/ *n, usually pl.* кишечник
**bowel sounds** /baʊəl saʊndz/ кишечный шум
**brain** /breɪn/ *n* мозг
**branch** /brɑːnʧ/ *n* ветвь, отрасль; *v* разветвляться
**break** /breɪk/ *v irreg* ломать, разбивать; **break up** распадаться; **break down** расщеплять(ся)
**breakdown** /ˈbreɪkdaʊn/ *n* расщепление
**breath** /breθ/ *n* дыхание (*вдыхаемый и выдыхаемый воздух*)
**breathe** /briːð/ **in** *v* вдыхать
**breathe** /briːð/ **out** *v* выдыхать
**breathe** /briːð/ *v* дышать
**breathing** /ˈbriːðɪŋ/ *n* = **ventilation** /ˌventɪˈleɪʃn/ *n* (внешнее) дыхание (*газообмен между организмом и окружающей средой*)
**breathlessness** /ˈbreθlɪsnɪs/ = **shortness of breath** /ˈʃɔːtnɪs ɔv breθ/ *n* одышка
**bring** /brɪŋ/ *v irreg* приносить; **bring about** вызывать, осуществлять; **bring up** воспитывать
**brittle** /ˈbrɪtl/ *adj* хрупкий, ломкий
**bronchiole** /ˈbrɔŋkɪəʊl/ *n* бронхиола
**bronchus** (pl. **bronchi**) /ˈbrɔŋkəs (ˈbrɔŋkaɪ)/ *n* бронх
**bruising** /ˈbruːzɪŋ/ *n* синяк, кровоподтек
**bug** /bʌg/ *n* жучок
**build-up** /ˈbɪldʌp/ *n* создание
**bulky** /ˈbʌlkɪ/ *adj* объёмный
**burning** /ˈbɜːnɪŋ/ *adj* жгучий; *n* жжение
**burst** /bɜːst/ *v* разрываться
**by-products** /ˈbaɪˌprɔdʌkts/ *n pl.* побочные продукты

**C**

**C. difficile = Clostridium difficile** /siː dɪfɪˈsiːl/ *название вида строго анаэробных грамположительных бактерий*
**caecum** /ˈsiːkəm/ *n* слепая кишка
**calcitonin** /ˌkælsɪˈtəʊnɪn/ *n* кальцитонин
**cancel** /ˈkænsəl/ *v* отменять
**cancer** /ˈkænsə/ *n* рак *(заболевание)*
**capillary** /kəˈpɪlərɪ/ *n* капилляр
**carbohydrate** /ˌkɑːbəʊˈhaɪdreɪt/ *n* углевод
**carbon dioxide** /ˈkɑːbən daɪˈɔksaɪd/ углекислота, углекислый газ
**cardiac arrest** /ˈkɑːdɪək əˈrest/ остановка сердечной деятельности
**cardiogenic** /ˌkɑːdɪəˈʤenɪk/ *adj* кардиогенный, обусловленный деятельностью сердца
**cardiovascular system** /ˌkɑːdɪəʊˈvæskjʊlə ˈsɪstəm/ сердечно-сосудистая система
**care** /keə/ *n* забота; *v* заботиться
**carefully** /keəfəl/ *adv* осторожно
**carrier** /ˈkærɪə/ *n* носитель
**carry** /ˈkærɪ/ *v* нести, переносить
**case-history** /ˈkeɪs ˌhɪstərɪ/ *n* история болезни
**cataract** /ˈkætərækt/ *n* катаракта
**catch** /kæʧ/ *v irreg.* заразиться, подхватить
**cause** /kɔːz/ *n* причина; *v* вызывать, быть причиной
**cauterize** /ˈkɔːtəraɪz/ *v* прижигать
**caution** /ˈkɔːʃn/ *n* осторожность; предостережение
**cavity** /ˈkævɪtɪ/ *n* полость (*в т.ч. кариозная*)
**cease** /siːs/ *v* прекращать
**central nervous system** /ˈsentrəl ˈnɜːvəs ˈsɪstəm/ центральная нервная система
**certain** /ˈsɜːtən/ *adj* определенный
**certainty** /ˈsɜːtəntɪ/ *n* определенность
**challenge** /ˈʧælɪnʤ/ *v* бросать вызов, побуждать к действиям
**challenging** /ˈʧælɪnʤɪŋ/ *adj* побуждающий к действиям, требующий напряжения сил
**chamber** /ˈʧeɪmbə/ *n* камера
**charlatan** /ˈʃɑːlətən/ *n* шарлатан
**chart** /ʧɑːt/ *n* таблица, график
**cheat** /ʧiːt/ *v* пользоваться шпаргалками, жульничать
**check** /ʧek/ *v* проверять; **check-up** осмотр у врача
**chest** /ʧest/ *n* грудная клетка
**chew** /ʧuː/ *v* жевать
**chickenpox** /ˈʧɪkɪnpɔks/ *n* = **varicella** /ˌværɪˈselə/ *n* ветряная оспа
**chill** /ʧɪl/ *n* озноб
**cholecystic** /ˌkəʊlɪˈsɪstɪk/ *adj* относящийся к желчному пузырю
**cholera** /ˈkɔlərə/ *n* холера
**cholesterol** /kəˈlestərɔl/ *n* холестерин
**chorion** /ˈkɔːrɪən/ *n* хорион, ворсинчатая оболочка
**choroid** /ˈkɔːrɔɪd/ *n* сосудистая оболочка *(напр., хорион)*
**chronic** /ˈkrɔnɪk/ *adj* хронический
**chuckle** /ˈʧʌkl/ *v* посмеиваться
**cilia** /ˈsɪlɪə/ *n pl.* реснички
**chyme** /kaɪm/ *n* химус *(содержимое желудка или кишечника)*
**cilia** /ˈsɪlɪə/ *n pl.* реснички
**ciliary body** /ˈsɪlɪərɪ ˈbɔdɪ/ ресничное тело

**ciliated** /sɪlɪˈeɪtɪd/ *adj* реснитчатый
**circle** /ˈsɜːkl/ *n* круг
**circulate** /ˈsɜːkjʊleɪt/ *v* циркулировать
**circulation** /ˌsɜːkjʊˈleɪʃn/ *n* кровообращение
**circulatory** /ˌsɜːkjʊˈleɪtərɪ/ *adj* кровеносный, циркуляторный
**circumstance** /ˈsɜːkəmstɑːns/ *n* обстоятельство
**clay** /kleɪ/ *n* глина
**clear** /klɪə/ *adj* прозрачный; *v* очищать
**climb** /klaɪm/ *v* взбираться
**clog** /klɒg/ *v* засорять, блокировать
**clogged** /klɒgd/ *adj* заблокированный
**clot** /klɒt/ *n* сгусток; *v* свертываться
**clubbing** /ˈklʌbɪŋ/ *n* "барабанные палочки" (*утолщение концевых фаланг пальцев*)
**clue** /klɪː/ *n* ключ (*к разгадке*)
**cluster** /ˈklʌstə/ *n* скопление
**coach** /kəʊtʃ/ *n* кушетка
**cochlea** /ˈkɒklɪə/ *n* улитка (*уха*)
**coeliac disease** /ˈsɪlɪæk dɪˈzɪz/ целиакия, глютеновая энтеропатия (*непереносимость глютена*)
**cognitive** /ˈkɒgnɪtɪv/ *adj* когнитивный, познавательный
**cold** /kəʊld/ *n* простуда, *тж.* **common cold**
**collapse** /kəˈlæps/ *n* упадок сил; *v* сильно ослабеть
**colostomy** /kəˈlɒstəmɪ/ *n* колостомия *(наложение соустья на ободочную кишку)*
**comb** /kəʊm/ *n* расческа
**combine** /kəmˈbaɪn/ *v* сочетать
**command** /kəˈmɑːnd/ *n* приказ; *v* приказывать
**common** /ˈkɔmən/ *adj* распространенный
**communicability** /kəˌmjʊnɪkəˈbɪlɪtɪ/ *n* контагиозность
**communicable** /kəˈmjʊnɪkəbl/ *adj* инфекционный, контагиозный
**compensate** /ˈkɒmpənseɪt/ *v* возмещать
**competitiveness** /kəmˈpetɪtɪvnɪs/ *n* конкуренция
**complain** /kəmˈpleɪn/ *v* жаловаться ***(of –*** на*)*
**complete** /kəmˈplɪt/ *v* завершать; *adj* полный
**complication** /kɒmplɪˈkeɪʃn/ *n* осложнение
**compound** /kəmˈpaʊnd/ *n* смесь, соединение; *adj* сложный, составной; *v* смешивать
**compress** /kəmˈpres/ *v* сдавливать
**conceive** /kənˈsɪv/ *v* зачать
**concern** /kənˈsɜːn/ *v* касаться, иметь отношение
**concussion** /kənˈkʌʃn/ *n* сотрясение, контузия
**condition** /kənˈdɪʃn/ *n* условие; состояние
**confined** /kənˈfaɪnd/ **to bed** прикованный к постеле
**confirm** /kənˈfɜːm/ *v* подтверждать
**confusion** /kənˈfjʊʒn/ *n* спутанность сознания
**congenital** /kənˈdʒenɪtl/ *adj* врождённый
**congestive** / kənˈdʒestɪv / *adj* застойный
**congestive heart failure** /kənˈdʒestɪv hɑːt ˈfeɪljə/ застойная сердечная недостаточность
**conjunctiva** /ˌkɔnʤʌŋkˈtaɪvə/ *n* конъюнктива (*слизистая оболочка глаза*)
**conjunctivitis** /kənˌʤʌŋktɪˈvaɪtɪs/ *n* конъюнктивит
**conscience** /ˈkɔnʃəns/ *n* сознание
**consider** /kənˈsɪdə/ *v* полагать
**considerably** /kənˈsɪdərəblɪ/ *adv* значительно
**consist** /kənˈsɪst/ **of** состоять из
**constipation** /kɔnstɪˈpeɪʃən/ *n* запор
**constitute** /ˈkɔnstɪtjʊt/ *v* составлять
**constricted** /kənˈstrɪktɪd/ *adj* сжатый, суженный
**consume** /kənˈsjʊm/ *v* потреблять
**consumption** /kənˈsʌmpʃən/ *n* потребление
**contain** /kənˈteɪn/ *v* содержать
**contagious** /kənˈteɪʤəs/ *adj* контагиозный, заразный
**contain** /kənˈteɪn/ *v* содержать
**contamination** /kənˌtæmɪˈneɪʃən/ *n* инфицирование, заражение
**continue** /kənˈtɪnjʊ/ *v* продолжать
**continuity** /kɔntɪˈnjʊɪtɪ/ *n* непрерывность
**contract** /kənˈtrækt/ *v* сокращаться
**contraction** /kənˈtrækʃən/ *n* сокращение *(мышц)*
**contribute** /kənˈtrɪbjʊt/ *v* способствовать
**conversation** /ˌkɔnvəˈseɪʃən/ *n* беседа
**conversion** /kənˈvɜːʃən/ *n* превращение
**convert** /kənˈvɜːt/ *v* превращать
**convincing** /kənˈvɪnsɪŋ/ *adj* убедительный
**cope** /kəʊp/ **with** справляться с *чем-л.*
**cornea** /ˈkɔːnɪə/ *n* роговица
**coronary** / ˈkɔrənərɪ / *adj* коронарный
**cortex** /ˈkɔːteks/ *n* кора головного мозга
**coryza** /kəˈraɪzə/ *n* острый ринит, насморк
**cottage cheese** /ˈkɔtɪʤ ʧiːz/ *n* творог
**cough** /kɔf/ *n* кашель; *v* кашлять
**couple** /kʌpl/ *n* пара (*напр., муж и жена*)
**courage** /ˈkʌrɪʤ/ *n* мужество
**cowpox** /kaʊpɔks/ *n* коровья оспа
**crackle** /ˈkrækl/ *v* потрескивать, хрустеть
**cramp** /kræmp/ *n* судорога, спазм
**craving** /ˈkreɪvɪŋ/ *n* тяга (**for** – к *чему-л.*)
**crawl** /krɔːl/ *v* ползать
**create** /krɪˈeɪt/ *v* создавать
**crushing** /ˈkrʌʃɪŋ/ *adj* сокрушительный
**crust** /krʌst/ *n* корочка

**culture/culturing** /ˈkʌlʧq(rlɴ)/ *n* культура (*микроорганизмов*)
**curable** /ˈkjuqrqbl/ *adj* излечимый
**cure** /kjuq/ *v* излечить
**current** /ˈkʌrqnt/ *adj* текущий
**Cushing syndrome** /ˈkuʃlɴ ˈslndrqum/ синдром гиперкортицизма
**cut** /kʌt/ *n* порез, разрез; *v irreg.* резать, порезать(ся)
**cutaneous** /kjtlˈtelnlqs/ *adj* кожный
**cyanosis** /ˌsalqˈnqusls/ *n* цианоз (*синюшная окраска кожи и слизистых оболочек*)
**cystitis** /slˈstaltls/ *n* цистит

**D**

**dairy** /ˈdɛqrl/ *adj* молочный
**damage** /ˈdxmlG/ *n* повреждение; *v* повреждать
**damp** /dxmp/ *adj* сырой, влажный
**dander** /ˈdxndq/ = **dandruff** /ˈdxndrʌf/ *n* перхоть
**dangerous** /ˈdɛlnGqrqs/ *adj* опасный
**deafness** /dɛfnqs/ *n* глухота
**death** /dɛT/ *n* смерть
**decline** /dlˈklaln/ *v* уменьшаться, идти на спад
**decomposition** /ˌdJkqmpqˈzlʃqn/ *n* разложение
**defend** /dlˈfɛnd/ *v* защищать
**defense** /dlˈfɛns/ *n* защита
**deficiency** /dlˈflʃqnsl/ *n* дефицит
**degeneration** /dl,Gɛnqˈrɛlʃqn/ *n* вырождение
**dehydrate** /ˌdJhalˈdrɛlt/ *v* обезвоживать
**delay** /dlˈlɛl/ *n* задержка, *v* запаздывать
**deliberate** /dlˈllblrqt/ *adj* спланированный, неслучайный
**deliberately** /dqˈllbqrqtll/ *adv* не случайно, спланированно
**deliver** /dlˈllvq/ *v* доставлять; **deliver a baby** принимать роды
**dendrite** /ˈdɛndralt/ *n* дендрит (*отросток нервной клетки*)
**deny** /dlˈnal/ *v* отрицать
**depend** /dlˈpɛnd/ *v* зависеть ***(on – от)***
**depending on** /dlˈpɛndlɴ qn/ в зависимости от
**derive** /dlˈralv/ **from** происходить от
**dermatology** /ˌdWmqˈtOlqGl/ *n* дерматология
**dermis** /ˈdWmls/ *n* дерма, собственно кожа
**describe** /dlˈskralb/ *v* описывать
**desirable** /dlˈzalqrqbl/ *adj* желательный
**despite** /dlˈspalt/ *prep* несмотря на, вопреки
**destroy** /dls ˈtrOl/ *v* разрушать
**destruction** /dlˈstrʌkʃqn/ *n* разрушение, уничтожение
**detect** /dlˈtɛkt/ *v* обнаруживать, выявлять
**deteriorate** /dlˈtlqrlqrɛlt/ *v* ухудшать(ся)
**determine** /dlˈtЄ:mln/ *v* определять
**detoxicate** /dJˈtOksIkɛlt/ = **detoxify** /dJˈtOkslfal/ *v* детоксифицировать (*освобождать(ся) от алкогольной или наркотической зависимости*)
**determine** /dlˈtЄ:mln/ *v* определять
**detoxicate** /dJˈtOkslkɛlt/ = **detoxify** /dJˈtOkslfal/ *v* детоксифицировать (*освобождать(ся) от алкогольной или наркотической зависимости*)
**detoxification** /dJ,tOkslflˈkɛlʃqn/ *n* детоксикация
**develop** /dlˈvɛlqp/ *v* развиваться
**device** /dlˈvals/ *n* прибор
**diabetes (mellitus)** /ˌdalqˈbJtJz (ˈmɛlltqs)/ *n* (сахарный) диабет
**diagnose** /ˈdalqgnquz/ *v* диагностировать
**diagnosis** /dalqgˈnqusls/ *n* диагноз
**diaphragm** /ˈdalqfrxm/ *n* диафрагма
**diarrheoa** /"dalqˈrlq/ *n* диарея, жидкий стул
**diastole** /dalˈxstqll/ *n* диастола
**die** /dal/ *v* умирать
**dietary** /ˈdalqtrl/ *adj* диетический, пищевой
**differ** /ˈdlfq/ *v* различаться
**diffusion** /dlˈfjHZqn/ *n* диффузия, распространение
**digest** /dalˈGɛst/ *v* переваривать *(пищу)*
**digestion** /d(a)lˈGɛsCqn/ *n* пищеварение
**digestive** /dalˈGɛstlv/ *adj* пищеварительный
**digestive system** /d(a)lˈGɛstlv ˈslstqm/ пищеварительная система
**dilate** /d(a)lˈlɛlt/ *v* расширять
**dilated** /d(a)lˈlɛltld/ *adj* расширенный
**dilute** /dalˈlHt/ *v* разбавлять, разводить
**diphtheria** /dlfˈTlqrlq/ *n* дифтерия
**dipsophobia** /ˌdlpsquˈfqubjq/ *n* дипсофобия (*патологическая боязнь питья алкоголя*)
**direct** /dlˈrɛkt/ *adj* прямой; *v* направлять
**directly** /dlˈrɛktll/ *adv* прямо, непосредственно
**dirty** /dWtl/ *n* грязный
**discharge** /dlsˈCRG/ *v* выписывать *(из больницы)*; *n* выделения (*из раны*)
**discoloration** /dls,kʌlqˈrɛlʃqn/ *n* нарушение окраски или цвета
**disorder** /dlˈsLdq/ *n* расстройство, нарушение
**disruption** /dlsˈrʌpʃqn/ *n* нарушение; разрыв
**dissolve** /dlˈzQlv/ *v* растворять
**distend** /dlˈstɛnd/ *v* расширять(ся)
**distinct** /dlˈstlɴkt/ *adj* четкий; отдельный
**distress** /dlˈstrɛs/ *n* тяжелое недомогание; расстройство
**distribute** /dlˈstrlbjHt/ *v* распределять
**dizzy** /ˈdlzl/ *adj* испытывающий головокружение

**DNA (deoxyribonucleic acid)** ДНК, дезоксирибонуклеиновая кислота
**doorknob** /ˈdɬnOb/ *n* дверная ручка
**drain** /drɛɪn/ *v* оттекать, отводить воду
**drainage** /ˈdrɛɪnIG/ *n* дренирование
**drop** /drOp/ *n* капля; *v* капать
**droplet** /ˈdrOpIIt/ *n* капля
**droplet contact** /ˈdrOpIIt ˈkOntqkt/
**drug** /drʌg/ *n* лекарство
**dry** /draI/ *adj* сухой
**duct** /dʌkt/ *n* канал, проток
**due to** /djʉ tq/ из-за
**duodenal** /ˌdjʉIq ˈdJnqI/ *adj* относящийся к двенадцатиперстной кишке
**duodenum** /ˌdjʉIq ˈdJnqm/ *n* двенадцатиперстная кишка
**dust** /dʌst/ *n* пыль
**dye** /daI/ *n* краситель
**dysentery** /ˈdIsɛntrI/ *n* дизентерия
**dysfunction** /dIs ˈfʌNkSqn/ *n* дисфункция
**dyspnoea** /dIsp ˈnJq/ *n* одышка
**dysuria** /dIs ˈjuqrIq/ *n* дизурия, боль при мочеиспускании

**E**

**eardrum** /ˈIqdrʌm/ = **tympanic membrane** /tIm ˈpxnIk ˈmɛmbrɛɪn/ барабанная перепонка
**echocardiogram** /ˌɛkquk ˈkRdIqgrqm/ *n* эхокардиограмма
**echocardiography** /ˌɛkqukRdI ˈOgrqfI/ *n* эхокардиография (ЭхоКГ)
**effector** /I ˈfɛktq/ *n* эффектор *(в физиологии, генетике, биохимии)*
**effort** /ˈɛfqt/ *n* усилие
**ehrlichiosis** /W,laIkI ˈqusIs/ *n* эрлихиоз (*острое инфекционное заболевание*)
**elephantiasis** /ˌɛIIfqn ˈtaIqsIs/ *n* слоновая болезнь, элефантиаз
**elevate** /ˈɛIIvɛɪt/ *v* поднимать
**elevation** /ˌɛII ˈvɛɪSqn/ *n* повышение
**eliminate** /I ˈIImInɛɪt/ *v* устранять
**elimination** /I,IImI ˈnɛISqn/ *n* устранение
**embryo** ɹ ˈɛmbrIqu/ *n* эмбрион
**emesis** /ˈɛmIsIs/ *n* рвота
**empathise** /ˈɛmpqTaIz/ *v* сочувствовать, сопереживать
**empathy** /ˈɛmpqTI/ *n* эмпатия, сочувствие
**emphasise** /ˈɛmfqsaIz / *v* подчеркивать, выделять
**empty** /ˈɛmptI/ *n* пустой; *v* опустошать
**emulsification** /I,mʌIsIfI ˈkɛISqn/ *n* эмульгирование, образование эмульсии
**enable** /I ˈnɛIbI/ *v* давать возможность
**enclose** /In ˈklquz/ *v* окружать, заключать
**encourage** /In ˈkʌrIG/ *v* воодушевлять
**endocrine system** /ˈɛndqukraIn ˈsIstqm/ эндокринная система
**endogenous** /ɛn ˈdOGInqs/ *adj* эндогенный, возникший внутри организма
**endometrium** /ˌɛndq ˈmJtrIqm/ *n* эндометрий (*слизистая оболочка матки*)
**endorphin** /ɛn ˈdɬfIn/ *n* эндорфин
**endoscope** /ˈɛndqskqup/ *n* эндоскоп
**endoscopy** /ɛn ˈdOskqpI/ *n* эндоскопия
**endurance** /In ˈdjuqrqns/ *n* выносливость, стойкость
**enema** /ˈɛnImq/ *n* клизма
**enlarge** /In ˈIRG/ *v* увеличивать
**enough** /I ˈnʌf/ *adv* достаточно
**enteroscopy** /ɛntq ˈrOskqpI/ *n* энтероскопия
**entire** /In ˈtaIq/ *adj* целый, весь
**entirely** /In ˈtaIq/ *adv* целиком, полностью
**envy** /ˈɛnvI/ *v* завидовать
**enzyme** /ˈɛnzaIm/ *n* фермент, энзим
**epiglottis** /ˌɛpI ˈgIOtIs/ *n* надгортанник
**episode (attack)** /ˈɛpIsqud (q ˈtxk)/ *n* приступ
**Epstein-Barr virus** /ˈɛpstaIn bR ˈvaIqrqs/ вирус Эпштейна-Барр (*вирус герпеса человека 4-го типа*)
**equal** /ˈJkwqI/ *adj* равный
**equilibrium** /ˌJkwI ˈIIbrIqm/ *n* равновесие
**eradicate** /I ˈrxdIkɛIt/ *v* искоренять
**eruption** /I ˈrʌpSqn/ *n* прорыв, выброс
**escape** /Is ˈkɛIp/ *v* избегать, выделяться
**estimate** /ˈɛstImɛIt/ *v* оценивать
**evaluation** /I,vxlju ˈɛISqn/ *n* оценка
**eventually** /I ˈvɛnCuqII/ *adv* в конечном счете, в итоге
**evidence** /ˈɛvIdqns/ *n* свидетельство, доказательство
**examine** /Ig,zxmIn/ *v* обследовать
**example** /Ig ˈzRmpI/ *n* пример
**except** /Ik ˈsɛpt/ *prep* кроме
**excess** /Ik ˈsɛs/ *n* избыток, превышение
**excessive** /Ik ˈsɛsIv/ *adj* чрезмерный, излишний
**exchange** /Iks ˈCɛInG/ *n* обмен; *v* обменивать
**excise** /Ik ˈsaIz/ *v* вырезать, удалять (*конечность, орган*) ; иссекать
**exclude** /Ik ˈskIʧd/ *v* исключать
**excrete** /Ik ˈskrJt/ *v* выделять
**exert** /Ig ˈzWt/ *v* приводить в действие, влиять
**exertion** /Ig ˈzWSqn/ *n* (физическая) нагрузка
**exhale** /Iks ˈhɛII/ *v* выдыхать
**exhaust smoke** /Ig ˈzOst smquk/ выхлопные газы
**exhausted** /Ig ˈzOstId/ *adj* измождённый, уставший
**exogenous** /ɛk ˈsOGInqs/ *adj* экзогенный *(вызываемый внешними причинами)*

**expand** /ɪkˈspænd/ *v* расширяться, растягиваться
**expansion** /ɪkˈspænʃn/ *n* расширение
**expect** /ɪkˈspekt/ *v* ожидать, рассчитывать
**expectant mother** /ɪkˈspektənt ˈmʌðə/ будущая мама (*беременная женщина*)
**expel** /ɪkˈspel/ *v* выталкивать
**expensive** /ɪkˈspensɪv/ *adj* дорогой
**experience** /ɪkˈspɪərɪəns/ *n* (жизненный) опыт; *v* испытывать
**expiration** /ˌekspɪˈreɪʃn/ *n* выдох
**expiratory** /ɪkˈspɪrətərɪ/ *adj* экспираторный, относящийся к выдоху
**expose** /ɪkˈspəʊz/ *v* подвергать *(воздействию)*
**exposure** /ɪkˈspəʊʒə/ *n* подвергание воздействию
**express** /ɪkˈspres/ *v* выражать
**expulsion** /ɪkˈspʌlʃn/ *n* выталкивание, изгнание
**extend** /ɪkˈstend/ *v* простираться
**extent** /ɪkˈstent/ *n* степень, мера
**extra** /ˈekstrə/ *adj* дополнительный
**eyebrow** /ˈaɪbraʊ/ *n* бровь
**eyelash** /ˈaɪlæʃ/ *n* ресница
**eyelid** /ˈaɪlɪd/ *n* веко

**F**

**face** /feɪs/ *v* сталкиваться
**facilitate** /fəˈsɪlɪteɪt/ *v* облегчать, содействовать
**facility** /fəˈsɪlətɪ/ *n* устройство, средство
**faecal-oral** /ˈfiːkəl ˈɔːrəl/ **transmission** фекально-оральный механизм передачи инфекции
**faeces** /ˈfiːsiːz/ *n* кал
**fail** /feɪl/ *v* не удаваться
**faint** /feɪnt/ *n* обморок; *v* падать в обморок
**family history** /ˈfæmɪlɪ ˈhɪstərɪ/ семейный анамнез (*часть истории болезни*)
**fasten** /ˈfɑːsn/ *v* застёгивать
**fat** /fæt/ *n* жир
**fatality** /fəˈtælətɪ/ *n* смертность
**fatigue** /fəˈtiːg/ *n* усталость, утомление
**feacal occult blood** /ˈfiːkəl ɒˈkʌlt blʌd/ анализ кала на скрытую кровь
**feature** /ˈfiːtʃə/ *n* отличительная черта
**febrile** /ˈfiːbraɪl/ *adj* лихорадочный
**fertility** /fəˈtɪlətɪ/ *n* фертильность
**fever** /ˈfiːvə/ *n* = **pyrexia** /paɪˈreksɪə/ *n* жар, лихорадка
**feverish** /ˈfiːvərɪʃ/ *adj* лихорадочный
**fibrillation** /ˌfaɪbrɪˈleɪʃn/ *n* мерцание, трепетание (*асинхронное сокращение мышечных или нервных волокон*)
**fibroid** /ˈfaɪbrɔɪd/ *n* фиброзная опухоль
**figure** /ˈfɪgə/ *n* цифра; *pl* цифровые данные
**fill** /fɪl/ *v* наполнять
**findings** /ˈfaɪndɪŋz/ *n pl* данные, результаты
**fine** (=**minute**) /faɪn (maɪˈnjuːt)/ *adj* мелкий, мельчайший
**fine motor skills** /faɪn ˈməʊtə skɪlz/ мелкая моторика
**fist** /fɪst/ *n* кулак
**fit** /fɪt/ *n* припадок
**flake off** /fleɪk ɔf/ *v* отшелушиваться
**flat** /flæt/ *adj* плоский
**flexibility** /fleksɪˈbɪlɪtɪ/ *n* гибкость
**flow** /fləʊ/ *v irreg.* течь
**flu** /flʊ/ *n* грипп
**fluid** /ˈfluːɪd/ *n* жидкость
**follicle** /ˈfɒlɪkl/ *n* фолликул, мешочек
**forget** /fəˈget/ *v irreg.* забывать
**forbid** /fəˈbɪd/ *v irreg.* запрещать
**force** /fɔːs/ *n* сила
**foreign** /ˈfɒrɪn/ *adj* иностранный; инородный
**forget** /fəˈget/ *v irreg.* забывать
**framework** /ˈfreɪmwɜːk/ *n* каркас, строение
**frequency** /ˈfriːkwənsɪ/ *n* частота
**frontal** /ˈfrʌntəl/ *adj* передний
**fuel** /fjʊəl/ *n* топливо, горючее
**full-blown** /ˈfʊlbləʊn/ *adj* полноценный, развившийся
**fuse** /fjuːz/ *v* сплавляться, объединяться
**fuss** /fʌs/ *n* суета

**G**

**gain** /geɪn/ *v* получать, приобретать
**gall bladder** /ˈgɔːlblædə/ *n* желчный пузырь
**gastric** /ˈgæstrɪk/ *adj* относящийся к желудку
**gastritis** /gæˈstraɪtɪs/ *n* гастрит
**gastroenteritis** /ˌgæstrəʊentəˈraɪtɪs/ *n* гастроэнтерит
**gastrointestinal** /ˈgæstrəʊɪnˈtestɪnəl/ *adj* желудочно-кишечный
**gastrointestinal tract** /ˌgæstrəʊɪnˈtestɪnəl træk/ желудочно-кишечный тракт
**generalised** /ˈdʒenərəlaɪzd/ *adj* генерализованный, распространенный
**generate** /ˈdʒenəreɪt/ *v* генерировать, создавать
**generation** /ˌdʒenəˈreɪʃn/ *n* поколение
**germ** /dʒɜːm/ *n* зародыш; микроб, микроорганизм
**german measles** /ˈdʒɜːmən ˈmiːzlz/ *n* = **rubella** /ruˈbelə/ *n* (коревая) краснуха
**gestation** /dʒeˈsteɪʃn/ *n* период беременности
**give up** /gɪv ʌp/ отказываться от *чего-л.*
**gland** /glænd/ *n* железа
**glandular fever** /ˈglændjʊlə ˈfiːvə/ инфекционный мононуклеоз, железистая лихорадка

**Glasgow coma scale** /ˈglɑzgəu ˈkəumə skeɪl/ шкала комы Глазго
**glaucoma** /glɔːˈkəumə/ *n* глаукома
**gluten** /ˈglʌtn/ *n* глютен, клейковина
**gnawing** /ˈnɔːɪŋ/ *adj* грызущий, мучительный
**goal** /gəul/ *n* цель
**goblet cell** /ˈgɒblɪt sel/ бокаловидная (эпителиальная) клетка
**gonad** /ˈgəunæd/ *n* гонада, половая железа
**grade-schooler** /ˈgreɪdskuːlə/ *n* ученик младших классов
**gradually** /ˈgrædjuəlɪ/ *adv* постепенно
**grey matter** /greɪ ˈmætə/ серое вещество (*мозга*)
**groin** /grɔɪn/ *n* пах
**gross motor skills** /grəus ˈməutə skɪlz/ крупная моторика
**grow** /grəu/ *v irreg.* расти
**guarding** /ˈgɑːdɪŋ/ *n* защитное напряжение *(спазм мышц, уменьшающий подвижность пораженных отделов тела)*
**guess** /ges/ *v* угадывать, преполагать
**gustatory** /ˈgʌstətərɪ/ *adj* вкусовой

**H**

**habit** /ˈhæbɪt/ *n* привычка
**haematoma** /ˌhiːməˈtəumə/ *n* гематома
**haemoglobin** /ˈhiːməˈgləubɪn/ *n* гемоглобин
**haemoptysis** /hiːˈmɔptɪsɪs/ *n* кровохарканье
**haemostasis** /ˈhiːməˈsteɪsɪs/ *n* гемостаз
**harbour** /ˈhɑːbə/ *v* являться носителем (*болезни*)
**harden** /ˈhɑːdn/ *v* напрягаться, затвердевать
**harmful** /ˈhɑːmfəl/ *adj* вредный
**harsh** /hɑːʃ/ *adj* жёсткий, суровый
**hay fever** /heɪ ˈfiːvə/ сенная лихорадка
**heal** /hiːl/ *v* вылечивать, исцелять
**healer** /ˈhiːlə/ *n* целитель, знахарь
**healthcare** /ˈhelθkeə/ *n* здравоохранение
**healthy** /ˈhelθɪ/ *adj* здоровый
**hearing loss** /ˈhɪərɪŋ lɔs/ потеря слуха
**heart** /hɑːt/ *n* сердце
**heart attack** /hɑːt əˈtæk/ сердечный приступ
**heart failure** /hɑːt ˈfeɪljə/ сердечная недостаточность
**heart rate** /hɑːt reɪt/ частота сердечных сокращений
**heart rhythm** /hɑːt rɪðm/ сердечный ритм
**heart sounds** /hɑːt saundz/ тоны сердца
**heartbeat** /ˈhɑːtbiːt/ *n* сердечное сокращение
**heartburn** /ˈhɑːtbɜːn/ *n* изжога
**heel** /hiːl/ *n* пятка
**height** /haɪt/ *n* рост
**Helicobacter pylori** /heˌlɪkəu ˈbæktə paɪˈlɔːraɪ/ *название спиралевидной грамотрицательной бактерии*
**hepatic** /hɪˈpætɪk / *adj* относящийся к печени
**hepatic artery** /hɪˈpætɪk ˈɑːtərɪ/ печеночная артерия
**(hepatic) portal vein** /(hɪˈpætɪk) ˈpɔːtəl veɪn/ воротная вена
**hepatitis** /ˌhepəˈtaɪtɪs/ *n* гепатит
**herbal** /ˈhɜːbəl/ *adj* травяной
**heredity** /hɪˈredɪtɪ/ *n* наследственность
**hesitate** /ˈhezɪteɪt/ *v* колебаться
**hiccups** /ˈhɪkʌps/ *n pl.* икота
**hill** /hɪl/ *n* холм
**HIV/AIDS** /ˌeɪtʃ aɪ ˈviː/eɪdz/ ВИЧ/СПИД
**hives** /haɪvz/ *n* крапивница
**hormone** /ˈhɔːməun/ *n* гормон
**hospital** /ˈhɒspɪtəl/ *n* больница
**hospital acquired diseases** /ˈhɔspɪtəl əˈkwaɪəd dɪˈziːz/ внутрибольничные инфекции
**host** /həust/ *n* хозяин паразита
**hot** /hɒt/ *adj* горячий
**housing** /ˈhaʊzɪŋ/ *n* условия проживания
**however** /haʊˈevə/ *conj* однако
**hurt** /hɜːt/*v irreg* причинять боль, болеть
**hydrochloric acid** /ˌhaɪdrəˈklɔrɪk ˈæsɪd/ соляная кислота
**hygiene** /ˈhaɪdʒiːn/ *n* гигиена
**hyperglycaemia** /ˌhaɪpəgˌlaɪˈsiːmɪə/ *n* гипергликемия (*повышение концентрации глюкозы в крови натощак*)
**hyperopia** /ˌhaɪpərˈəupɪə/ =**farsightedness** /ˈfɑːsaɪtɪdnəs/ *n* дальнозоркость
**hypersensitivity** /ˈhaɪpəˌsensɪˈtɪvɪtɪ/ *n* повышенная чувствительность
**hyperthyroidism** /ˌhaɪpəˈθaɪrɔɪdɪzəm/ *n* гипертиреоз
**hypoglycaemia** /ˌhaɪpəuglaɪˈsiːmɪə/ *n* гипогликемия
**hyporthyroidism** /ˌhaɪpəuˈθaɪrɔɪdɪzəm/ *n* гипотиреоз
**hypothalamus** /ˌhaɪpəuˈθæləməs/ *n* гипоталамус

**I**

**iatrogenic** /aɪˌætrəuˈdʒenɪk/ *adj* ятрогенный (*о неблагоприятных последствиях: вызванный диагностическими или лечебными вмешательствами*)
**iatrogenic transmission** /aɪˌætrəuˈdʒenɪk trænzˈmɪʃən/ ятрогенный путь заражения (*например, через зараженные иглы*)
**identify** /aɪˈdentɪfaɪ/ *v* устанавливать, определять
**illness** /ˈɪlnəs/ *n* болезнь
**image** /ˈɪmɪdʒ/ *n* изображение
**immature** /ɪməˈtjuə/ *adj* незрелый
**immediate family** /ɪˈmɪdɪət ˈfæmlɪ/ ближайшие родственники

**immediately** /ɪ`mjdɪqtɪl/ *adv* немедленно
**immune system** /ɪ`mjʧn `sɪstqm/ иммунная система
**immunity** /ɪ`mjʧnɪtɪ/ *n* иммунитет
**immunization** /ɪˌmjunəɪ`zɛɪSqn/ *n* создание иммунитета
**impairment** /ɪm`pɛqmqnt/ *n* повреждение
**impatience** /ɪm`pɛɪSqns/ *n* нетерпение
**impending** /ɪm`pɛndɪŊ/ *adj* неминуемый, надвигающийся
**implant** /ɪm`plʀnt/ *v* пересаживать, вживлять
**imply** /ɪm`plaɪ/ *v* подразумевать
**impression** /ɪm`prɛSqn/ *n* впечатление
**improve** /ɪm`pruv/ *v* улучшать
**improvement** / ɪm`pruvmqnt/ *n* улучшение
**impulse** /`ɪmpʌls/ *n* импульс, стимул
**incidence** /`ɪnsɪdqns/ *n* заболеваемость
**incise** /ɪn`saɪz/ *v* надрезать, иссекать
**incision** /ɪn`sɪʒqn/ *n* надрез, иссечение
**include** /ɪn`klʧd/ *v* включать в себя
**incompatible** /"ɪnkqm`pxtɪbl/ *adj* несовместимый
**incompetence** /ɪn`kOmpɪtqns/ *n* некомпетентность; недостаточность
**increase** /ɪn`krJs/ *v* увеличивать
**incubation period** /ɪnkju`bɛɪSqn `plqrɪqd/ инкубационный период (*отрезок времени от попадания микроба в организм до проявления симптомов болезни*)
**incubator** /`ɪŃkjubaɪtq/ *n* медицинский инкубатор
**incurable** /ɪn`kjuqrqbl/ *adj* неизлечимый
**indicate** /`ɪndɪkɛɪt/ *v* показывать, указывать
**indication** /"ɪndɪ`kɛɪSqn/ *n* показание
**indigestion** /"ɪndɪ`GɛsCqn/ *n* диспепсия, нарушение пищеварения
**indirectly** /ɪnd(ə)ɪ`rɛktɪl/ *adv* опосредованно
**induce** /ɪn`djʧs/ *v* вызывать, стимулировать
**infancy** /`ɪnfqnsɪ/ *n* младенчество, раннее детство
**infant** /`ɪnfqnt/ *n* младенец
**inferior** /ɪn`fɪqrɪq/ *adj* нижний
**inflamed** /ɪn`flɛɪmd/ *adj* воспаленный
**inflammation** /ɪnflq`mɛɪSqn/ *n* воспаление
**inflammatory** /ɪn`flxmqtqrɪ/ *adj* воспалительный
**inflate** /ɪn`flɛɪt/ *v* накачивать, надувать
**influence** /`ɪnfluqns/ *n* влияние; *v* оказывать влияние, влиять
**influenza** /ɪnflu`ɛnzq/ *n* = **flu** /flʧ / *n* грипп
**ingest** /ɪn`GɛsC/ *v* глотать, принимать внутрь
**ingestion** /ɪn`GɛsCqn/ *n* проглатывание, прием внутрь
**inhale** /ɪn`hɛɪl/ *v* вдыхать
**inhibit** /ɪn`hɪbɪt/ *v* подавлять
**injure** /`ɪnGq/ *v* поражать, травмировать
**injured** /`ɪnGqd/ *adj* травмированный
**injury** /`ɪnGqrɪ/ *n* травма, ранение
**inner ear** /`ɪnq ɪq/ внутреннее ухо
**insert** /ɪn`sWt/ *v* вставлять, вводить
**insignificant** /ɪnsɪg`nɪfɪkqnt/ *adj* незначительный
**insomnia** /ɪn`sOmnɪq/ *n* бессоница
**inspect** /ɪn`spɛkt/ *v* обследовать, осматривать
**inspiration** /ˌɪnspɪ`rɛɪSqn/ *n* вдох; вдохновение
**inspiratory** /ɪn`spaɪqrqtrɪ/ *adj* инспираторный, относящийся к вдоху
**insufficiency** /ɪnsq`fɪSqnsɪ/ *n* недостаточность
**insulin-dependent diabetes** /`ɪnsjulɪn dɪ`pɛndqnt ˌdaɪq`bJtJz/ инсулин-зависимый сахарный диабет (I тип)
**insulin-independent diabetes** /`ɪnsjulɪn ɪndɪ`pɛndqnt ˌdaɪq`bJtJz/ инсулин-независимый сахарный диабет (II тип)
**intake** /`ɪntɛɪk/ *n* прием внутрь
**integral** /ɪn`tɛgrql/ *adj* неотъемлемый; существенный
**integrity** /ɪn`tɛgrɪtɪ/ *n* целостность
**integumentary** /ɪn`tɛgju`mɛntqrɪ/ *adj* покровный, кожный
**integumentary system** /ɪnˌtɛgju`mɛntqrɪ sɪstqm/ система покровов тела
**intensive care unit (ICU)** /ɪn`tɛnsɪv kɛq `jʧnɪt/ отделение интенсивной терапии
**intention** /ɪn`tɛnSqn/ *n* намерение
**interact** /ɪntqr`xkt/ *v* взаимодействовать
**interconnected** /ɪntqkq`nɛktɪd/ *adj* взаимосвязанный
**intercostal space** /ˌɪntq`kOstql spɛɪs/ межреберье
**interfere** /ɪntq`fɪq/ **with** *v* мешать *чему-л.*
**interpret** /ɪn`tWprɪt/ *v* интерпретировать
**interpreter** /ɪn`tWprɪtq/ *n* переводчик (*устный*)
**interrogative** /ˌɪntq`rOgqtɪv/ *adj* вопросительный
**interrupt** /ˌɪntq`rʌpt/ *v* прерывать; нарушать
**intestinal tract** /ɪn`tɛstɪnql trxkt/ кишечный тракт
**intestines** /ɪn`tɛstɪnz/ *n pl.* кишечник
**intramuscular** /"ɪntrq`mʌskjulq/ *adj* внутримышечный
**intravenous** /"ɪntrq`vJnqs/ *adj* внутривенный
**intravenous urography** /ɪntrq`vJnqs ju`rOgrqfɪ/ внутривенная урография
**introduce** /ɪntrq`djʧs/ *v* вводить, внедрять
**invader** /ɪn`vɛɪdq/ *n* патогенный организм
**invasion** /ɪn`vɛɪʒqn/ *n* инвазия *(внедрение в организм человека, животного или растения паразитов животной природы)*
**invite** /ɪn`vaɪt/ *v* приглашать

**involve** /ɪn`vɒlv/ *v* вовлекать, включать
**iris** /`aɪrɪs/ *n* радужная оболочка
**iron** /aɪən/ *n* железо
**irritability** /ɪˌrɪtə`bɪlɪtɪ/ *n* раздражительность
**irritable bowel syndrome** /`ɪrɪtəbl baʊəl `sɪndrəʊm/ синдром раздраженной толстой кишки или СРТК (*характеризуется коликами, вздутием, усиленным газообразованием, неустойчивым стулом*)
**irritation** /ɪrɪ`teɪʃən/ *n* раздражение
**ischaemia** /ɪs`kiːmɪə/ *n* ишемия, местное малокровие
**itching** /`ɪtʃɪŋ/ *n* зуд
**itchy** /ɪtʃ/ *adj* вызывающий зуд
**item** /`aɪtəm/ *n* пункт, вопрос

**J**

**jaundice** /`ʤɔːndɪs/ *n* желтуха
**jaw** /ʤɔː/ *n* челюсть
**jejunal** / ʤɪ`ʤuːnəl/ *adj* отсящийся к двенадцатиперстной кишке
**jejunum** /ʤɪ`ʤuːnəm/ *n* двенадцатиперстная кишка
**juvenile** /`ʤuːvənaɪl/ *adj* юношеский

**K**

**kidney** /`kɪdnɪ/ *n* почка *(орган)*
**kidney failure** /`kɪdnɪ `feɪljə/ = **renal failure** /`rɪnəl `feɪljə/ почечная недостаточность

**L**

**labour** /`leɪbə/ *n* роды (*период от начала схваток до появления ребенка*)
**labyrinth** /`læbərɪnθ/ *n* лабиринт, внутреннее ухо
**lack** /læk/ *v* испытывать недостаток чего-л.
**lacrimal gland** /`lækrɪməl glænd/ слезная железа
**lactose** /`lækteʊs/ *n* лактоза, молочный сахар
**laptop** /læptɒp/ *n* лэптоп, ноутбук
**large intestine** /lɑːʤ ɪn`testɪn/ толстый кишечник
**larynx** /`lærɪŋks/ *n* гортань
**lateral** /`lætərəl/ *adj* латеральный, удаленный от средней линии
**laxative** /`læksətɪv/ *n* слабительное средство; *adj* слабительный
**layer** /leɪə/ *n* слой
**lead** /liːd/ *v irreg* вести, приводить
**legionella** /ˌliːʤə`nelə/ *n* бактерия рода *Legionella*
**Legionnaires' disease** /ˌliːʤə`neəz dɪ`ziːz/ леогинеллёз, «болезнь легионеров» (*форма бактериальной пневмонии*)
**lens** /lenz/ *n* хрусталик глаза
**leprosy** /`leprəsɪ/ *n* проказа
**level** /`levəl/ *n* уровень
**life-threatening** /`laɪf.θretənɪŋ/ *adj* опасный для жизни
**lift** /lɪft/ *v* поднимать
**light-headed** /`laɪthedɪd/ *adj* испытывающий головокружение
**likely** /`laɪklɪ/ *adv* вероятно
**likewise** /`laɪkwaɪz/ *adv* подобным образом
**line** /laɪn/ *v* выстилать
**lining** /`laɪnɪŋ/ *n* выстилка
**liquid** /`lɪkwɪd/ *n* жидкость; *adj* жидкий
**list** /lɪst/ *n* список
**liver** /`lɪvə/ *n* печень
**local anaesthetic** /`ləʊkəl ˌænɪs`θetɪk/ местный анестетик
**look forward to** /lʊk `fɔwəd tə/ *v* с нетерпением ожидать чего-л.
**loop** /lʊp/ *n* петля, круг
**loose** /lʊs/ *adj* свободный, расслабленный;
**loose stool** частый жидкий стул
**loosen** /`lʊsən/ *v* ослаблять
**lose** /lʊz/ *v irreg.* терять
**loss** /lɔs/ *n* потеря
**lower** /ləʊə/ *adj* нижний; *v* опускать
**lower back** /ləʊə bæk/ поясница
**lower respiratory tract** /ləʊə rə`spɪrətərɪ trækt/ нижниедыхательные пути
**lubb-dupp** /lʌb`dʌp/ слоги, имитирующие первый и второй тоны сердца
**lubricate** /`lʊbrɪkeɪt/ *v* смазывать

**M**

**macula** /`mækjʊlə/ *n* пятно, пятнышко
**mad** /mæd/ *adj* сумасшедший
**magnify** /`mægnɪfaɪ/ *v* увеличивать
**mainly** /`meɪnlɪ/ *adv* главным образом
**maintain** /meɪn`teɪn/ *v* поддерживать
**major** /`meɪʤə/ *adj* главный, основной
**malaria** /mə`leərɪə/ *n* малярия
**malformation** /ˌmælfɔ`meɪʃən/ *n* порок развития
**malignancy** /mə`lɪgnənsɪ/ *n* злокачественность
**malignant** /mə`lɪgnənt/ *adj* злокачественный
**manifest** /`mænɪfest/ *v* проявляться
**manufacture** /"mænjʊ`fækʧə/ *v* производить
**masses** /`mæsɪz/ *n pl.* (пальпируемое) образование
**masticate** /`mæstɪkeɪt/ *v* жевать
**match** /mæʧ/ *v* подбирать пару
**maturation** /mæʧʊ`reɪʃən/ *n* созревание
**mature** /mə`ʧʊə/ *v* созревать, *adj* зрелый
**meal** /miːl/ *n* прием пищи
**measles** /`miːzlz / *n* = **rubeola** /rʊ`bɪələ/ *n* корь
**medulla oblongata** /mə`dʌlə ɒblɒŋ`gɑːtə/ продолговатый мозг
**melatonin** /ˌmelə`tənɪn/ *n* мелатонин
**memorise** /`meməraɪz/ *v* запоминать
**Meniere disease** /menɪ`jeə dɪ`ziːz/ болезнь Меньера (*заболевание внутреннего уха*)

**meningitis** /ˌmɛnɪnˈʤaɪtɪs/ *n* менингит
**menopause** /ˈmɛnəpɔːz/ *n* менопауза
**menstrual cycle** /ˈmɛnstruəl saɪkl/ менструальный цикл
**mention** /ˈmɛnʃən/ *v* упоминать
**midbrain** /ˈmɪdbreɪn/ *n* средний мозг
**middle ear** /ˈmɪdl ɪə/ среднее ухо
**mild** /maɪld/ *adj* слабовыраженный
**milestone** /ˈmaɪlstəun/ *n* веха,этап, рубеж
**mind** /maɪnd/ *v* иметь в виду
**minor** /ˈmaɪnə/ *adj* незначительный, лёгкий
**miscarriage** /mɪsˈkærɪʤ/ *n* самопроизвольный аборт
**mitral** /ˈmaɪtrəl/ *adj* митральный
**mitral valve replacement** /ˈmaɪtrəl vælv rɪˈpleɪsmənt/ замена митрального клапана
**moan** /məun/ *v* стонать
**moisten** /ˈmɔɪsən/ *v* увлажнять
**morbid** /ˈmɔːbɪd/ *adj* болезненный, патологический
**morbidity rate** /mɔːˈbɪdɪtɪ reɪt/ заболеваемость
**morbilli** /mɔːˈbɪlaɪ/ *n* корь
**morning sickness** /ˈmɔːnɪŋ ˈsɪknəs/ утренняя тошнота и рвота беременных
**mortality (rate)** /mɔːˈtælɪtɪ/ *n* смертность
**motion** /ˈməuʃən/ *n* движение
**MRSA** /ɑːɛsɑːˈeɪ/ (**methicillin-resistant Staphylococcus aureus**) метициллин-резистентный *Staphylococcus aureus (золотистый стафилококк)*
**mucoid** /ˈmjuːkɔɪd/ *adj* слизеподобный; мукоид
**mumps** /mʌmps/ *n* = **infectious parotitis** /ɪnˈfekʃəs pærəˈtaɪtɪs/ *n* эпидемический паротит, свинка
**murmur** /ˈmɜːmə/ *n* шумы (*в сердце*)
**myelin** /ˈmaɪəlɪn/ *n* миелин
**myocardial infarction** /ˌmaɪəuˈkɑːdɪəl ɪnˈfɑːkʃən/ инфаркт миокарда
**myopia** /maɪˈəupɪə/ =**nearsightedness** /ˈnɪəsaɪtɪdnəs/ *n* близорукость
**myringotomy** /ˌmɪrɪnˈgɔtəmɪ/ *n* миринготомия (*рассечение двух задних квадрантов барабанной перепонки*)

**N**

**nail** /neɪl/ *n* ноготь
**nausea** /ˈnɔːzɪə/ *n* тошнота
**neoplasm** /ˈnɪəuplæzm/ *n* новообразование, опухоль
**nephrologist** /nəˈfrɔlədʒɪst/ *n* нефролог
**nephrology** /nəˈfrɔlədʒɪ/ *n* нефрология
**nephron** /ˈnefrɔn/ *n* нефрон
**nervous system** /ˈnɜːvəs ˈsɪstəm/ нервная система
**nettle rash** /ˈnetl ræʃ/ *n* крапивница
**network** /ˈnetwɜːk/ *n* сеть
**neuron** /ˈnjuərən/ *n* нейрон
**neuropathy** /ˌnjuəˈrɔpəθɪ/ *n* невропатия
**noise** /nɔɪz/ *n* шум
**nourishment** /ˈnʌrɪʃmənt/ *n* питание, пища
**numb** /nʌm/ *v* вызывать онемение; *adj* онемелый, неподвижный
**nutrient** /ˈnjuːtrɪənt/ *n* питательное вещество; *adj* питательный
**nutrition** /njuːˈtrɪʃən/ *n* питание, пища

**O**

**obesity** /əuˈbiːsɪtɪ/ *n* тучность, ожирение
**obstruction** /əbˈstrʌkʃən/ *n* закупорка, обструкция
**obstructive** /əbˈstrʌktɪv/ *adj* обструктивный, закупоривающий
**obtain** /əbˈteɪn/ *v* получать
**obvious** /ˈɔbvɪəs/ *adj* очевидный, само собой разумеющейся
**occasionally** /əˈkeɪʒənəlɪ/ *adv* иногда, изредка
**occipital** /ɔkˈsɪpɪtəl/ *adj* затылочный
**occlusion** /əˈkluːʒən/ *n* закупорка, непроходимость
**occur** /əˈkɜː/ *v* случаться, происходить
**oedema** /ɪˈdʒɪmə/ *n* отёк
**oesophagus** /ɪˈsɔfəgəs/ *n* пищевод
**olfactory** /ɔlˈfæktərɪ/ *adj* обонятельный
**oliguria** /ɔlɪgˈjuərɪə/ *n* олигурия (*уменьшенное выделение мочи*)
**omit** /əˈmɪt/ *v* пропускать
**onset** /ˈɔnsət/ *n* начало, приступ
**ooze** /uːz/ *v* выделяться, истекать
**opacity** /əuˈpæsɪtɪ/ *n* непрозрачность
**opinion** /əˈpɪnjən/ *n* мнение
**opportunistic** /ɔpətuːˈnɪstɪk/ *adj* условно-патогенный (*о микроорганизмах*)
**option** /ˈɔpʃən/ *n* выбор, вариант
**order** /ˈɔːdə/ *n* приказ; *v* приказывать
**orifice** /ˈɔrɪfɪs/ *n* отверстие
**originate** /əˈrɪʤɪneɪt/ *v* происходить, брать начало
**orthopnoea** /ɔːˈθɔpnɪə/ *n* ортопноэ, высшая степень одышки
**ossicles** /ˈɔsɪkəlz/ *n pl.* слуховые косточки
**otitis** /əuˈtaɪtɪs/ *n* отит
**otitis externa** /əuˈtaɪtɪs ekˈstɜːnə/ наружный отит
**otitis media** /əuˈtaɪtɪs ˈmiːdɪə/ средний отит
**otoscope** /ˈəutəskəup/ *n* отоскоп
**outbreak** /ˈautbreɪk/ *n* вспышка, начало
**outer** /ˈautə/ *adj* наружный, внешний
**outer ear** /ˈautə ɪə/ наружное ухо
**outward** /ˈautwəd/ *adj* наружный, внешний
**overall** /ˌəuvərˈɔːl/ *adv* в целом
**overcooked** /əuvəˈkukt/ *adj* пережаренный
**overload** /ˈəuvələud/ *n* перегрузка

**overweight** /ˈəʊvəˈweɪt/ *n* избыточный вес
**overwhelming** /ˌəʊvəˈwelmɪŋ/ *adj* подавляющий, неодолимый
**oviduct** /ˈəʊvɪdʌkt/ *n* маточная, фаллопиева труба
**ovum** /ˈəʊvəm/ *n* яйцо, яйцеклетка
**owing to** /ˈəʊɪŋ tə/ *prep* вследствие

**P**

**pacemaker** /ˈpeɪsˌmeɪkə/ *n* кардиостимулятор
**pallor** /ˈpælə/ *n* бледность
**palpate** /pəˈlpeɪt/ *v* пальпировать
**palpitation** /ˌpælpɪˈteɪʃən/ *n* (учащённое) сердцебиение
**pancreas** /ˈpæŋkrɪəs/ *n* поджелудочная железа
**pancreatic** /ˌpæŋkrɪˈætɪk/ *adj* относящийся к поджелудочной железе
**paramyxovirus** /ˌpærəˈmɪksəˌvaɪrəs/ *n* парамиксовирус
**parathyroid** /pærəˈθaɪrɔɪd/ *n* паращитовидная железа
**parotitis** /ˌpærəˈtaɪtɪs/ *n* паротит *(воспаление околоушной железы)*
**particular** /pəˈtɪkjʊlə/ *adj* особенный
**particularly** /pəˈtɪkjʊləlɪ/ *adv* в особенности
**pass down** /pɑːs daʊn/ передавать
**passageway** /ˈpæsɪdʒweɪ/ *n* проход; канал
**past history** /pɑːst ˈhɪstərɪ/ история предыдущих заболеваний (*часть истории болезни*)
**pathogen** /ˈpæθəʤən/ *n* патоген, возбудитель
**pattern** /ˈpætən/ *n* модель, шаблон
**peak** /piːk/ *adj* высший, максимальный
**peer** /pɪə/ *n* сверстник, ровесник
**peptic ulcer** /ˈpeptɪk ˈʌlsə/ пептическая язва *(желудка и/или двенадцатиперстной кишки)*
**percent** /pəˈsent/ *n* процент
**percentage** /pəˈsentɪʤ/ *n* процентное содержание
**perception** /pəˈsepʃən/ *n* восприятие
**percuss** /pəˈkʌs/ *v* перкутировать
**perfect pitch** /ˈpɜːfɪkt pɪʧ/ абсолютный слух
**perforation** /ˌpɜːfəˈreɪʃən/ *n* перфорация, отверстие
**perform** /pəˈfɔːm/ *v* выполнять
**pericardium** /ˌperɪˈkɑːdɪəm/ *n* перикард
**peripheral** /pəˈrɪfərəl/ *adj* периферический
**peristalsis** /ˌperɪˈstælsɪs/ *n* перистальтика
**permit** /pəˈmɪt/ *v* позволять, разрешать
**pernicious anaemia** /pəˈnɪʃəs əˈnɪmɪə/ злокачественная анемия
**persist** /pəˈsɪst/ *v* сохраняться
**persistent** /pəˈsɪstənt/ *adj* устойчивый, постоянный
**persuade** /pəˈsweɪd/ *v* убеждать
**pertain** /pəˈteɪn/ *v* относиться к
**pertussis** /pəˈtʌsɪs/ *n* коклюш
**phagocytosis** /ˈfægəˈsaɪˈtəʊsɪs/ *n* фагоцитоз
**pharynx** /ˈfærɪŋks/ *n* клотка, зев
**phlegm** /flem/ *n* мокрота, слизь
**physician** /fɪˈzɪʃən/ *n* врач, терапевт
**pick up** /pɪk/ *v* заразиться
**pig** /pɪg/ *n* поросёнок
**pill** /pɪl/ *n* таблетка, пилюля
**pineal** /ˈpɪnɪəl/ *n* пинеальный, относящийся к шишковидному телу
**pituitary** /pɪˈtjʊɪtərɪ/ *n* гипофиз
**placenta** /pləˈsentə/ *n* плацента
**plague** /pleɪg/ *n* чума; *v* изводить, мучить
**plaque** /plæk/ *n* бляшка
**plenty** /ˈplentɪ/ *n* множество
**pleura** /ˈplʊərə / *n* плевра
**pleural rub** /ˈplʊərəl rʌb/ шум трения плевры
**pleurisy** /ˈplʊərəsɪ/ *n* плеврит, воспаление плевры
**pneumonia** /njʊˈməʊnɪə/ *n* пневмония
**pneumothorax** /ˌnjʊməʊˈθɔːræks/ *n* пневмоторакс *(наличие воздуха или газа в плевральной полости)*
**point** /pɔɪnt/ *v*
**poisoning** /ˈpɔɪzənɪŋ/ *n* отравление
**poisonous** /ˈpɔɪzənəs/ *adj* ядовитый
**polio(myelitis)** /ˌpəʊlɪə(maɪəˈlaɪtɪs)/ *n* полиомиелит
**pollen** /ˈpɔlən/ *n* пыльца
**pollutant** /pəˈlʊtənt/ *n* загрязняющий агент
**polyp** /ˈpɔlɪp/ *n* полип
**pons** /pɔnz/ *n* варолиев мост
**poor** /pʊə/ *adj* бедный; слабый, недостаточный
**population** /ˈpɔpjʊˈleɪʃən/ *n* население
**pore** /pɔː/ *n* пора
**pork** /pɔːk/ *n* свинина
**portal circulation** /ˈpɔːtəl ˌsɜːkjʊˈleɪʃən/ воротное кровообращение
**possess** /pəˈzes/ *v* обладать
**possibility** /ˌpɔsəˈbɪlɪtɪ/ *n* возможность
**possible** /ˈpɔsɪbl/ *adj* возможный
**postpone** /pəʊstˈpəʊn/ *v* откладывать
**potassium** /pəˈtæsɪəm/ *n* калий
**pouch** /paʊʧ/ *n анат.* карман, мешок
**powerful** /ˈpaʊəfəl/ *adj* мощный
**predispose** /ˌprɪdɪˈspəʊz/ *v* предрасполагать
**predisposition** /prɪdɪspəˈzɪʃən/ *n* предрасположенность
**pregnancy** /ˈpregnənsɪ/ *n* беременность
**pregnant** /ˈpregnənt/ *adj* беременная
**premedication** /ˌprɪmedɪˈkeɪʃən/ *n* премедикация, медикаментозная подготовка к операции

**pre-schooler** /ˈprɹskʰɬlɑ/ *n* дошкольник
**prescribe** /prlˈskralb/ *v* прописывать
**presence** /ˈprɛzqns/ *n* присутствие, наличие
**pressure** /ˈprɛʃq/ *n* давление
**prevent** /prlˈvɛnt/ *v* предотвращать
**preventable** /prlˈvɛntqbl/ *adj* предотвратимый
**prevention** /prlˈvɛnʃqn/ *n* профилактика
**previously** /ˈprɹvlqsll/ *adv* предварительно; ранее
**prion** /ˈpralqn/ *n* прион *(вирусоподобный агент, вызывающий заболевания нервной системы)*
**prior** /pralq/ **to** до, перед тем как
**probable** /ˈprʘbqbl/ *adj* вероятный
**probably** /ˈprʘbqbll/ *adv* вероятно
**procedure** /prɑˈsJGɑ/ *n* процедура
**process** /prɑuˈsɛs/ *v* обрабатывать
**produce** /prɑˈdjɬls/ *v* производить; вызывать
**productive** /prɑˈdʌktlv/ *adj* продуктивный, с выделением мокроты (*о кашле*)
**projection** /prɑˈGɛkʃqn/ *n* выступ, проекция
**promise** /ˈprʘmls/ *n* обещание; *v* обещать
**prone** /prɑun/ **to** *adj* предрасположенный *к чему-л.*
**pronounce** /prɑˈnaunts/ *v* произносить
**propel** /prɑˈpɛl/ *v* проталкивать вперёд
**proper** /ˈprʘpɑ/ *adj* соответствующий
**properly** /ˈprʘpɑll/ *adv* соответствующим образом
**prostatic adenoma** /prʘsˈtɤtlk ɤdlˈnɑumɑ / аденома простаты
**protect** /prɑˈtɛkt/ *v* защищать
**protozoa** /ˌprɑutɑˈzɑuɑ/ *n pl.* простейшие животные
**protrude** /prɑˈtrɬd/ *v* выпячиваться, выдаваться
**prove** /prɬv/ *v* доказывать
**provide** /prɑˈvald/ *v* обеспечивать
**provide** /prɑˈvald/ *v* обеспечивать
**psittacosis** /ˌslɪqˈkɑusls/ *n* пситтакоз, попугайная болезнь
**ptyalin** /ˈtalqlln/ *n* птиалин (*фермент слюны*)
**puberty** /ˈpjɬlbqtl/ *n* пубертат, период полового созревания
**pulmonary circulation** /ˈpʌlmɑnɑrl .sWkjuˈlɛlʃqn/ малый круг кровообращения
**pulse** /pʌls/ *n* пульс
**pulse oximeter** /pʌls ʘkˈslmltq/ пульсоксиметр
**pulse rate** /pʌls rɛlt/ частота пульса
**pump** /pʌmp/ *n* насос; *v* накачивать
**PUO** (**pyrexia of unknown origin)** лихорадка неизвестного происхождения
**pupil** /ˈpjɬplll/ *n* зрачок
**purpose** /ˈpɛːpqs/ *n* цель
**purulent** /ˈpjuqrulɑnt/ *adj* гнойный
**pus** /pʌs/ *n* гнойный
**push** /puʃ/ *v* толкать
**pyelonephritis** /ˌpallɑunɛfˈralqls/ пиелонефрит
**pyrexia** /palˈrɛksla/ *adj* лихорадка

**Q**

**question mark** /ˈkwɛsCɑn mRk/ вопросительный знак
**question tag** /ˈkwɛsCɑn tɤg/ «хвост» разделительного вопроса (типа *It's nice out, isn't it?*)
**quotation marks** /kwɑuˈtɛʃqn mRks/ кавычки
**quote** /kwɑut/ *n* цитата

**R**

**rabies** /ˈrɛlbJz/ *n* бешенство
**radiate** /ˈrɛldlɛlt/ *v* излучать; распространяться
**radioactive** /ˈrɛldlɑuˈɤktlv/ *adj* радиоактивный
**radiotherapy** /ˌrɛldlɑuˈTɛrɑpl/ *n* лучевая терапия
**range** /rɛlnG/ *n* ряд, диапазон
**rare** /rɛq/ *adj* редкий
**rash** /rɤʃ/ *n* сыпь
**raw** /rl/ *adj* сырой
**razor** /ˈrɛlzɑ/ *n* бритва
**reach** /rJC/ *v* достигать
**react** /rlˈɤkt/ *v* реагировать
**reason** /ˈrJzqn/ *n* причина
**recently** /ˈrJsqntll/ *adv* недавно
**receptor** /rlˈsɛptɑ/ *n* рецептор
**recognise** /ˈrɛkɑgnalz/ *n* узнавать
**recognition** /ˌrɛkɑgˈnlʃqn/ *n* узнавание
**recommend** /ˌrɛkɑˈmɛnd/ *v* рекомендовать
**record** /ˈrɛkɑd/ *n* запись
**recover** /rlˈkʌvɑ/ *v* выздоравливать
**recovery** /rlˈkʌvɑrl/ *n* выздоровление
**recovery area** /rlˈkʌvɑrl ˈɛCrlɑ/ место для восстановления (*после процедур*)
**rectal** /ˈrɛktql/ *adj* ректальный
**rectum** /ˈrɛktqm/ *n* прямая кишка
**recuperate** /rlˈkɬpɑrɛlt/ *v* поправляться, выздоравливать
**recurrent** /rlˈkʌrɑnt/ *adj* повторный, рецидивный
**reduce** /rlˈdjɬls/ *v* снижать
**reduction** /rlˈdʌkʃqn/ *n* снижение
**refer** /rlˈfW/ *v* обращаться, направлять
**reflux** /ˈrJflʌks/ *n* рефлюкс, обратный ток
**refraction** /rlˈfrɤkʃqn/ *n* рефракция, преломление
**refreshment** /rlˈfrɛʃmɑnt/ *n* восстановление сил; отдых
**refrigerate** /rlˈfrlGɑrɛlt/ *v* охлаждать
**refuse** /rlˈfjɬlz/ *v* отказывать
**regenerate** /rlˈGɛnɑrɛlt/ *v* регенерировать(ся)
**regular** /ˈrɛgjulɑ/ *adj* правильный; регулярный
**reinforce** /ˌrJlnˈfls/ *v* усиливать

**relate** /rɪ`leɪt/ *v* относиться; передавать чужую речь
**relatively** /`relətɪvlɪ/ *adv* относительно
**relay** /rɪ`leɪ/ *v* передавать, транслировать
**release** /rɪ`liːs/ *v* высвобождать, выделять
**relevant** /`reləvənt/ *adj* релевантый, значимый
**relief** /rɪ`liːf/ *n* облегчение
**relieve** /rɪ`liːv/ *v* облегчать
**rely** /rɪ`laɪ/ **on** полагаться на *что-л.*
**remain** /rɪ`meɪn/ *v* оставаться
**remind** /rɪ`maɪnd/ *v* напоминать
**remove** /rɪ`muːv/ *v* удалять
**replace** /rɪ`pleɪs/ *v* замещать
**replacement therapy** /rɪ`pleɪsmənt `θerəpɪ/ заместительная терапия
**reported** /rɪ`pɔːtɪd/ *adj* косвенный (*о речи*)
**reproduce** /ˌriːprə`djuːs/ *v* вопроизводить
**reproduction** /riːprə`dʌkʃən/ *n* воспроизводство
**request** /rɪ`kwest / *n* просьба
**require** /rɪ`kwaɪə/ *v* требовать
**requirement** /rɪ`kwaɪəmənt/ *n* требование
**rerouting** /rɪ`ruːtɪŋ/ *n* изменение направления
**research** /rɪ`sɜːtʃ/ *n* научное исследование
**resemble** /rɪ`zembl/ *v* походить
**resist** /rɪ`zɪst/ *v* сопротивляться
**resistance** /rɪ`zɪstəns/ *n* сопротивляемость, устойчивость
**respiration** /ˌrespɪ`reɪʃən/ *n* дыхание
**respiratory** /rɪ`spɪrətərɪ/ *adj* дыхательный
**respiratory rate** / rɪ`spɪrətərɪ reɪt/ частота дыхания
**response** /rɪ`spɔns/ *n* ответ, реакция
**responsibility** /rɪˌspɒnsə`bɪlɪtɪ/ *n* ответственность
**responsible** /rɪ`spɒnsɪbl/ *adj* ответственный
**restlessness** /`restləsnəs/ *n* беспокойство
**result** /rɪ`zʌlt/ **in** приводить к *чему-л.*
**retina** /`retɪnə/ *n* сетчатка
**retinal detachment** /`retɪnəl dɪ`tʃmənt/ отслоение сетчатки
**retinopathy** /ˌretɪ`nɔpəθɪ/ *n* ретинопатия
**retirement** /rɪ`taɪəmənt/ *n* отставка, пенсия
**retrograde pyelography** /`retrəgreɪd paɪə`lɔgrəfɪ/ ретроградная (восходящая) пиелография
**reveal** /rɪ`vɪl/ *v* выявлять
**reverse** /rɪ`vɜːs/ *adj* противоположный, *v* разворачиваться в противоположном направлении
**review** /rɪ`vjuː/ *v* обозревать
**rhinitis** /raɪ`naɪtɪs/ *n* ринит (*(воспаление слизистой оболочки полости носа)*
**rhythm** /rɪðm/ *n* ритм
**rickets** /`rɪkɪts/ *n* рахит
**rid** /rɪd/; **get rid of** освободиться от *чего-л.*
**rigid** /`rɪdʒɪd/ *adj* жёсткий, твёрдый
**rigidity** /rɪ`dʒɪdɪtɪ/ *n* жёсткость, твёрдость
**rigor** /`rɪgə/ *n* озноб, дрожь
**rise** /raɪz/ *v* подниматься
**rubella** /ruː`belə/ *n* краснуха
**rubeola** /ruː`bɪə/ *n* корь
**rupture** /`rʌptʃə/ *n* разрыв
**rural** /`ruərəl/ *adj* деревенский

**S**

**sac** /sæk/ *n* мешок
**saliva** /sə`laɪvə/ *n* слюна
**salivary** /sə`laɪvərɪ/ *adj* слюнной
**salivation** /ˌsælɪ`veɪʃən/ *n* слюноотделение
**salmonella** /ˌsælmə`nelə/ *n* сальмонелла
**sample** /sɑmpl/ *n* пример, образец; *adj* примерный
**scale** /skeɪl/ *n* шкала
**scar** /skɑ/ *n* шрам; *v* рубцеваться
**species** /`spɪʃɪz/ *n* вид, род
**scarring** /`skɑrɪŋ/ *n* рубцевание
**science** /saɪəns/ *n* наука
**scientific** /ˌsaɪən`tɪfɪk/ *adj* научный
**scratch** /skrætʃ/ *v* царапать, чесать
**screen** /skrɪn/ *v* проводить регулярное медицинское обследование
**seafood** /`sɪfʊd/ *n* морепродукты
**seatbelt** /`sɪtbelt/ *n* ремень безопасности
**secondary** /`sekəndərɪ/ *adj* вторичный
**secrete** /sɪ`krɪt/ *v* выделять, секретировать
**secretion** /sɪ`krɪʃən/ *n* секрет, секреция
**seek** /sɪk/ *v irreg.* искать
**seizure** /`sɪʒə/ *n* припадок, приступ
**semen** /`sɪmən/ *n* семя, сперма
**semilunar** /ˌsemɪ`luːnə/ *adj* полулунный
**sensation** /sen`seɪʃən/ *n* ощущение
**sense organ** /sens `ɔgən/ орган чувств
**sensory** /`sensərɪ/ *adj* сенсорный, чувствительный
**separate** /`sepərət/ *adj* отдельный
**serum** /`sɪərəm/ *n* сыворотка
**severe** /sɪ`vɪə/ *adj* тяжелый
**sex** /seks / *n* пол; *adj* половой
**sexually transmitted infections (STI)** /`sekʃuəlɪ trænz`mɪtɪd ɪn`fekʃənz/ инфекции, передающиеся половым путем (ИППП)
**shaft** /ʃɑft/ *n* стержень, штифт
**shake** /ʃeɪk/ *v irreg.* трясти, дрожать
**share** /ʃeə/ *v* делить(ся)
**shiver** /`ʃɪvə/ *v* дрожать
**shooting** /`ʃʌtɪŋ/ *adj* стрляющий *(о боли)*
**short of breath** испытывающий одышку
**shout** /ʃaut/ *n* кричать
**shut** /ʃʌt/ *v irreg.* закрывать
**shy** /ʃaɪ/ *adj* робкий

**sick** /sɪk/ *adj* больной
**sick leave** /ˈsɪkˌliːv/ *n* больничный лист
**side effect** /saɪd ɪˈfɛkt/ побочный эффект
**sigh** /saɪ/ *v* вздыхать
**sight** /saɪt/ *n* зрение
**sigmoid colon** /ˈsɪgmɔɪd ˈkəʊlən/ сигмовидная ободочная кшика
**sign** /saɪn/ *n* знак; признак болезни *(объективный)*
**significant** /sɪgˈnɪfɪkənt/ *adj* значительный
**signify** /ˈsɪgnɪfaɪ/ *v* означать
**silent** /ˈsaɪlənt/ *adj* тихий; молчаливый
**since** /sɪns/ *prep* с (*какого-то времени*); так как
**site** /saɪt/ *n* место
**size** /saɪz/ *n* размер
**slash** /slæʃ/ *n* косая черта
**slight** /slaɪt/ *adj* незначительный; слабовыраженный
**small intestine** /smɔːl ɪnˈtɛstɪn/ тонкий кишечник
**smallpox** /ˈsmɔːlpɒks/ *n* оспа
**smell** /smɛl/ *v* пахнуть, нюхать
**smooth** /smuːð/ *adj* гладкий, ровный
**sneeze** /snɪz/ *v* чихать
**sneezing** /ˈsnɪzɪŋ/ *n* чихание
**sober** /ˈsəʊbə/ *adj* трезвый
**somatic nervous system** /səʊˈmætɪk ˈnɜːvəs ˈsɪstəm/ соматическая нервная система
**sophisticated** /səˈfɪstɪkeɪtɪd/ *adj* сложно устроенный
**soul** /səʊl/ *n* душа
**sound** /saʊnd/ *adj* здоровый, крепкий
**source** /sɔːs/ *n* источник
**space** /speɪs/ *n* пространство, космос
**species** /ˈspiːʃiːz/ *n* вид, род
**specific gravity** /spəˈsɪfɪk ˈgrævɪtɪ/ плотность
**specimen** /ˈspɛsɪmɪn/ *n* образец; проба
**spermatozoon** /ˌspɜːməˈzəʊɒn/ *n* сперматозоид
**sphincter** /ˈsfɪŋktə/ *n* сфинктер
**sphygmomanometer** /ˈsfɪgməˈnɒmɪtə/ *n* сфигмоманометр, манометр *(прибор для измерения кровяного давления)*
**spider-like veins** /ˈspaɪdə laɪk veɪnz/ сосудистые звёздочки
**spinal column** /ˈspaɪnəl ˈkɒləm/ позвоночный столб
**spinal cord** /ˈspaɪnəl kɔːd/ спинной мозг
**spitting** /ˈspɪtɪŋ/ *n* отхаркивание
**spleen** /splɪn/ *n* селезенка
**split apart** /splɪt əˈpɑːt/ расколоть(ся)
**spoil** /spɔɪl/ *n* испортить
**spread** /spred/ *v irreg.* распространяться
**spring** /sprɪŋ/ *n* пружина
**sputum** /ˈspjuːtəm/ *n* мокрота
**squeeze** /skwiːz/ *v* сжимать, выдавливать
**squint** /skwɪnt/ =**strabismus** /strəˈblɪzməs/ *n* косоглазие
**squirt** /skwɜːt/ *n* струя; *v* бить струёй
**staff** /stɑːf/ *n* персонал
**stairs** /steəz/ *n pl.* ступени, лестница
**stand for** обозначать
**statins** /ˈstætɪnz/ *n pl.* статины (*препараты, снижающие холестерин*)
**steady** /ˈstedɪ/ *adj* устойчивый
**stenosis** /stəˈnəʊsɪs/ *n* стеноз *(сужение трубчатого органа)*
**stimulate** /ˈstɪmjʊleɪt/ *v* стимулировать
**stimulus** (*pl.* **stimuli**) /ˈstɪmjʊləs (ˈstɪmjʊlaɪ)/ *n* стимул
**stimulation** /ˌstɪmjʊˈleɪʃən/ *n* стимуляция
**stockpiling** /ˈstɔkpaɪlɪŋ/ *n* накопление запасов
**stomach** /ˈstʌmək/ *n* желудок
**stool** /stʊl/ *n* стул
**storage** /ˈstɔːrɪdʒ/ *n* хранение
**store** /stɔː/ *n* запас; *v* хранить
**strain** /streɪn/ *n* натяжение
**strand** /strænd/ *n* жила, прядь
**stranger** /ˈstreɪnʤə/ *n* незнакомец; посторонний человек
**streak** /strɪk/ *v* полоска, прожилка
**strength** /streŋθ/ *n* сила, эффективность
**strengthen** /ˈstɛŋθən/ *v* усиливать, укреплять
**strenuous** /ˈstrenjuəs/ *adj* энергичный, усердный
**strive** /straɪv/ *v*
**stroke** /strəʊk/ *n* инсульт
**stuffy nose** /ˈstʌfɪ nəʊz/ заложенный нос
**subcutaneous fat** /səbkjʊˈteɪnɪəs fæt/ подкожный жир
**subfebrile** /səbˈfjbraɪl/ *adj* слегка повышенный (*о температуре*)
**succeed** /səkˈsiːd/ *v* достигать цели
**successfully** /səkˈsesfʊlɪ/ *adv* успешно
**sue** /sjuː/ *v* преследовать в судебном порядке
**suffer** /ˈsʌfə/ *v* страдать
**sufficient** /səˈfɪʃənt/ *adj* достаточный
**suggest** /səˈʤest/ *v* предложить
**summarise** /ˈsʌmərəɪz/ *v* резюмировать
**sunflower** /ˈsʌnflaʊə/ *n* подсолнечник
**superficial** /ˌsjuːpəˈfɪʃəl/ *n* поверхностный
**superior** /sjuˈpɪərɪə/ *adj* верхний
**supine** /ˈsjuːpaɪn/ *adj* лежащий на спине
**suppress** /səˈpres/ *v* подавлять
**surface** /ˈsɜːfɪs/ *n* поверхность
**surgeon** /ˈsɜːʤən/ *n* хирург
**surgery** /ˈsɜːʤərɪ/ *n* хирургия; кабинет врача; приемные часы

**surround** /sq`raund/ *v* окружать
**survive** /sq`valv/ *v* выживать
**susceptible** /sq`septIbl/ *adj* восприимчивый
**suspect** /sq`spekt/ *v* подозревать
**sustain** /sq`stein/ *v* поддерживать
**swab** /swOb/ *n* тампон; *v* смазывать
**swallow** /`swQlqu/ *v* глотать
**sweat gland** /swet glxnd/ потовая железа
**sweating** /`swetIN/ *n* потение
**swell** /swel/ *v* отекать
**swelling** /`swellN/ *n* отек
**symptom** /`sImptqm/ *n* симптом, признак болезни *(субъективный)*
**syphilis** /`sIfIIs/ *n* сифилис
**systemic circulation** /sIs`temIk ,sWkju`leISqn/ большой круг кровообращения
**systole** /`sIstqll/ *n* систола

**T**

**tactile** /`txktall/ *adj* тактильный
**tap** /txp/ *n* кран; *v* постукивать
**tarry** /`tRrl/ *adj* дегтеобразный
**taste** /teIst/ *n* вкус; *v* ощущать вкус
**taste bud** /teIst bAd/ вкусовой сосочек языка
**tear** /tIq/ *n* слеза
**temporal** /`tempqrql/ *adj* височный
**tender** /`tendq/ *adj* болезненный
**tenderness** /`tendqnIs/ *n* болезненность
**tension** /`tenSqn/ *n* напряжение
**term** /tWm/ *n* термин; *v* давать название
**terminate** /`tWmInelt/ *v* завершать
**terrible** /`terIbl/ *adj* ужасный
**testicle** /`testIkl/ *n* = **testis** /`testIs/ *(pl.* **testes** /`testJz/*)* *n* яичко
**testosterone** /te`stOstqrqun/ *n* тестостерон
**tetanus** /`tetqnqs/ *n* столбняк
**therapist** /`Terqpist/ *n* психотерапевт; узкий специалист
**thereafter** /,Teq`rRftq/ *adv* впоследствии
**therefore** /`DeqfL/ *adv* следовательно
**thick** /TIk/ *adj* толстый; густой
**thoracic** /Tq`rxsIk/ *adj* грудной
**thorough** /`TArq/ *adj* тщательный
**threat** /Tret/ *n* угроза
**threaten** /`Tretqn/ *v* угрожать
**thrive** /TraIv/ *v* процветать
**throat** /Trqut/ *n* горло
**through** /TrH/ *prep* через, сквозь
**thymus** /`TaImqs/ *n* вилочковая железа
**thyroid** /`TaIrOId/ *n* щитовидная железа
**thyroxine** /TaI`rOksIn/ *n* тироксин
**tighten** /`taItqn/ *v* сжимать
**tightness** /`taItnqs/ *n* сжатость
**tinnitus** /`tInItqs/ *n* шум в ушах
**tiny** /`taInI/ *adj* маленький, крошечный
**tip** /tIp/ *n* полезный совет
**tire** /taIq/ *v* утомлять, уставать
**tissue** /`tIsjH/, /`tISH/ *n* ткань
**tolerate** /`tQlqreIt/ *v* переносить, выносить
**tongue** /tAN/ *n* язык
**total artificial heart** /`tqutql ,RtI`flSql hRt/ полностью искусственное сердце
**touch** /tAC/ *v* касаться
**toxoid** /`tOksOId/ *n* анатоксин (*обезвреженный бактериальный токсин*)
**trace** /treIs/ *n* след
**transmissible** /trxnz`mIsIbl/ *adj* заразный, инфекционный
**transmission** /trxnz`mISqn/ *n* перенос, передача
**transmit** /trxnz`mIt/ *v* передавать
**trauma** /`trLmq/ *n* травма
**treat** /trJt/ *v* лечить
**treatable** /`trJtqbl/ *adj* поддающийся лечению
**treatment** /`trJtmqnt/ *n* лечение
**trick** обманывать
**tricuspid** /traI`kAspId/ *adj* трехстворчатый
**trigger** /`trIgq/ *n* триггер; *v* запускать
**triiodothyronine** /traI,aIqdqu`TaIrqnJn/ *n* трийодтиронин
**tuberculosis** /tju,bE:kju`lqusIs/ *n* туберкулёз
**tummy** /`tAmI/ *n* животик (*детское*)
**tumour** /`tjHmq/ *n* опухоль
**tunica adventitia** /`tjunIkq ,advqn`tiSq/ наружная оболочка
**tunica intima** /`tjunIkq `IntImq/ внутренняя оболочка
**tunica media** /`tjunIkq `mJdIq/ средняя оболочка
**turbidity** /tW`bIdItI/ *n* помутнение
**type I diabetes** /taIp wAn ,daIq`bJtJz/ диабет I типа
**type II diabetes** /taIp tu ,daIq`bJtJz/ диабет II типа
**typhoid** /`taIfOId/ *n* брюшной тиф

**U**

**ulcer** /`Alsq/ *n* язва
**ulcerative colitis** /`AlsqrqtIv kq`laItIs/ язвенный колит
**ultimately** /`AltImqtll/ *n* в конечном счёте
**ultrasound** /`Altrqsaund/ *n* ультразвук
**ultrasound investigation** /`Altrqsaund In,vestI`geISqn/ ультразвуковое исследование
**umbilical cord** /Am`bIlIkql kLd/ пуповина
**uncertainty** /An`sWtqntl/ *n* неуверенность
**unconsciousness** /An`kOnSqsnqs/ *n* бессознательное состояние
**undercooked** /Andq`kukt/ *adj* недоготовленный (*о еде*)
**underlying problem** /Andq`laIIN `prOblqm/ ключевая проблема

**undesirable** /"ʌndɪ`zaɪqrqbl/ *adj* нежелательный
**unintentional** /ˌʌnɪn`tɛnʃqnql/ *adj* нечаянный
**unless** /ʌn`lɛs/ *conj* если не
**unlikely** /ʌn`laɪklɪ/ *n* вряд ли, маловероятно
**upper respiratory tract** /`ʌpq rq`splrqtqrl trχkt/ верхние дыхательные пути
**upset** /ʌp`sɛt/ *v* нарушать (*пищеварение*), *adj* расстроенный (*о желудке*)
**upstairs** /ʌp`stɛqz/ *adv* наверху, на втором этаже
**urgent** /`ɛ:ɢqnt/ *adj* срочный
**urinalysis** /juqrɪ`nχllsɪs/ *n* анализ мочи
**urticaria** /ɛ:tɪ`kɛriq/ *n* крапивница

**V**

**vaccination** /ˌvχksɪ`nɛɪʃqn/ *n* введение вакцины
**valve** /vχlv/ *n* клапан
**varicella** /vχrɪ`sɛlq/ *n* ветряная оспа
**vary** /`vɛqrɪ/ *v* изменяться
**vector-borne** /`vɛktqbɒn/ **diseases** трансмиссивные заболевания (*переносимые биологическими объектами*)
**vegetative state** /`vɛɢɪtqtɪv stɛɪt/ вегетативное состояние
**vena cava** /`vjnq `kɛɪvq/ полая вена
**ventricle** /`vɛntrɪkl/ *n* желудочек
**vertigo** /`vɯtɪgqu/ *n* головокружение
**vessel** /`vɛsql/ *n* сосуд
**vestibular** /vɛ`stɪbjulq/ *adj* вестибулярный
**victim** /`vɪktɪm/ *n* жертва, пострадавший
**villus**, *pl.* **villi** /`vɪlqs (`vɪlaɪ)/ *n* ворсинка
**violate** /`vaɪqlɛɪt/ *v* нарушать
**vision** /`vɪʒqn/ *n* зрение
**visual** /`vɪʒjuql/ *adj* зрительный
**visual acuity** /`vɪʒjuql q`kjɬɪltɪ/ острота зрения
**vital** /`vaɪtql/ *adj* жизненно важный
**vitreous humour** /`vɪtrɪqs `hjɬmq/ *v* стекловидное тело
**vocal resonance** /`vqukql `rɛznqns/ голосовой резонанс
**voice box** /vɔɪs bɔks/ *n* гортань
**volume** /`vɑljɬm/ *n* объём
**voluntary** /`vɔlqntqrɪ/ *adj* произвольный
**vomiting** /`vɑmɪtɪŋ/ *n* рвота
**vulnerable** /`vʌlnqrqbl/ *adj* уязвимый

**W**

**ward** /wɒd/ *n* палата
**ward round** /wɒd raund/ обход палат
**warn** /wɒn/ *v* предостерегать
**waste (product)** /wɛɪst (`prɑdʌkt)/ *n* продукты выделения
**waste** /wɛɪst/ *v* изнурять
**watery eyes** /`wɔtqrɪ aɪz/ слезящиеся глаза
**wave** /wɛɪv/ *n* волна; зубец (*ЭКГ*)
**weigh** /wɛɪ/ *v* весить; взвешивать
**weight** /wɛɪt/ *n* вес
**wheat** /wjt/ *n* пшеница
**wheeze** /wjz/ *v* дышать с присвистом
**wheezing** /`wjzɪŋ/ *n* дыхание с присвистом
**whistling** /`wɪslɪŋ/ *n* свист
**white matter** /wait `mχtq/ белое вещество (*мозга*)
**whooping cough** /`ɦɬpɪŋ kɔf/ коклюш
**windpipe** /`wɪndpaɪp/ *n* трахея
**wire** /wɛɪt/ *n* проволока, провод
**wisdom** /`wɪzdqm/ *n* мудрость
**wonder** /`wʌndq/ *n* чудо; *v* хотеть знать, интересоваться
**worm** /wɯm/ *n* червь
**worn** /wɒn/ *adj* изношенный; изнуренный
**worry** /`wʌrɪ/ *v* переживать
**worsen** /`wɯsqn/ *v* ухудшать
**wrinkled** /`rɪŋkld/ *adj* морщинистый
**wrong** /rɔŋ/ *adj* неправильный

**Y**

**yellow fever** /`jɛlqu `fjvq/ *n* желтая лихорадка (*острое геморрагическое трансмиссивное заболевание*)

# Appendix 1

## Таблица наиболее употребительных неправильных глаголов английского языка

| № | Перевод | I форма<br>Infinitive | II форма<br>Past Simple Active | III форма<br>Past Participle |
|---|---|---|---|---|
| 1 | быть; находиться | be [bJ] | was [wOz]<br>were [wW] | been [bJn] |
| 2 | носить; рождать (born) | bear [bFq] | bore [bL] | borne [bLn]<br>born [bLn] |
| 3 | становиться, делаться | become [bl'kAm] | became [bl'kel m] | become [bl'kAm] |
| 4 | начинать(ся); приступать (к) | begin [bl'gln] | began [bl'gxn] | begun [bl'gAn] |
| 5 | гнуть(ся), сгибать(ся) | bend [bend] | bent [bent] | bent [bent] |
| 6 | держать пари, спорить | bet [bet] | bet [bet] | bet [bet] |
| 7 | кусать(ся) | bite [balt] | bit [blt] | bitten [bltn] |
| 8 | дуть, раздувать | blow [blou] | blew [blH] | blown [bloun] |
| 9 | ломать(ся) | break [brelk] | broke [brouk] | broken [broukn] |
| 10 | приносить, привозить | bring [brlN] | brought [brL t] | brought [brL t] |
| 11 | строить | build [blld] | built [bllt] | built [bllt] |
| 12 | жечь, обжигать; гореть | burn [bWn] | burnt [bWnt] | burnt[bWnt] |
| 13 | покупать | buy [bal] | bought [bL t] | bought [bL t] |
| 14 | ловить, поймать; схватить | catch [kxC] | caught [kL t] | caught [kL t] |
| 15 | выбирать; избирать | choose [CHz] | chose [Couz] | chosen ['Couzn] |
| 16 | приходить, приезжать | come [kAm] | came [kel m] | come[kAm] |
| 17 | стоить | cost [kOst] | cost [kOst] | cost [kOst] |
| 18 | резать; снижать | cut [kAt] | cut [kAt] | cut [kAt] |
| 19 | рыть(ся), копать(ся) | dig [dlg] | dug [dAg] | dug [dAg] |
| 20 | делать; вспом. глагол и др. | do [dH] | did [dld] | done [dAn] |
| 21 | тянуть; рисовать, чертить | draw [drL] | drew [drH] | drawn [drLn] |
| 22 | мечтать; видеть во сне | dream [drJm] | dreamt [drem t] | dreamt [drem t] |
| 23 | пить | drink [drlNk] | drank [drxNk] | drunk [drANk] |
| 24 | везти; вести (машину) | drive [dralv] | drove [drouv] | driven ['drlvn] |
| 25 | есть, питаться | eat [Jt] | ate [et] | eaten ['Jtn] |
| 26 | падать | fall [fL l] | fell [fel] | fallen ['fL ln] |
| 27 | кормить(ся) | feed [fJd] | fed [fed] | fed [fed] |
| 28 | чувствовать; ощущать | feel [fJl] | felt [felt] | felt [felt] |
| 29 | бороться | fight [falt] | fought [fL t] | fought [fL t] |
| 30 | находить, обнаруживать | find [falnd] | found [faund] | found [faund] |

| | | | | |
|---|---|---|---|---|
| 31 | лететь | fly [flal] | flew [flʜ] | flown [floun] |
| 32 | забывать, не помнить | forget [fq'gɛt] | forgot [fq'gOt] | forgotten [fq'gOtn] |
| 33 | прощать | forgive [fq'glv] | forgave [fq'gɛlv] | forgiven [fq'glvn] |
| 34 | замерзать; замораживать | freeze [frJz] | froze [frouz] | frozen [frouzn] |
| 35 | получать; приобретать; понимать | get [gɛt] | got [gOt] | got [gOt] |
| 36 | давать, передавать | give [glv] | gave [gɛlv] | given [glvn] |
| 37 | идти; ехать; уходить, уезжать | go [gou] | went [wɛnt] | gone [gOn] |
| 38 | расти; увеличиваться | grow [grou] | grew [grʜ] | grown [groun] |
| 39 | 1) висеть, вешать;<br>2) вешать (казнить) | hang [hχN] | 1) hung [hɅN]<br>2) hanged [hχNd] | 1) hung [hɅN]<br>2) hanged [hχNd] |
| 40 | иметь; быть должным | have [hχv] | had [hχd] | had [hχd] |
| 41 | слышать; слушать | hear [hlq] | heard [hWd] | heard [hWd] |
| 42 | прятать(ся); скрывать(ся) | hide [hald] | hid [hld] | hidden [hldn] |
| 43 | держать; владеть; вмещать | hold [hould] | held [hɛld] | held [hɛld] |
| 44 | ушибить, причинять боль | hurt [hWt] | hurt [hWt] | hurt [hWt] |
| 45 | содержать, хранить | keep [kJp] | kept [kɛpt] | kept [kɛpt] |
| 46 | знать | know [nou] | knew [njʜ] | known[noun] |
| 47 | класть, положить | lay [lɛl] | laid [lɛld] | laid [lɛld] |
| 48 | вести, руководить | lead [lJd] | led [lɛd] | led [lɛd] |
| 49 | учить(ся), изучать; узнавать | learn [lWn] | learnt [lWnt] | learnt [lWnt] |
| 50 | покидать, оставлять | leave [lJv] | left [lɛft] | left [lɛft] |
| 51 | позволять, разрешать | let [lɛt] | let [lɛt] | let [lɛt] |
| 52 | 1) лежать<br>2) лгать (прав. глагол) | lie [lal] | 1) lay [lɛl]<br>2) lied [lald] | 1) lain [lɛln]<br>2) lied [lald] |
| 53 | зажигать(ся), освещать(ся) | light [lalt] | lit [llt]] | lit [llt] |
| 54 | терять; проигрывать | lose [lʜz] | lost [lOst] | lost [lOst] |
| 55 | делать, производить | make [mɛlk] | made [mɛld] | made [mɛld] |
| 56 | значить | mean [mJn] | meant [mɛnt] | meant [mɛnt] |
| 57 | встречать(ся); знакомиться | meet [mJt] | met [mɛt] | met [mɛt] |
| 58 | платить | pay [pɛl] | paid [pɛld] | paid [pɛld] |
| 59 | класть, положить | put [put] | put [put] | put [put] |
| 60 | читать | read [rJd] | read [rɛd] | read [rɛd] |
| 61 | звонить | ring [rlN] | rang [rχN] | rung [rɅN] |
| 62 | подниматься; возрастать | rise [ralz] | rose [rouz] | risen [rlzn] |
| 63 | бежать; двигаться | run [rɅn] | ran [rχn] | run [rɅn] |
| 64 | говорить, сказать | say [sɛl] | said [sɛd] | said [sɛd] |
| 65 | видеть; понимать | see [sJ] | saw [sɬ] | seen [sJn] |

| | | | | |
|---|---|---|---|---|
| 66 | искать, разыскивать | seek [sJk] | sought [sLt] | sought [sLt] |
| 67 | продавать(ся) | sell [sɛl] | sold [sould] | sold [sould] |
| 68 | посылать, отправлять | send [sɛnd] | sent [sɛnt] | sent [sɛnt] |
| 69 | помещать, ставить | set [sɛt] | set [sɛt] | set[sɛt] |
| 70 | трясти(сь); качать | shake [Sɛlk] | shook [Suk] | shaken ['Sɛlkn] |
| 71 | стрелять; поражать | shoot [SHt] | shot [SOt] | shot [SOt] |
| 72 | показывать | show [Sou] | showed ['Soud] | shown [Soun] |
| 73 | закрывать(ся); перекрывать | shut [SAt] | shut [SAt] | shut [SAt] |
| 74 | петь | sing [slN] | sang [sXN] | sung [sAN] |
| 75 | тонуть; погружать(ся) | sink [slNk] | sank [sXNk] | sunk [sANk] |
| 76 | сидеть; заседать | sit [slt] | sat [sXt] | sat [sXt] |
| 77 | спать | sleep [slJp] | slept [slɛpt] | slept [slɛpt] |
| 78 | говорить, разговаривать | speak [spJk] | spoke [spouk] | spoken [spoukn] |
| 79 | тратить, расходовать | spend [spɛnd] | spent [spɛnt] | spent [spɛnt] |
| 80 | распространять (ся) | spread [spred] | spread [spred] | spread [spred] |
| 81 | стоять; ставить | stand [stXnd] | stood [stud] | stood [stud] |
| 82 | красть, воровать | steal [stJl] | stole [stoul] | stolen [stouln] |
| 83 | 1) ударять(ся); 2) бастовать | strike [stralk] | struck [strAk] | struck [strAk] |
| 84 | клясться; ругать(ся) | swear [swFq] | swore [swL] | sworn [swLn] |
| 85 | плыть, плавать | swim [swlm] | swam [swXm] | swum [swAm] |
| 86 | брать; принимать | take [tɛlk] | took [tuk] | taken [tɛlkn] |
| 87 | учить, преподавать | teach [tJC] | taught [tLt] | taught [tLt] |
| 88 | рвать(ся) | tear [tFq] | tore [tL] | torn [tLn] |
| 89 | говорить; рассказывать | tell [tɛl] | told [tould] | told [tould] |
| 90 | думать; полагать | think [TlNk] | thought [TLt] | thought [TLt] |
| 91 | бросать, кидать | throw [Trou] | threw [THt] | thrown [Troun] |
| 92 | понимать, постигать | understand ["Andq'stXnd] | understood ["Andq'stud] | understood ["Andq'stud] |
| 93 | носить (одежду) | wear [wFq] | wore [wL] | worn [wLn] |
| 94 | выиграть, победить | win [wln] | won [wAn] | won [wAn] |
| 95 | писать | write [ralt] | wrote [rout] | written ['rltn] |

## Appendix 2

# TABLE OF TENSES

### Active Voice

| ASPECT | | SIMPLE | CONTINUOUS | PERFECT | PERFECT CONTINUOUS |
|---|---|---|---|---|---|
| MEANING | | a common aspect | a process | priority | priotiry + process |
| | | *When?* | *At what time?* | *By what time?* | *Since what time? How long?* |
| Period of time | | *usually, often, always, seldom, every day (week, month, year)* | *now, at the moment, at present* | *ever, never, just, already, yet, by 3 p.m., lately, recently* | *since 3 p.m., for a long time, for a month* |
| Present | + | V, Vs | am / is + Ving / are | have / has + Ved, $V_3$ | have / has +been + Ved, $V_3$ |
| | ? | do / does … V | inversion | inversion | inversion |
| | - | do / does +not +V | am / is + not + Ving / are | have / has +not + Ved, $V_3$ | have / has + not + been + Ving |
| Period of time | | *yesterday, last week (month, year), long ago, in 2014* | *yesterday at 3 p.m., yesterday from 6 to 7, when you came, while* | *yesterday by 3 p.m., before something happened* | *since 3 p.m., for some time in the past* |
| Past | + | Ved, $V_2$ | was / were + Ving | had + Ved, $V_3$ | had + been + Ving |
| | ? | did … V | inversion | inversion | inversion |
| | - | did + not +V | was / were + not + Ving | had +not +Ved, $V_3$ | had + not + been + Ving |
| Period of time | | *tomorrow, nex wekk (month, year)* | *tomorrow at 3 p.m., tomorrow from 6 to 7, when you come, while* | *tomorrow by 3 p.m., by some time in the future* | *tomorrow by 3 p.m., by some time in the future* |
| Future | + | will + V | will + be + Ving | will + have + Ved, $V_3$ | will + have + been + Ving |
| | ? | inversion | inversion | inversion | inversion |
| | - | won't +V | won't + be + Ving | won't + have + Ved, $V_3$ | won't + have + been + Ving |

### Passive Voice

| ASPECT | | SIMPLE | CONTINUOUS | PERFECT |
|---|---|---|---|---|
| Present | + | am / is / are + Ved, $V_3$ | am / is / are + being + Ved, $V_3$ | have / has + been + Ved, $V_3$ |
| | ? | inversion | inversion | inversion |
| | - | am / is / are + not + Ved, $V_3$ | am / is / are + not + being + Ved, $V_3$ | have / has + not + been + Ved, $V_3$ |
| Past | + | was / were + Ved, $V_3$ | was / were + being + Ved, $V_3$ | had + been + Ved, $V_3$ |
| | ? | inversion | inversion | inversion |
| | - | was / were + not + Ved, $V_3$ | was / were + not + being + Ved, $V_3$ | had + not + been + Ved, $V_3$ |
| Future | + | will + be + Ved, $V_3$ | - | will + have + been + Ved, $V_3$ |
| | ? | inversion | | inversion |
| | - | won't + be + Ved, $V_3$ | | won't + have + been + Ved, $V_3$ |

## Appendix 3

# Verb Patterns

**Verbs + the '-ing' form**

| | | |
|---|---|---|
| admit | *признавать* | |
| adore | *обожать* | |
| appreciate | *высоко ценить* | |
| avoid | *избегать* | |
| consider | *рассматривать* | |
| delay | *задерживать* | |
| deny | *отрицать* | |
| detest | *ненавидеть* | |
| dislike | *не любить* | |
| enjoy | *очень любить* | |
| finish | *заканчивать* | |
| forgive | *прощать* | |
| can't help | *не могу не* | |
| can't stand | *терпеть не могу* | |
| imagine | *представлять себе* | |
| it involves | *это* | **doING** |
| keep | *подразумевает* | |
| like | *продолжать* | |
| look | *нравиться* | |
| forward to | *ждать с* | |
| love | *нетерпением* | |
| mind | *любить* | |
| miss | *возражать* | |
| postpone | *скучать* | |
| practise | *откладывать* | |
| prefer | *практиковаться* | |
| prevent | *предпочитать* | |
| risk | *не допустить* | |
| suggest | *рисковать* | |
| understand | *предлагать* | |
| | *понимать* | |

**Verbs + the '-ing' form**or **the *to*-infinitive**
(with no change in meaning)

| | | |
|---|---|---|
| begin | *начинать* | **TO** do/do**ING** |
| start | *начинать* | |
| continue | *продолжать* | |

**Verbs + the *to*-infinitive**

| | | |
|---|---|---|
| advise | *советовать* | |
| agree | *соглашаться* | |
| choose | *выбирать* | |
| decide | *решать* | |
| expect | *ожидать* | |
| hope | *надеяться* | |
| learn | *учиться* | |
| manage | *удаваться* | |
| offer | *предлагать* | **TO** do |
| promise | *обещать* | |
| refuse | *отказываться* | |
| seem | *казаться* | |
| teach | *обучать* | |
| want | *хотеть* | |
| would hate | *мне бы не хотелось* | |
| would like | *мне бы хотелось* | |
| would love | *мне бы очень хотелось* | |
| would prefer | *я бы предпочел* | |

**Verbs + the infinitive without *to***

| | | |
|---|---|---|
| let | *позволять* | **do** |
| make | *заставлять* | |
| help | *помогать* | |
| can | *уметь, мочь* | |
| could | *мог бы* | |
| may | *можно* | |
| might | *можно было бы* | |
| must | *должен* | |
| should | *следует* | |

**Verbs + the '-ing' form**or **the *to*-infinitive**
(with a change in meaning)

| | | |
|---|---|---|
| remember | *помнить* | **TO** do/do**ING** |
| forget | *не помнить* | |
| stop | *прекращать* | |
| try | *пытаться* | |

**Test Questions**

**Term 3**

1. Describe the structure of the respiratory system and its organs
2. Speak on the functions of the respiratory system
3. Characterize the process of respiration and its main stages.
4. Define infectious diseases and list the most common of them.
5. Describe the main symptoms of infectious diseases.
6. Explain how to treat and prevent infectious diseases.
7. Give a definition of flu and explain how it spreads.
8. List the main symptoms and complications of the flu.
9. Describe the main methods of treatment and prevention of flu.
10. Talk about the structure of the cardiovascular system and its main functions.
11. Describe types and structure of the blood vessels.
12. Characterize the main parts of the human circulatory system. Name the subsystems of the systemic circulation.
13. Talk about the anatomical structure of the heart.
14. Describe the main functions of the heart in the cardiovascular system.
15. List the main parameters of heart function and their role in diagnosis of heart diseases.
16. List the heart diseases you know. Give a definition of myocardial infarction and describe its main symptoms.
17. Describe the main causes and risk factors of myocardial infarction.
18. Describe the course and treatment of myocardial infarction.
19. Speak on the structure of the main organs of the gastrointestinal tract.
20. List and describe the main functions of the gastrointestinal tract.
21. Characterize the main processes taking place in the gastrointestinal tract.
22. Give a definition of gastritis and list its main causes.
23. Describe the most common causes of gastritis and methods of its diagnosis.
24. Explain how to treat gastritis. Comment on the prognosis for patients with gastritis.

**Term 4**

25. Describe the structure and list the main functions of the immune system.
26. Characterize different types of immunity.
27. Give a definition of immunisation. List and characterize the main types of vaccines.
28. Talk about different types of allergy.
29. List the main symptoms of allergy.
30. Define anaphylactic shock and describe its symptoms.
31. Describe the structure and the main functions of the endocrine system.
32. Explain how the main endocrine glands work.
33. Define diabetes mellitus and list its main causes.
34. Name and characterize the main disorders of the endocrine system.
35. Characterize different types of diabetes.
36. Speak on the symptoms and complications of diabetes.
37. Describe structure and physiology of the nervous system.
38. Talk about the main organs of the nervous system and their functions.
39. List and characterize the main disorders of the nervous system.
40. Describe the structure of the eye. List functions of the main parts of the eye.
41. Speak on the most common eye infections and disorders of the retina.
42. Name and characterize the most common errors of refraction.
43. Describe the structure of the ear and list its main functions.
44. Characterise the main ear diseases.
45. Explain what causes ear diseases and how they are treated.
46. List the main milestones in child development.
47. Characterize infants and toddlers.
48. Talk about grade-school children and adolescents.

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