Т. П. Щедрина

# Английский язык в медицине

Учебное пособие по английскому языку

English

МОСКВА

«Высшая школа»

ДЛЯ ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЙ

Т.П. Щедрина

# АНГЛИЙСКИЙ ЯЗЫК В МЕДИЦИНЕ

## ПРАКТИКА ЧТЕНИЯ И УСТНОЙ РЕЧИ

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Пособие состоит из двух разделов и англо-русского терминологического словаря. В первый раздел включены оригинальные тексты из научно-популярных медицинских изданий по проблемам гастроэнтерологии, урологии, гинекологии, неврологии, пульмонологии и др. Во втором разделе приведены образцы описания заболеваний и лекарственных препаратов. Первый раздел включает также упражнения на повторение грамматики, словообразования и на усвоение общенаучной и медицинской лексики.

Цель пособия – развитие навыка чтения специальной литературы и профессиональных бесед на английском языке.

Пособие является частью учебного комплекса, включающего книгу «Обсуждаем проблемы медицины» (автор – Т.П. Щедрина) и «Учебник английского языка для студентов медицинских вузов» (под редакцией Т.П. Щедриной).

*Для студентов медицинских вузов.*

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# ПРЕДИСЛОВИЕ

Предлагаемое учебное пособие предназначено для студентов и аспирантов высших медицинских учебных заведений, имеющих базовые знания по английскому языку. Оно может быть также использовано медицинскими работниками, изучающими английский язык с целью профессионального общения и получения информации из зарубежных изданий. Цель пособия – подготовить студентов к самостоятельной работе с оригинальной медицинской литературой и к устному общению на английском языке с коллегами по вопросам научной и практической работы, а также с пациентами.

Пособие построено на медицинских научно-популярных текстах, заимствованных из англо-американской прессы, а также на описаниях заболеваний и лекарственных препаратов из американских справочников для врачей. Тексты представлены без адаптации, однако в отдельных случаях они адаптированы или сокращены в учебных целях.

Тематика текстов, включенных в пособие, связана с основными областями медицины, при этом не ставилась цель дать описание всех их возможных направлений во всем объеме. Тексты рассматриваются как образцы некоторых видов медицинской литературы, имеющих свои лингвистические особенности, и как источник наиболее необходимой лексики для чтения и беседы по общим вопросам медицины. Информационно тексты создают условия для развития навыков и умений чтения и устного общения на медицинские темы на примере отдельных проблем из основных разделов медицины.

Упражнения пособия направлены на освоение общенаучной и общемедицинской лексики, грамматики, необходимой как для чтения научной литературы, так и для устного общения, а также обеспечивают практику устной речи на базе информации, полученной из письменных источников.

Пособие состоит из двух частей и словаря, включающего большую часть слов из текстов. Первая часть пособия состоит из 13

разделов, в которых научно-популярные тексты посвящены проблемам из области гастроэнтерологии, урологии, гинекологии, неврологии, пульмонологии, заболеваний опорно-двигательной и эндокринной систем, кожи, уха, горла и глазных болезней. Вторая часть пособия включает два раздела: тексты первого посвящены описаниям болезней, а второго – лекарственным препаратам, относящимся к областям медицины, представленным в первой части пособия.

Первая часть пособия включает научно-популярные тексты, предоставляющие более обширный лексический и грамматический материал, чем описания болезней и лекарств. Соответственно, в данном разделе к каждому тексту предлагаются серии упражнений на повторение ряда словообразовательных и грамматических моделей, освоение общелитературной, общенаучной и медицинской лексики, их отработку в медицинских контекстах. В упражнениях на словообразование отрабатываются те суффиксы и префиксы, которые главным образом и вызывают затруднения у медиков при чтении специальной литературы. Среди грамматических упражнений особо выделены упражнения на модели, свойственные научному стилю. Эти упражнения обеспечивают рассмотрение грамматических моделей в предложениях, заимствованных из статей в научных журналах, и способствуют развитию навыков чтения оригинальной научной литературы. Упражнения по другим разделам грамматики создают условия для их повторения и использования как при чтении, так и в устной речи по медицинской тематике. Рассматривается также лексика в словосочетаниях с предлогами, вызывающих у студентов известные трудности. Вся серия упражнений построена таким образом, что первоначально в процессе их выполнения обеспечивается понимание текста. Далее предоставляется возможность отработать и использовать ранее изученную грамматику с новой лексикой, выучить или повторить лексику, предлагаемую в тексте, использовать ее в беседе по тексту, а также в более широкой беседе по теме, поднятой в тексте, что требует также привлечения общенаучной и медицинской лексики из других разделов пособия и широкого использования индивидуального словарного запаса студента. Грамматические и лексические упражнения каж-

дого раздела предполагают постоянное повторение материала предыдущих разделов. В целом серии упражнений первой части пособия создают условия для развития навыков и умений чтения и устной речи, готовят студента к беседе по научным проблемам: описанию и обсуждению новых приборов, методов обследования пациента, содержания и хода научного исследования, внедрения достижений медицинской науки в практическую работу врача.

Вторая часть пособия предусматривает подготовку студента к чтению справочной литературы и беседе с коллегами и пациентами по вопросам практической работы. Тексты второй части отличаются однотипностью, небольшим разнообразием грамматических форм, ограниченной общелитературной и общенаучной лексикой, но вместе с тем высокой насыщенностью медицинской терминологией. В связи с этим здесь предлагается общий набор заданий для всех текстов. Задания предусматривают практику чтения и устной речи и сформулированы таким образом, чтобы обеспечить многократное использование медицинских терминов в различных ситуациях речевого общения, широкое привлечение различных грамматических моделей, а также общелитературной и общенаучной лексики, изученных в первой части.

Тематика и организация учебного пособия допускают несколько способов работы с ним. Возможно последовательное прохождение двух частей пособия, так как в первой части формируются знания, навыки и умения, необходимые для выполнения заданий обоих разделов второй части, а в первом разделе второй части формируется запас терминологии и навыки работы с медицинскими понятиями, необходимыми во втором разделе второй части пособия. Можно последовательно проходить по одному тексту из каждой части пособия, посвященному одной области медицины, при этом рассматривая тексты второй части как дополнительный материал к тексту первой части, расширяющий запас медицинской терминологии и обеспечивающий практику чтения и устной речи.

Автор выражает благодарность доценту кафедры иностранных языков Московского медицинского стоматологического института им. Н.А. Семашко Соломенцевой Л.Н. и коллективу

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*Автор*

## Grammar Terms Used in the Instructions to Exercises

**adjective** – прилагательное
**adverb** – наречие
**affirmative** – утвердительный
**article** – артикль
**attribute** – определение
**clause** – предложение в составе сложного предложения
**complex** – сложноподчиненное (предложение)
**context** – контекст
**definite** – определенный
**derived (word)** – производное (слово)
**genitive case** – родительный падеж
**gerund** – герундий
**infinitive** – инфинитив
**modifier** – определитель
**negative** – отрицательный
**noun** – существительное
**part of speech** – часть речи
**participle** – причастие
**predicate** – сказуемое
**prefix** – приставка
**preposition** – предлог
**sentence** – предложение
**stem** – основа слова
**subject** – подлежащее
**suffix** – суффикс
**tense form** – временна́я форма
**verb** – глагол
**word** – слово

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# Part I

# MEDICAL TECHNIQUES AND DEVICES

# Unit 1

*Text:* **Laser Cures Ulcers.**

*Grammar:*
1. The Active Voice: The Present Indefinite.
2. The Passive Voice: The Present Indefinite.
3. The Infinitive.
4. The Imperative Sentence.

*Word Formation:* The suffixes **-ance, -ist, -ment, -ty, -al, -ly**.

*Speech Patterns:* **Suggestions.**
– Let's ... Why don't we/you ... ?
A. – Yes, fine!
– Oh, what a good idea!
– That's a good idea!
B. – Oh, no!

## TEXT

## LASER CURES ULCERS

An alliance between doctors and physicists has led to a new method of treatment for ulcers by means of[1] a copper vapour laser,[2] says the chief of the Central Research Institute of Gastroenterology. The laser is no novelty in medicine. However it is not used in gastroenterology. We are using it[3] to stop haemorrhage, to remove polyps from the stomach and to treat ulcers. The first results show that it considerably speeds the cure of ulcers. A two-month period, for example, is reduced to two weeks.

### Notes

1 **by means of ...** – при помощи (чего-л.)
2 **a copper vapour laser** – медный газовый лазер
3 **we are using it** – мы используем его (временна́я форма Continuous подчеркивает постоянное применение описываемого метода)

### Vocabulary to the Text

**alliance** [ə'laɪəns] *n* союз
**chief** [tʃi:f] *n* глава, руководитель
**cure** [kjuə] *v* вылечить; *n* заживление, излечение
**gastroenterology** [ˌgæstrouˌentə'rɔlədʒɪ] *n* гастроэнтерология
**haemorrhage** ['hemərɪdʒ] *n* кровотечение
**however** [hau'evə] *cj* однако, тем не менее
**laser** ['leɪzə] *n* лазер
**lead** [li:d] **(led)** *v* вести, руководить, приводить (к)
**physicist** ['fɪzɪsɪst] *n* физик
**polyp** ['pɔlɪp] *n* полип
**reduce** [rɪ'dju:s] *v* сократить
**remove** [rɪ'mu:v] *v* удалить
**research** [rɪ'sə:tʃ] *n* исследование
**result** [rɪ'zʌlt] *n* результат
**speed** [spi:d] **(sped)** *v* ускорять
**stomach** ['stʌmək] *n* желудок
**treat** [tri:t] *v* лечить
**treatment** ['tri:tmənt] *n* лечение
**ulcer** ['ʌlsə] *n* язва

## COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the text. Read the text and point out:**

**a) the field of medicine in which laser is used;**

**b) the type of laser used for ulcer treatment.**

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-ance, -ist, -ment, -ty, -al, -ly* and point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

assistance, resistance, inheritance, acquaintance, disturbance; movement, settlement, statement, equipment, arrangement; philologist, scientist, tourist, novelist, pacifist; extremity, publicity, formality, equality, certainty, possibility; personal, mortal, formal, financial, clinical, functional; carefully, weakly, regularly, softly, rarely, daily, fortunately

**c. Reproduce the word combinations with *alliance, treat, treatment, central, considerably* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. a. Study the sentences below; pay attention to the ways the passive construction can be translated into Russian.**

1. A two-month period **is reduced** to two weeks.
2. However it **is not used in** gastroenterology.

Двухмесячный период *сокращен* до двух недель

Однако он *не используется* (его *не используют*) в гастроэнтерологии.

**b. Translate the following sentences into Russian using a dictionary; give several versions if possible.**

1. Such changes in the stomach are caused by stress.
2. These changes in the stomach are caused by stress.
3. Some cases of this disease are given by a doctor in the proceedings of the Royal Society of Medicine.
4. Smallpox is eradicated and there are very rare cases of the disease in the world.
5. Stomach energy is usually measured by means of this device.
6. Stomach energy is carefully measured by means of this device.
7. The flow of oxygen to the blood is reduced due to the heart defect.
8. No specific therapy is used for this disease.
9. All the trials are undertaken with plasma from convalescents.
10. The effectiveness of the method is not established.
11. Only aspirin is used in such cases.

**3. a. Study the two ways of translating the infinitives into Russian in the sentence below.**

We are using it (для чего? с какой целью?) **to stop** haemorrhage, **to remove** polyps from the stomach and **to treat** ulcers.

Мы используем его для того, *чтобы останавливать* кровотечение, *удалять* полипы из желудка, *лечить* язвы.

Мы используем его *для остановки* кровотечения, *удаления* полипов из желудка, *лечения* язв.

**b. Translate the following sentences into Russian: choose the most suitable way of translation suggested in (a) or give two versions of translation if possible.**

1. For two hours the heart generates enough energy to lift a weight of 65 tons one foot into air.
2. Many more muscles are required to frown than to smile.
3. Take some warm drink to induce sleep if you suffer from sleeplessness.

4. To attain the goal of a level of health that will enable every individual to lead a socially productive life, the Government has formulated three categories of objectives, namely health status, health care delivery, quality of life.
5. To convince myself of the relevance of our choice, I need only refer to the concrete achievements which I have seen for myself.
6. To demonstrate the value of a preventive method it is important to select areas for action where the beneficial effects appear fairly soon and to initiate systemic research and experiments over a longer period.
7. The medical training programme is intended to produce community physicians who are able to take the leading role in the delivery of primary health care at district level.

**4. Find in the text the word combinations below and justify the use or absence of articles proceeding from the context.**

an alliance between doctors and physicists, a new method, a copper vapour laser, the laser, the cure of ulcers, the first results, a two-month period

**5. Point out the predicates in the text; justify the use of Present Tense forms.**

**6. Study the models and use the verbs in brackets in suitable forms to complete the sentences; translate the sentences into Russian.**

**Models:** I. Students usually **ask** a lot of questions after lectures.
This student usually **asks** a lot of questions.

II. The question **is asked** and I must answer it.
A lot of questions **are** usually **asked** after his lectures.

1. An alliance between doctors and physicists usually (to lead) to a discovery useful for medical practice.
2. Doctors (to use) laser in different fields of medicine.
3. Sometimes ulcers (to treat) surgically.
4. The period of treatment (to reduce) due to a laser method.
5. Laser (to use) in gastroenterology now.
6. The results of the experiment (to show) the effectiveness of the new method.
7. The first results of the experiment (to show) the possibility to speed the cure of ulcers.

8. Laser treatment (to speed) the cure of ulcers.
9. Haemorrhage (to stop) due to the use of laser.
10. Polyps (to remove) surgically.

**7. Study the models and say that one does not do the following or the following is not done.**

**Models:** I. Usually students **do not ask** questions before lectures.
This student **does not ask** questions.
II. This question **is not asked** after the lecture but before it.
Questions **are not asked** during lectures.

1. Doctors usually use this device in gastroenterology.
2. The doctor wants to use laser to stop haemorrhage.
3. The new method speeds the cure of ulcers.
4. Your polyp is removed by means of laser.
5. Polyps are often removed by means of laser.
6. Ulcers are often treated surgically.
7. The first results show the effectiveness of the new treatment technique.
8. The period of treatment is reduced to two weeks.
9. An alliance between doctors and physicists always leads to a discovery.
10. Ulcers are often treated by means of laser.

**8. Study the models to do the tasks below.**

**Models:** I. **Do** students **ask** many questions after lectures?
**Does** this student **ask** many questions?
II. Is a question **asked?**
**Are** many questions **asked** after his lectures?

**a. Ask**

- if an alliance between doctors and physicists sometimes leads to a discovery;
- if doctors use laser in gastroenterology;
- if doctors use laser to treat ulcers;
- if ulcers are always treated surgically;
- if ulcers are often treated by means of laser;
- if laser is used to stop haemorrhage;
- if laser is used to remove polyps from the stomach;

– if laser methods speed the cure of ulcers;
– if laser technique reduces the period of treatment

**b. Revise the text and make up simple sentences to answer the questions in (a).**

**9. Answer the following questions.**

1. Do you want to specialize in gastroenterology? Which of you wants to specialize in gastroenterology?
2. Do you want to learn to use laser in your practical work? Which of your classmates wants to learn to use laser in practical work?
3. Do you know how polyps are removed?
4. Do you know any methods speeding the cure of ulcers? What methods do you know?

**10. a. Study the model. Ask your classmates to do the following and explain why you want them to do that.**

**Model:** Translate the text with a dictionary, please! It is very difficult.

*to stop:* talking, asking questions, reading, etc.
*to use:* your pen, your textbook, etc.
*to show:* the recently published textbook to you, the article on laser treatment, how to stop haemorrhage

**b. Ask your classmates not to do what is mentioned in (a); explain why you do not want them to do that.**

**Model:** Don't read this text aloud, please. Everybody here knows what it is about.

**c. Supposing you are a doctor; ask your colleague to do/not to do what is mentioned in the columns below; explain why you ask your colleague to do/not to do that.**

| | | |
|---|---|---|
| Show | this ulcer | by means of laser |
| Use | this method | to them |
| Treat | the results of the experiment | to treat such diseases |
| Remove | laser | to the chief of the Institute |
| Reduce | the period of treatment | to stop haemorrhage |
| Stop | the polyp | to remove this polyp |
| | haemorrhage | to treat ulcers |
| | | to two weeks |

**11. a. Make up short dialogues: you are suggesting something to your classmate; your classmate either accepts your idea or refuses to do it.**

**Models:**

| | |
|---|---|
| I. – Let's go to the country! | – Давайте поедем за город! |
| – That's a good idea!/Oh, what a good idea!/Oh, no! It is raining. | – Прекрасная идея!/О, какая прекрасная мысль!/О, нет! Дождь идет. |
| II. – Why don't we/you have a picnic on Sunday? | – Почему бы нам/вам не организовать пикник в воскресенье? |
| – Yes, fine!/Oh, what a good idea!/That's a good idea!/ Oh, no! It is so rainy now. | – Да, прекрасно!/О, какая хорошая мысль!/Прекрасная мысль! /О, нет! Сейчас дождливая погода. |

**b. Suppose you work in a gastroenterology department as a doctor. Make suggestions to your colleagues using the words in the columns in Ex. 10 (c). Explain why you think it is worth doing.**

**12. Revise the text and give the English for the following Russian words and word combinations (pay attention to prepositions). Make up sentences of your own with them.**

привести к чему-л., новый метод лечения для, при помощи чего-л., новшество в медицине, использовать лазер в гастроэнтерологии, используется в гастроэнтерологии, остановить кровотечение, удалить полип из желудка, лечить язву, первые результаты показывают, ускорить заживление язв, сократить до двух недель, однако

**13. Translate the following sentences into English.**

1. Сотрудничество врачей и физиков обычно приводит к разработке новых методов лечения.
2. Новый метод лечения ускоряет заживление язв в желудке.
3. Врачи используют лазер в различных областях медицины.
4. Лазер теперь используется в гастроэнтерологии.
5. Врачи не пользуются такими методами лечения.
6. Этот врач не знает таких методов лечения.
7. Врач не хочет сокращать период лечения.
8. Врачи не любят такие методы лечения.
9. Лазер часто используют для лечения таких заболеваний.
10. Лазер часто используют для остановки кровотечения.
11. Эти методы не используются в гастроэнтерологии.
12. Лазер не часто используют для лечения таких заболеваний.
13. Покажите мне ваш новый метод!
14. Не лечите язвы такими методами!

15. Удалите этот полип, пожалуйста!
16. Не пользуйтесь методами, которые вы плохо знаете!
17. Вы используете лазер для лечения таких заболеваний?
18. Он хочет изучить наш метод лечения?
19. Период лечения сокращен?
20. Лазер используется в этой области медицины?
21. Результаты эксперимента обсуждены?
22. Почему бы нам не использовать новый метод лечения?
23. Давайте подумаем, как ускорить заживление язвы.

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. What field of medicine is the copper vapour laser used in? What other fields of medicine is laser used in?
2. What is laser used for in gastroenterology?
3. What factor proves the effectiveness of laser treatment of ulcers?

**2. Point out facts in the text which are necessary for an advertisement of a copper vapour laser.**

**3. Say what you can about**

**a) the use of laser in medicine and b) the course of treatment of gastric diseases using the following words and word combinations.**

a) an alliance between, doctor, physicist, to lead to, to develop, new methods of treatment, for example, by means of, laser, no novelty in medicine, effective, to cause complications;

b) stomach ulcer, a polyp, to cause haemorrhage, to treat ulcers, to remove polyps from the stomach, a new method of, treatment for, laser, by means of, to speed the cure of, to reduce the period of treatment.

**4. Express your opinion of laser treatment in different fields of medicine, give facts to support your opinion.**

**5. a. Suppose you work in the Central Research Institute of Gastroenterology. Propose to your colleagues to continue the research described in the text; give reasons why this research is necessary; point out factors for further investigation.**

**b. Make up a conversation including the components in (a).**

# Unit 2

*Text:* **Laser Breaks UP Stones.**

*Grammar:*
1. The Past Indefinite (Active, Passive Voice).
2. The Future Indefinite (Active, Passive Voice).
3. The Participle.
4. Comparison of Adjectives.

*Word Formation:* The suffixes **-er, -ion.**

*Speech Patterns:* **Requests.**
– Will you ... ?
A. – Yes, I will.
– I promise I will.
– I assure you I will.
B. – I'd better ... I'd rather ...
C. – I'd better not.
– No, I won't.

## TEXT

# LASER BREAKS UP STONES

BOSTON. Researchers have unveiled a device[1] that uses a tiny laser to shatter and remove stones lodged in the ureter between the kidney and bladder. They say it will enable doctors to avoid surgery for about 100,000 patients a year in the United States.

Dr. John Parrish, director of the Wellman Research Laboratories at Massachusetts General Hospital, where the device was developed, called it "a breakthrough in[2] the treatment of urinary stones", which are formed from accumulation of calcium.

Some small stones can be shattered using shock waves. For larger stones, the new treatment uses an optical fiber inside a tiny tube. The laser fiber is inserted until it touches the stone. After several short laser blasts, the shattered stone can be passed through the urinary tract or removed by a cage-like device[3] at the end of the laser-carrying tube.

### Notes

[1] **to unveil a device** – *зд.* представить прибор
[2] **a breakthrough in ...** – рывок вперед, прорыв в (каком-л. виде деятельности)
[3] **a cage-like device** – прибор, похожий на клетку

### Vocabulary to the Text

**accumulation** [ə,kju:mju'leɪʃn] *n* скопление, накопление
**avoid** [ə'vɔɪd] *v* избегать
**bladder** ['blædə] *n* мочевой пузырь
**blast** [blɑ:st] *n* взрыв
**break** [breɪk] **(broke, broken)** *v* разбивать, разрушать
**calcium** ['kælsɪəm] *n* кальций
**call** [kɔ:l] *v* называть
**carry** ['kærɪ] *v* нести; проводить
**develop** [dɪ'veləp] *v* разрабатывать
**enable** [ɪ'neɪbl] *v* давать возможность
**fiber** ['faɪbə] *n зд.* лазерный проводник
**form** [fɔ:m] *v* образовывать, формировать
**insert** [ɪn'sə:t] *v* вводить
**kidney** ['kɪdnɪ] *n* почка
**lodge** [lɔdʒ] *v* застрять, обосноваться
**pass** [pɑ:s] *v* выводить, проводить (через)
**shatter** ['ʃætə] *v* дробить
**stone** [stoun] *n* камень
**surgery** ['sə:dʒərɪ] *n* хирургическое вмешательство
**tiny** ['taɪnɪ] *a* очень маленький, крошечный
**touch** [tʌtʃ] *n* прикосновение; *v* прикасаться
**tube** [tju:b] *n* трубка
**ureter** [ju'ri:tə] *n* мочеточник
**urinary** ['juərɪnərɪ] *a* мочевой
**wave** [weɪv] *n* волна

## COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the text. Read the text and point out:**

the localization of stones; the size of stones treated with laser; the substance the stones are formed from

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-er, -ion, -al;* point out their stems. Translate the words to whose stems the suffixes are added and the derived words into Russian.**

**b. Point out the stems in the derived words below. Translate the words into Russian, define the parts of speech to the stems of which the suffixes are added.**

singer, painter, dancer, worker, reader, leader, speaker; action, invention, expression, impression, connection, education, consideration

**c. Reproduce the word combinations with *general, accumulation, optical, research* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. Find in the text the sentences with *to shatter* and *to avoid* and translate them into Russian.**

**3. Find in the text the sentences with the Passive constructions *are formed, be shattered, is inserted, be passed, be removed,* translate them into Russian; pay attention to the way the Passive constructions are translated.**

**4. a. Find out the functions of Participle I in the sentences below; pay attention to the ways the Participles are translated into Russian.**

| | |
|---|---|
| 1. Some small stones can be shattered (каким образом?) **using** shock waves. | Некоторые маленькие камни можно раздробить, *используя* импульсивные волны. |
| 2. ... the stone can be removed by a cage-like device at the end of the (какая трубка?) **laser-carrying** tube. | ... камень можно удалить при помощи устройства в виде клетки на конце трубки, *проводящей лазер.* |

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. When *looking* at the children, youths or adults during their physical activities we see healthy people. Are they healthy because of their activity or are they active because they are healthy?
2. The Ministry of Health in Cuba plays a great role, *taking* responsibility for defining medical policies.
3. This may be the key factor *limiting* health *promoting* physical activity.
4. *Existing* health posts, clinics and personnel can be used to provide immunization.

5. Viral diseases *occurring* in tropical countries nowadays are Lasser and Ebola fevers.
6. Cancer cells did not invade *surrounding* tissues.
7. A type *of migrating* breast cancer was induced in experimental rats by injections of a *cancer-causing* chemical.

**5. a. Find out the function of Participle II in the sentences below; pay attention to the way the Participles are translated into Russian.**

| | |
|---|---|
| 1. ... the **shattered** (какой?) stone can be passed through the urinary tract. | ... *раздробленный* камень можно вывести через мочевые пути. |
| 2. Researchers have unveiled a device that uses a tiny laser to shatter and remove stones (которые?) **lodged** in the urethra between the kidney and bladder. | Исследователи представили прибор с очень тонким лазером для дробления и удаления камней, *расположенных (которые расположились)* в мочеиспускательном канале между почкой и мочевым пузырем. |

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. An American surgeon has found a new way to replace the *damaged* bone.
2. Sometimes *broken* legs do not mend properly.
3. When a group of 30 experimental rats *given* a dose of carcinogen were fed with vitamin A, only 5 formed cancer.
4. The participants of the interview were also asked which factors they thought were responsible for the popularity *enjoyed by* traditional healers.
5. You may not realize it, but when you do not sleep, you spend about five minutes of each hour with your eyes *shut*.

**6. Find in the text the words and word combinations below and justify the use or absence of articles proceeding from the context.**

a device that uses, the device was developed, a cage-like device, a tiny laser, the kidney and bladder, the treatment of urinary stones, the new treatment

**7. Point out the predicates in the text; justify the use of Present, Past and Future Tense forms.**

**8. Study the models and use the verbs in brackets in suitable forms to complete the sentences; translate the sentences into Russian.**

**Models:** I. Students **asked** a lot of questions after the lecture yesterday.
II. A lot of questions **were asked** after the lecture yesterday.
The question **was asked** right after the lecture yesterday.

1. Researchers (to unveil) the new device at the conference last month.
2. The device (to use) to shatter urinary stones.
3. The doctor found out that the stone (to lodge) between the kidney and bladder.
4. The new device (to enable) doctors to avoid surgery in such cases.
5. The fiber (to insert) until it touched the stone.
6. The shattered stone (to remove) only after several laser blasts.
7. The shattered stone (to pass) through the urinary tract.
8. The stone (to remove) by a cage-like device at the end of the laser-carrying tube.

**9. Study the models and say that one did not do the following or the following was not done.**

**Models:** I. Students **did not ask** questions after the lecture yesterday.
II. Questions **were not asked** after the lecture yesterday.

1. Researchers unveiled a new device at the conference yesterday.
2. The stone was lodged very close to the bladder.
3. The new device used an optical fiber inside a tiny tube.
4. The new device enabled doctors to avoid surgery.
5. The stone is lodged between the kidney and bladder.
6. The doctor avoided surgery.
7. The doctor removed the stone when it was shattered.
8. The laser fiber was inserted until it touched the stone.
9. The shattered stone was passed through the urinary tract.

**10. Study the models and do the tasks after them.**

**Models:** I. **Did** students **ask** questions after the lecture/yesterday?
II. **Were** questions **asked** after the lecture yesterday?
**Was** the question **asked** then?

**a. Ask**

- if researchers developed a new laser device;
- if the new laser device was developed in the USA;
- if the new laser device was used to shatter stones;
- if the new device was used to remove stones;
- if the new device enabled doctors to avoid surgery;
- if doctors avoided surgery for about 100,000 patients using laser;
- if doctors used a cage-like device to remove the shattered stone;
- if the laser fiber was inserted until it touched the stone;
- if small stones were shattered using shock waves

**b. Revise the text and make up simple sentences to answer the questions in (a).**

**11. Answer the following questions.**

1. Did you dream of majoring in surgery when you were a first-year student? Who of your classmates did?
2. What fields of medicine was laser used in when first applied in medicine? What fields of medicine is it used in now?

**12. Study the models and a) say that one will do the following or the following will be done in the future; b) say that one will not do the following or the following will not be done in the future.**

**Models:** I. I/we **shall ask** you a question.
You/he/she/they **will ask** you questions.

II. A lot of questions **will be asked** after your lecture.

III. I/we **shall not ask** you a question.
You/he/she/they **will not ask** you questions. Questions **will not be asked** after your lecture.

1. Researchers unveiled a new device at the conference in London.
2. The new device enables doctors to avoid surgery.
3. The device was developed at Massachusetts General Hospital.
4. The stone is formed from accumulation of calcium.
5. The small stone was shattered using shock waves.
6. The laser fiber is inserted in the urinary tract.
7. The shattered stone is passed through the urinary tract.
8. The shattered stone is removed by a cage-like device at the end of the laser-carrying tube.

**13. Study the models to do the tasks below.**

**Models:** I. **Shall** I/we **ask** you questions?
**Will** you/he/she/they **ask** him questions?
II. **Will** questions **be asked** after my lecture?

**a. Ask your classmate if**

- he/she will study gastroenterology next year;
- he/she will study surgery next year;
- he/she will learn to use laser;
- laser will be used in his/her practical work;
- he/she will do research work after graduation

**b. Reveal (представьте) the plans of your classmate to everybody.**

**14. Study the models and ask about the described below.**

**Models:** I. Doctors **like** to apply new methods.
**Who likes** to apply new methods?
II. **A new method** was used.
**What** was used?

1. A tiny laser is used to shatter and remove stones.
2. Dr. John Parrish called it "a breakthrough in the treatment of urinary stones".
3. Urinary stones are formed from accumulation of calcium.
4. An alliance of researchers in different fields of science leads to very interesting discoveries.
5. The first results of an experiment show if the method is worth attention.
6. A cage-like device was used to remove the shattered stone.
7. Researchers at Massachusetts General Hospital will develop a new treatment technique for stomach ulcers.
8. The doctor found a stone in the urethra.

**15. a. Study the models and compare the qualities of the phenomena mentioned below.**

**Models:** I. This stone is **large.**
That stone is **larger** than this one.
This stone is **the largest** here.
II. This girl is **beautiful.**
This girl is **more beautiful** than my sister.
This girl is **the most beautiful** here.

III. good – better – best
bad – worse – worst
little – less – least

**Phenomena:**

- day, night;
- winter, autumn, spring, summer;
- work of a sailor, work of a fisherman, work of a teacher, work of an engineer, work of a doctor;
- dancing, singing

**Qualities:**

long, short, cold, warm, hot, cool, beautiful, dangerous, interesting, hard, difficult, valuable, good, bad

**b. Ask your classmates to compare the qualities of the objects or phenomena presented by you.**

**16. a. Study the model and make up short dialogues: you are asking your classmate very politely to do something; your classmate either agrees or refuses to do that.**

**Model:**

| | |
|---|---|
| – Will you translate this article into Russian today? | – Переведите, пожалуйста, эту статью сегодня. |
| – Yes, I will./I promise I will./I assure you I will./No, I won't./I'd better not. I'm too tired today./ I'd better/rather translate it tomorrow. I'm too tired today./ Why don't you translate it yourself? I'm busy today. | – Да, обязательно./Обещаю обязательно сделать это./Уверяю вас, я обязательно сделаю это./Нет! /Лучше не сегодня. Я слишком устал./Я бы предпочел сделать это завтра. Я слишком устал сегодня./ Почему бы тебе самому не перевести ее? Я занят сегодня. |

**b. Suppose you work as a doctor, make requests to your colleagues using the word combinations below; your colleagues either agree or refuse to do that and give reasons for their decision.**

to describe the new device, to shatter the stone now, to use the new laser device, to insert the laser fiber very slowly, to insert the laser fiber until it touches the stone, to use short laser blasts as the stone is large, to use shock waves, to remove the shattered stone by a cage-like device

**17. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

исследователь, крошечный лазер, раздробить камень, удалить камень, обосноваться в мочеточнике, между почкой и мочевым пузырем, прибор предоставит возможность врачам, избежать хирургического вмешательства, разработать прибор, лечение камней в мочевой системе, образовываться в результате скопления кальция, оптический, волокно, волна, внутри крошечной трубки, вывести через мочевые пути, удалить при помощи, в конце трубки

**18. Translate the following sentences into English.**

1. Исследователи часто используют такие методы работы. Этот исследователь иногда использует такие методы работы. Исследователи применили этот метод в прошлом эксперименте.
2. Врачи удаляют полипы при помощи лазерного прибора. Врач удалил полип в желудке этого пациента на прошлой неделе. Полип удален. Полип был удален.
3. Новый метод лечения не позволяет врачам сократить период лечения.
4. Исследователи представят новый прибор на следующей конференции.
5. Камень раздроблен при помощи лазера.
6. Раздроблений камень будет удален через мочевые пути.
7. Волокно введено до конца трубки. Волокно не введено до конца трубки.
8. Трубка была введена глубоко. Трубка не была введена.
9. Камень располагается между почкой и мочевым пузырем. Камень располагается между почкой и мочевым пузырем?
10. Кровотечение остановлено. Кровотечение быстро остановили?
11. Наша лаборатория разработала новый метод лечения. Наша лаборатория разработала новый метод лечения? Кто разработал новый метод лечения?
12. Новый прибор был разработан в нашей лаборатории. Новый прибор был разработан в нашей лаборатории? Что было разработано в нашей лаборатории?
13. Камень образовался в результате скопления кальция. Что образовалось в результате скопления кальция?
14. Покажите мне, пожалуйста, как вводить лазерный проводник в трубку. – Пожалуйста.

15. Покажите мне, пожалуйста, как работает этот прибор. – Только не сейчас. Я очень занят.
16. Удалите, пожалуйста, камень на этой неделе. – Я бы лучше сделал это на следующей неделе. Пациент еще не готов к операции.
17. Покажите мне, пожалуйста, как делают такие операции.
18. Врач удалит полип быстро. Кто будет удалять полип? Он не будет удалять полип в желудке этого пациента. Вы удалите полип в желудке этого пациента?

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. What is the new laser device used for?
2. Why do researchers call the new device "a breakthrough in the treatment of urinary stones"?
3. How are small urinary stones shattered? Larger ones?
4. How are shattered urinary stones removed?

**2. Point out facts in the text which are necessary for an advertisement of the new laser device.**

**3. Say what you can about a) methods of treatment of urinary stones and b) the work of the new laser device described in the text, using the following words and word combinations.**

a) kidney, bladder, urinary stones, to be formed from accumulation of calcium, surgery, to avoid, to use laser, to shatter, to remove

b) to develop, a new laser device, to use in urology, a tiny laser, to shatter, to remove, (small, large) urinary stones, to use shock waves, to use an optical fiber, several short blasts, to pass through the urinary tract, a cage-like device, at the end of, a laser-carrying tube

**4. Express your opinion of the effectiveness of non-surgical methods of treatment of stones, compare them with surgical methods.**

**5. a. Suppose you work in a urology department. Propose to your colleagues to continue the research described in the text; give reasons why this research is necessary; point out problems for further investigation; ask your colleagues very politely to participate in the research.**

**b. Make up a conversation, including the components in (a).**

# Unit 3

*Text:* **Calcium May Prevent Colon Cancer.**
*Grammar:* 1. Modal Verbs (**can, may, must**).
2. The Gerund.
3. The Infinitive *(continued)*.
4. **Much, many, a lot of.**
5. The construction **to have got.**
*Word Formation:* The suffixes **-ful, -ory, -ary.**
*Speech Patterns:* **Permission.**
– May/Can/Could I ... ?
– Would you mind if I ... ?
– Is it all right if I ... ?
*A.* – Yes, that's all right. Certainly!
– Of course! Of course not I don't mind if you ...
*B.* – I'd rather you didn't/don't/won't do that.

## TEXT

# CALCIUM MAY PREVENT COLON CANCER

Eating more calcium might help prevent colon cancer by neutralizing the hazards of[1] a high-fat diet,[2] a study published in the *New England Journal of Medicine* suggests. The researchers said their work was the first to show that calcium could reverse changes in the lining of the colon that often foreshadow cancer.

Dr. Martin Lipkin, who directed the study at Memorial Cancer Centre in New York, cautioned that the findings were preliminary and that no broad changes[3] in diet could be recommended. But Dr. David Krichevsky of the Wister Institute in Philadelphia said:

"Attempts to prevent colon cancer by eating more calcium yielded hopeful results. This is confirmatory of[4] a lot of early data."

Dr. Cedric Garland of the University of California, San Diego, who analysing a large population survey recently found that people who drank a lot of milk appeared to have less colon cancer[5] claims to continue the research.

### Notes

1 **neutralizing the hazards of ...** – нейтрализация вредного воздействия
2 **a high-fat diet** – питание с высоким содержанием жиров
3 **broad changes** – значительные изменения
4 **This is confirmatory of ...** – Это подтверждает (что-л.)
5 **less cancer** – меньше случаев заболевания раком

### Vocabulary to the Text

**caution** ['kɔ:ʃən] *v* предостерегать
**claim** [kleɪm] *v* требовать, претендовать
**colon** ['koulən] *n* толстая кишка
**data** ['deɪtə] *n* (*pl* от **datum**) данные
**foreshadow** [fɔ:'ʃædou] *v* предзнаменовать, предвещать
**hopeful** ['houpful] *a* многообещающий, обнадеживающий
**lining** ['laɪnɪŋ] *n* внутренний слой
**preliminary** [prɪ'lɪmɪnərɪ] *a* предварительный
**prevent** [prɪ'vent] *v* предотвращать
**recently** ['ri:sntlɪ] *adv* недавно, на днях, последнее время
**reverse** [rɪ'və:s] *v* изменить, перевернуть
**study** ['stʌdɪ] *n* исследование

## COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and point out:**

where the study was published; where the research was carried out; how calcium helps prevent colon cancer; what people have less colon cancer

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-ful, -ory, -ary, -ion, -ly* and point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

helpful, doubtful, useful, beautiful, dreadful, careful, successful; contradictory, elementary, ordinary, supplementary, primary

**c. Reproduce the word combinations with *hopeful, confirmatory, early, population, recently* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. Find in the text the sentences with the words *published, cautioned, recommended* and translate them into Russian.**

**3. a. Study the ways of translating the Infinitives into Russian in the sentences below.**

1. He **was the first to show** that calcium could prevent changes in the colon.
2. Attempts (какие?) **to prevent** colon cancer by eating more calcium yielded hopeful results.

Он *первым показал,* что кальций может предотвратить изменения в толстой кишке.

Попытки *предотвратить* рак толстой кишки путем повышения потребления кальция дали обнадеживающие результаты.

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. A pediatrician working in a village in Western Nigeria between 1956 and 1966 was one of the first *to see* the need of education.
2. Attempts *to treat* the disease with interferon have not yielded final evidence hitherto.
3. An American surgeon has found a way *to avoid* amputating the damaged leg – and even *get* the patient walking again quite normally.
4. The target *to provide* adequate supplies of safe drinking water and *to eliminate* pollution of water sources may seem to be superfluous.
5. There were made attempts *to solve* problems in accordance with dogma, social pressure and faith rather than with reason as demanded by science.

**4. a. Study the ways of translating the following constructions in the sentences below.**

1. People who drank a lot of milk **appeared to have** less colon cancer.

У людей, которые пили много молока, *как оказалось, реже наблюдается* рак толстой кишки.

2. People who drink a lot of milk **are known to have** less colon cancer.

У людей, которые пьют много молока, *как известно, реже наблюдается* рак толстой кишки.

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized word combinations are translated.**

1. No testing *is likely to be* appropriate for all antibody detection requirements.
2. Genetic factors *are known to influence* profoundly the ability of mammals to hearing.
3. One of the great difficulties was that the community *was expected to assimilate* the new health service system as soon as possible.
4. The Saharan African disaster, a variety of political conflicts, the violation of human rights, growing environmental pollution, poverty, malnutrition *seemed to proclaim* approaching catastrophe.
5. Denmark's overall mortality from lung cancer, which was 55.8 per 100,000 in 1981, might not *be considered to be* a problem, but a close look at the increasing incidence of lung cancer over a certain period of time illustrates a very serious upsurge.
6. The new device *is said to be* quicker, safer and less expensive.
7. About 10,000,000 red-blood cells *are thought to be destroyed* and *replaced* each second in a human body.

**5. a. Study the ways of translating the Gerund into Russian in the sentences below.**

1. (Что?) **Eating** calcium might prevent colon cancer.

*Потребление* кальция могло бы предотвратить рак толстой кишки.

2. Dr. Garland (когда?) **in analysing** a large population survey recently found that ...

*При анализе* результатов обследования значительной популяции д-р Гарлэнд недавно выяснил, что ...

3. This substance resembles calcium (в чем?) **in neutralizing** the hazards of a high-fat diet.

Это вещество похоже на кальций *способностью обезвреживать* пищу с высоким содержанием жиров.

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. *The findings* can be our guides to action.
2. As to the symptoms of gastric ulcers, *eating* causes pain.
3. *Frowning* requires the use of muscles of the forehead and scalp. *Smiling* requires only the use of a small number of muscles in the vicinity of the mouth, nose and eyes.
4. *Understanding* of the cause of peptic ulcer is limited to the knowledge that peptic ulcer does not occur if the stomach does not secrete acid.
5. The frequency of donor antibodies is very low. Analysis of data obtained in our laboratory during a three-year period showed an incidence of 0.43% *in testing* over 480,000 donor samples by the antiglobulin test.
6. Dissolution of stone retained in the common bile duct *by infusing* a cholisterol dissolving solution into the duct has been described previously in reported studies from numerous medical centres.
7. All over the world, women are the *sustaining* force of families. Women must also be full, forceful partners *in sustaining* development of society.
8. Throughout the developing world women aspire to become full partners with men *in creating* strong and productive society.

**6. Find in the text the word combinations below and justify the use or absence of articles proceeding from the context.**

the hazards of a high-fat diet, a study published, the *New England Journal,* the researchers said, the lining of the colon, the findings were preliminary, no broad changes, a large population survey

**7. Point out the predicates in the text; justify the use of Present and Past forms.**

**8. Study the models and use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

**Models:** I. Students **must attend** all lectures.
Students **had to attend** lectures last week.
Students **will have to attend** lectures tomorrow.

II. Students **can attend** extra lectures.
Students **could attend** this lecture yesterday.
Students **will be able to attend** this lecture tomorrow.

III. You **may find** it in his lectures. (вероятность)

1. Calcium (may prevent) colon cancer by neutralising the hazards of a high-fat diet.
2. This study (can be published) in the *New England Journal of Medicine.*
3. This study (may be published) this week.
4. This study (must be published) in the *New England Journal of Medicine.*
5. Dr. Martin Lipkin (can direct) the study last year.
6. The study (must be directed) by Dr. Lipkin, but he refused to do this research.
7. Calcium (can reverse) changes in the lining of the colon, but we were not sure it was only calcium that helped prevent cancer.
8. Changes in the lining of the colon (can be reversed) by calcium, but we did not do know that then.
9. The researchers (can try this chemical), but they did not do that.
10. The doctor (must recommend) some changes in your diet when you feel better.
11. We (must analyse) this survey tomorrow.
12. Soon the researchers (can show) that calcium reverses changes in the lining of the colon by means of this experiment.

**9. Study the models and negate (отрицать) the following.**

**Models:** I. Students **needn't** attend all extra lectures. (не должны, не надо)
Students **must not** miss lectures. (не должны, нельзя)
Students **did not have to** attend this lecture yesterday.
Students **will not have to** attend this lecture tomorrow.

II. Students **cannot** attend all lectures.
Students **could not** attend this lecture yesterday.
Students **will not be able** to attend this lecture tomorrow.

1. This substance can prevent colon cancer.
2. Colon cancer can be prevented by neutralizing the hazards of a high-fat diet.
3. This study could be published last year.
4. We could easily analyse the survey.
5. We shall be able to analyse all the surveys in the *New England Journal of Medicine* next month.

6. Calcium could reverse changes in the lining of the colon.
7. Calcium could help prevent colon cancer.
8. Changes in the lining of the colon could be reversed.
9. Doctors will be able to try the new method of treatment for colon cancer.
10. The researchers must try this harmless chemical on animals first.
11. This chemical must be recommended for such cases.
12. The doctor had to recommend changes in your diet.
13. The doctor will have to recommend changes in my diet when I feel better.
14. The researchers had to continue their work in spite of negative results.

**10. Study the models to do the tasks below.**

**Models:** I. **Must** the students **attend** all lectures?
**Did** the students **have to attend** all lectures last year?
**Will** the students **have to attend** all lectures next year?

II. **Can** the students **stay** after lectures?
**Could** the students **stay** after this lecture yesterday?
**Will** the students **be able to stay** after lectures tomorrow?

**a. Ask**

- if eating more calcium can help prevent colon cancer;
- if calcium can prevent colon cancer;
- if colon cancer can be prevented by neutralizing the hazards of a high-fat diet;
- if colon cancer could be caused by a high-fat diet;
- if doctors will be able to cure cancer;
- if doctors must recommend diet changes;
- if diet must be changed in case of colon cancer;
- if researchers had to continue their work on cancer prevention;
- if research on cancer prevention had to be continued;
- if researchers will have to make broad changes in the course of experiment

**b. Make up simple sentences to answer the questions in (a).**

**11. Answer the following questions.**

1. Can aspirin prevent common cold (простуда)?

2. What measures can prevent common cold?
3. What must we do if we have common cold?
4. What must we do to avoid complications in case of common cold?
5. When did you have common cold last time?
6. What did you have to do when you had common cold?
7. How could you avoid complications?
8. Will you be able to do research work next year?
9. What research will you do?
10. What will you have to start your research with?

**12. Study the question words and the models below; ask as many questions as possible about the sentences below.**

**Question Words:** **who** (кто), **what** (что), **when** (когда), **where** (где), **why** (почему), **how** (каким образом), **how much/many** (сколько), **how well** (насколько хорошо).

**Models:** Dan could speak French very well when a child.
**Who** could speak French very well when a child?
**What** language could Dan speak when a child?
**How well** could Dan speak French when a child?
**When** could Dan speak French very well?

1. Eating more calcium might help prevent colon cancer by neutralizing the hazards of a high-fat diet.
2. Dr. Lipkin cautioned that the findings were preliminary and that no broad changes in diet could be recommended.
3. People who drank a lot of milk appeared to have less colon cancer.
4. Dr. Garland who analysed a large population survey claims to continue the research.

**13. Prove (докажите) using the words in the columns that you**

- are always busy;
- have spare time sometimes;
- are rich;
- are poor;
- have a good collection of books;
- have a poor collection of books in English;
- have a good garden;
- love flowers

**Models:** I. a. I **have** got **a lot to** say.
b. I **have** got **a lot of** articles on the problem.

II. a. I **haven't** got **much** to say.
b. I haven**'t** got **many** articles on the problem.

| | | | |
|---|---|---|---|
| I | have got<br>haven't got | a lot (of)<br>much<br>many | work to do<br>books in English<br>books in Russian<br>money<br>gold<br>flowers at home<br>cars<br>apple trees in the garden<br>good furniture in my flat<br>pieces of furniture in my flat<br>old pictures of famous painters |

**14. a. Ask your classmates if they have got a lot to do tonight, to discuss at the morning conference in hospital tomorrow, a lot of money, a lot of jewellery, problems, books in English, relatives, patients.**

**Models:** I. Have you got **much** time to spare?
**Yes, a lot.**
**No,** I haven**'t** got **much** time to spare.

II. Have you got **many** books in your bag?
**Yes, a lot.**
**No,** I haven**'t** got **many** books in my bag.

**b. Suppose you are speaking to a researcher who investigates the problem described in the text, ask if**

- he has got a lot of evidence that calcium may prevent colon changes;
- people who drink milk have less colon cancer;
- calcium can reverse changes in the lining of the colon;
- the changes in the colon can be caused by a high-fat diet;
- he has got a lot of preliminary findings, hopeful findings, published studies on the problem

**15. a. Study the models and make up short dialogues: you are asking for permission to do something; your classmate either permits you that or not.**

**Models:**

I. – May/Can I take your journal? – Можно взять твой журнал?

| | |
|---|---|
| – Certainly!/Yes, of course!/ Of course not! Don't you see I'm reading it? | – Конечно!/Да, конечно!/Конечно, нет. Разве ты не видишь, что я его читаю. |
| II. – Could I help you somehow? | – Не могу ли я вам помочь как-нибудь? |
| – Certainly!/Yes, of course!/ Of course not! There is no way out. | – (Да) Конечно!/Конечно, нет! Нет выхода из этого положения. |
| III. – Is it all right if I come later? | – Ничего, если я приду позже? |
| – Yes, that's all right!/I'd rather you won't. I will be out. | – Ничего./Лучше не надо. Меня здесь не будет. |
| IV. – Do you mind if I come later? | – Не возражаете, если я приду позже? |
| – Of course not!/I do mind if you come later. We have got a lot to do. | – Конечно, нет./Возражаю. У нас много работы. |

**b. Suppose you are a junior researcher, ask the senior researcher for permission to do something, using the word combinations below; the senior researcher either gives his permission to do that or not.**

- to use some data in your survey,
- to show the new device to some colleague,
- to continue the experiment later,
- to analyse the survey in the journal later,
- to describe preliminary findings,
- to use a laser device for your experiment,
- to use short laser blasts in your experiment,
- to change the diet of the experimental animals

**16. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

больше кальция, потребление кальция, помочь предупредить болезнь, рак толстой кишки, питание с высоким содержанием жиров, исследование предлагает, придать изменениям обратное развитие, стенка толстой кишки, предшествовать раку, руководить исследованием, предварительные данные, обнадеживающие данные, изменение питания, быть рекомендованным, более ранние данные, недавно выявил, анализировать обзор, пить много

молока, меньше случаев рака толстой кишки, продолжить исследование

**17. Translate the following sentences into English.**

1. Наша лаборатория часто предлагает новые методы профилактики. Наша лаборатория предложила новые методы профилактики многих заболеваний в прошлом году.
2. Этот прибор не новшество в медицине. Этот прибор не будет новшеством в медицине.
3. Камень удален при помощи лазера. Камень будет удален при помощи лазера.
4. Период лечения может быть короче. Период лечения мог быть короче. Я смогу сократить период лечения.
5. Вы должны изменить диету. Он должен был изменить диету. Он должен будет изменить диету.
6. Диета может быть изменена. Диета должна быть изменена.
7. Изменения в слизистой толстой кишки можно было предотвратить. Изменения в толстой кишке нельзя было предотвратить.
8. Пейте больше молока!
9. Не пейте много чая!
10. У меня не много обзоров по этому вопросу.
11. У него не много данных, подтверждающих эту гипотезу.
12. Этот метод был хуже? Какой метод был лучше?
13. Кто смог быстро получить такие результаты?
14. Что он изменил в ходе лечения? Почему он изменил ход лечения?
15. Когда вы сможете показать нам этот прибор?
16. Кому придется пользоваться этим прибором?
17. Можно изменить метод лечения? Почему бы вам не изменить метод лечения?
18. Давайте посмотрим последние обзоры.
19. Посоветуйте мне что-нибудь, пожалуйста. – Обещаю дать вам совет позже.
20. Вы не возражаете, если я посмотрю этот журнал здесь? – Конечно, нет.
21. Ничего, если я возьму журнал домой? – Лучше не надо. Я часто просматриваю его.

## SPEECH EXERCISES

**1. Revise the text to answer the following questions.**

1. What hypothesis is suggested by researchers?
2. What findings are revealed by researchers?
3. What action of calcium in human body was observed?
4. What survey supports the preliminary data presented in the text?

**2. Say why milk is useful; point out more facts in the text to illustrate the usefulness of milk.**

**3. Say what you can about a) the role of calcium in human body; b) research on colon cancer prevention described in the text. Use the following words and word combinations.**

a) eating more calcium, to neutralize a high-fat diet hazards, to reverse changes, the lining of the colon, to foreshadow cancer

b) preliminary findings, hopeful findings, early data, to confirm, calcium, to reverse changes, the lining of the colon, to foreshadow cancer, to prevent cancer, to drink a lot of milk, to have less colon cancer, no broad changes in diet, can be recommended

**4. Express your opinion of the research on calcium treatment presented in the text; point out problems for further investigation.**

**a. Suppose you work in the research team that does the investigation described in the text. Propose how to continue the research; ask for permission to do some part of the research.**

**b. Make up a conversation including the components in (a).**

# Unit 4

*Text:* **Monitoring Changes in Fertility.**

*Grammar:*
1. The Present and Past Continuous Tenses (Active, Passive Voice)
2. The Participle *(revision)*.
3. The Genitive Case of Nouns.
4. The construction **there is/are**.

*Word Formation:* The suffix **-able**.

*Speech Patterns:* **Advice.**
– I think/I don't think you should ...
– You'd better ...
– I advise you ...
– Thank you so/very much for your advice.
– You are welcome.
– It's nothing.

## TEXT

# MONITORING CHANGES IN FERTILITY

There are home health tests which can be used to detect the body's biological rhythms. Some tests pinpoint the time[1] when a woman is reaching peak fertility, providing invaluable information.

The system, developed a year ago by Personal Diagnostic, Inc.,[2] N.Y., detects patterns in a woman's fertility cycle by measuring changes in the relative amounts of four salivary enzymes. Each morning a woman places a small sponge in her mouth until it is saturated with saliva. She puts the sponge in a dispos-

able container filled with chemical reagents and places it in a small analyser. The analyser measures the concentration of the four enzymes and, from that, determines the date when the woman is most likely to ovulate. The system, which costs about[3] 200 dollars, is expected to be marketed.[4]

## Notes

1 **to pinpoint the time** – точно определить время
2 **Inc. = incorporated** – зарегистрированная организация
3 **to cost about ...** – стоить примерно ...
4 **to be marketed** – поступить в продажу

## Vocabulary to the Text

**amount** [ə'maunt] *n* количество
**concentration** [ˌkɔnsən'treɪʃn] *n* концентрация
**container** [kən'teɪnə] *n* резервуар, сосуд, емкость
**cost** [kɔst] **(cost)** *v* стоить
**cycle** ['saɪkl] *n* цикл
**detect** [dɪ'tekt] *v* выявить
**determine** [dɪ'tə:mɪn] *v* определить, установить
**disposable** [dɪs'pouzəbl] *a* одноразового пользования
**enzyme** ['enzaɪm] *n* фермент
**fertility** [fə:'tɪlɪtɪ] *n* фертильность
**health** [helθ] *n* здоровье
**invaluable** [ɪn'væljuəbl] *a* неоценимый, бесценный
**measure** ['meʒə] *v* измерять
**monitor** ['mɔnɪtə] *n* наставник; v контролировать
**mouth** [mauθ] *n* рот
**peak** [pi:k] *n* максимум
**provide** [prə'vaɪd] *v* снабжать, обеспечивать
**reach** [ri:tʃ] *v* достигать
**reagent** [ri:'eɪdʒənt] *n* реактив
**relative** ['relətɪv] *a* относительный
**rhythm** ['rɪðəm] *n* ритм
**saliva** [sə'laɪvə] *n* слюна
**salivary** ['sælɪvərɪ] *a* слюнной
**saturate** ['sætʃəreɪt] *v* насыщать, пропитывать
**sponge** [spʌndʒ] *n* губка

# COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and point out:**

- what is detected by the system described in the text;
- what changes are measured by the system;
- what date is determined due to measuring the concentration of salivary enzymes

## VOCABULARY AND GRAMMAR EXERCISES

1. **a. Pick out in the text the words with the suffixes *-able, -ion, -ty, -al, -er* and point out their stems. Translate the words to the stems of which the suffixes are added and the derived words into Russian.**

   **b. Point out the stems in the derived words below; translate the words into Russian, define the parts of speech to the stems of which the suffixes are added.**

changeable, preventable, valuable, understandable, curable, removable

   **c. Reproduce the word combinations with *biological, invaluable, information, salivary, disposable, container, chemical, analyser, concentration* from the text; translate them into Russian. Make up sentences of your own with them.**

2. **a. Find in the text the sentences with the words *used, developed, saturated, filled, expected* and translate them into Russian.**

   **b. Find in the text the sentences with the words *providing, measuring* and choose the most suitable Russian translations proceeding from the functions of the words in the sentences.**

**providing** – обеспечивая, обеспечивающий, обеспечение
**measuring** – измеряя, измеряющий, измерение

   **c. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. Normally you breathe 25,920 times a day, *inhaling* about 450 cubic feet of air.
2. *Speaking* of hair, a *dark-haired* person has on his head about 120,000 hairs; a blond about 150,000 hairs; and a *red-haired person* only about 90,000.
3. Infection of the ear canal may be localized or diffuse, *involving* the entire canal.
4. *Carrying* out ocular evaluation, the doctor tested the patient's eyes separately and together.
5. The doctor can shatter small stones *using* shock waves.
6. *Using* common drugs for long periods, patients may not think to mention them on *questioning*.
7. A handful of patients who need almost no sleep are *puzzling* doctors and scientists.
8. Pregnant women who have been taking aspirin need not panic; the drug has been *used* for so long and by so many people that any risk must be very small.

9. Causes of sleeplessness vary from excitement and worry to the *snoring* of the person *sharing* the bed.
10. Whooping cough was once one of America's *leading* child killers.
11. These research *findings* will need confirmation before any firm recommendation can be *made* on the choice of pain *relieving* drugs in pregnancy.
12. A correct answer to this question is important to individuals, families, and private and public organizations, as well as to governments *seeking* ways of *promoting* health and *preventing* diseases.
13. Therapy in haemorrhagic fever of the kinds *mentioned* is therefore only symptomatic.
14. The *required* minimum and optimum amounts of physical exercise vary between wide limits.
15. Physical activities take many forms. In children it is play, *characterized* by joy.

**3. Find out what words in the word combinations below name phenomena and what words describe their qualities; translate them into Russian.**

home health tests, the body's rhythms, peak fertility, a woman's fertility cycle

**4. Find in the text the word combinations below and justify the use or absence of articles proceeding from the context.**

home health tests, the relative amounts, a small sponge, a disposable container, filled with chemical reagents, the analyser measures, the concentration of the four enzymes

**5. Point out the predicates in the text; justify the use of Present Tense forms.**

**6. Translate the sentences below into Russian; point out the constructions in the sentences which provide the meaning of possibility and probability.**

1. Home health tests can also be used to detect the body's biological rhythms.
2. The analyser measures the concentration of the four enzymes and, from that, determines the date when the woman is most likely to ovulate.
3. The system is expected to be marketed early in the year.

**7. Use the verbs in brackets in suitable forms to complete the sentences; give several versions if possible; translate the sentences into Russian.**

1. Health tests can (to use) at home.
2. Blood tests can (to provide) invaluable information.
3. This woman's peak fertility (to reach) today.
4. The system (to develop) by Personal Diagnostic, Inc. a year ago.
5. The system may (to detect) patterns in a woman's fertility cycle.
6. Each morning the woman (to place) a small sponge in the mouth.
7. She must (to put) the sponge in the disposable container.
8. The sponge saturated with saliva had to (to place) in the analyser.
9. The sponge must (to saturate) with saliva.
10. The concentration of the four salivary enzymes had to (to measure).
11. The analyser could (to determine) the date of ovulation.
12. The system (to cost) 200 dollars last year.
13. The system (to market) next year.

**8. Study the models and say that one a) is doing the following at the moment; b) was doing the following at some moment in the past; c) is not and was not doing the following at some moment.**

**Models:** I. I **am asking** a question. Don't you hear?
Attention! The student **is asking** a question.
The students **are discussing** a very important problem at the moment.

II. I/The student **was asking** a question when you came in.
The students **were asking** questions when you came in.

III. The student **is/was not asking** a question now/then.
The students **are/were not asking** questions now/then.

1. The researcher measures the relative amount of enzymes.
2. The woman places the sponge in the mouth.
3. The woman puts the sponge in the disposable container.
4. The woman places the sponge saturated with saliva in a small analyser.
5. The analyser measures the concentration of enzymes.
6. The analyser determines the date of ovulation.
7. The researchers detect the body's biological rhythms in this lab.

**9. Study the models to do the tasks on p. 47.**

**Models:** **Is (Was)** he **translating** a text now (then)?
**Are (Were)** you **translating** a text now (then)?

**a. Ask**

- if your classmate is reading an article on home health tests;
- if your classmate is reading an article on salivary enzymes;
- if your classmate was measuring the concentration of salivary enzymes in the laboratory in the morning;
- if your classmate was filling containers with chemical reagents when you came in

**b. Make up simple sentences to answer the questions (a) positively or negatively.**

**10. a. Study the models and say that the following a) is being done at the moment; b) was being done at some moment in the past.**

**Models:** I. A new device **is being discussed** in this article.
New devices **are being discussed** in this article.

II. A new device **was being discussed** at the previous conference.
New devices **were being discussed** at the previous conference.

1. This test is used to detect the body's biological rhythms.
2. Peak fertility is reached.
3. A new system is developed by Personal Diagnostic, Inc.
4. Changes in relative amounts of salivary enzymes are measured.
5. A small sponge is placed in the mouth.
6. The container is filled with chemical reagents.
7. The sponge is saturated with saliva.
8. The sponge is placed in the analyser.

**b. Say what is being done in class now/was being done in class when the teacher came in.**

**11. Answer the following questions.**

1. Are you detecting the body's biological rhythms at the moment? Is your classmate detecting the body's biological rhythms now? Were you detecting the body's biological rhythms in the morning? Was your classmate detecting the body's biological rhythms in the morning? What were you doing in class this morning?
2. Is the fertility monitoring system being developed in this University? Is the fertility monitoring system being developed now? Was

the fertility monitoring system being developed in 1972? When was the fertility monitoring system developed? Where was the fertility monitoring system developed?

**12. Ask as many questions as possible about the sentences below.**

1. Home health tests can be used to detect the body's biological rhythms.
2. The system developed a year ago by Personal Diagnostic, Inc. can detect patterns in a woman's fertility cycle by measuring changes in the relative amounts of four salivary enzymes.
3. Each morning the woman places a small sponge in her mouth until it was saturated with saliva.
4. The analyser measures the concentration of the four enzymes and from that determines the date of ovulation.

**13. a. Study the models and say what belongs to whom using the words in the columns.**

**Models:** I. A bag **of my friend.**
**My friend's** bag.

II. Bags **of my friends.**
**My friends'** bags.

| | |
|---|---|
| a body | advice |
| a woman | prescriptions |
| an animal | opinion |
| a patient | treatment |
| a scientist | biological rhythms |
| researchers | fertility cycle |
| patients | diet |
| a doctor | complaints |
| physicians | condition |
| | findings |

**b. Play the following game: each student puts some objects on the table, the teacher selects one, the students do their best to say whose object it is.**

**Model:** It is **Nick's** book.

**14. a. Study the models and give descriptions using the words in the columns.**

**Models:** I. **There is (was, will be) a pen** in my bag.
**There are (were, will be) pens** in my bag.

II. **There is a pen** and **two books** in my bag.
**There are two books** and **a pen** in my bag.

III. **There is (was) not** a pen in my bag./**There is (was) no** pen in my bag.
**There are (were) not** any pens in my bag./**There are (were) no** pens in my bag.
**There won't be** a pen in my bag./**There will be no** pen(s) in my bag.

| | | | |
|---|---|---|---|
| There | is (not) (no) | a severe case in our department | at the moment. |
| | was (not) (no) | mild cases in our department | last week. |
| | are (not) (no) | chemical agents in the container | last month. |
| | were (not) (no) | a sponge in the patient's mouth | when I came in. |
| | will be (no) (won't be) | sponges in the container | an hour ago. |
| | | a sponge in the analyser | last time. next time. |

**b. Describe the classroom using the models in section (a).**

**c. Make a description of the components of a fertility monitoring system using the word combinations below and models in (a).**

a lot of small sponges in the box, a disposable container in the box, a number of chemical reagents in the container, an analyser in a separate box

**d. Make up questions after the model below to find out the number of the components of a fertility monitoring device.**

**Model:** **How many** bottles **are there** in the device?

**15. a. Study the models and make up short dialogues: you are giving some advice to your classmate; your classmate is very grateful to you.**

**Models:**

| | |
|---|---|
| – I think/don't think you should ... | – Я думаю/не думаю, что вам следует ... |

| | |
|---|---|
| – You'd better (do) ... | – Вы бы лучше ... |
| – I advise you (to do) ... | – Я советую вам ... |
| – Thank you so/very much for your advice. | – Большое спасибо за совет. |
| – You are welcome. | – Пожалуйста. |
| – It's nothing. | – Ничего. |

**b. Suppose you are speaking to a patient who wants to use the fertility monitoring system. Explain to him how to apply it using the word combinations below; the patient thanks you for your advice.**

- to use the system every morning,
- to wash hands before taking a sponge,
- to use two sponges at a time,
- to keep a sponge in the mouth until it is saturated with saliva,
- to open the disposable container with chemical reagents carefully,
- to put the sponge in a disposable container before the analyser,
- to clean the analyser after using it

**16. Revise the text and give English equivalents to the following Russian words and word combinations (pay attention to prepositions). Make up sentences of your own with them.**

биоритмы организма, достичь пика фертильности, бесценная информация, предоставить информацию, разработать систему, цикл фертильности женщины, установить модель, модель цикла, измерить количество, относительные величины, пропитаться слюной, поместить в рот, положить в анализатор, сосуд с химическими реактивами, концентрация ферментов, определить дату, губка, установить дату овуляции, наполнить сосуд

**17. Translate the following sentences into English.**

1. Эта лаборатория часто разрабатывает новые методы. В настоящее время наша лаборатория разрабатывает новый оптический прибор. Новый прибор разрабатывают в нашей лаборатории.
2. Они удалили камень во время операции. Камень был удален при помощи лазера. В это время вчера они удаляли камень.
3. Врач раздробит камень при помощи лазера. Камень выведут через мочевые пути.

4. Дети должны пить много молока. Он должен был выпить это молоко. Ему надо будет выпить молоко вечером.
5. Вы можете наполнить сосуд реактивом. Вы могли наполнить сосуд реактивом утром. Вы сможете наполнить сосуд реактивом позже.
6. Биоритмы этого пациента должны быть определены сейчас. Биоритмы этого пациента должны были определить утром.
7. Концентрация ферментов может быть установлена при помощи этого анализатора. Концентрация ферментов могла быть установлена при помощи анализатора.
8. Мы не пользуемся этими анализаторами. Мы не пользовались анализатором. Мы не будем пользоваться анализатором.
9. Сейчас мы не определяем количество ферментов в слюне. Мы не определяли соотношение (относительное количество) ферментов в слюне тогда.
10. Мы не можем предоставить вам такую информацию. Мы не обязаны предоставлять вам такую информацию.
11. Определите ваш пик фертильности!
12. Не проводите этот тест.
13. Ваши данные более интересные.
14. Этот прибор лучше, чем тот.
15. Когда они сокращают период лечения?
16. Куда они положили губку?
17. Какой прибор они сейчас показывают?
18. Почему информация была предоставлена так поздно?
19. Почему они не могут изменить модель эксперимента?
20. Когда вы должны положить губку в химический реактив?
21. Что вы положите в анализатор?
22. Я думаю, что вам следует купить этот прибор.
23. Вы бы лучше взяли мой анализатор.
24. Не возражаете, если я возьму ваш анализатор?
25. Почему бы нам не добавить еще один реактив?

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. What information is invaluable for a woman who wants to avoid pregnancy?

2. What device is developed by Personal Diagnostic, Inc.?
3. How does a woman use the device described in the text?

**2. Point out facts in the text which are necessary for an instruction list to the fertility monitoring system.**

**3. Say what you can about a) a woman's fertility and b) the new device for detecting the ovulation date. Use the words and word combinations below.**

a) fertility cycle, peak fertility, be likely to do, to ovulate, the date
b) to determine the date, to ovulate, peak fertility, to detect patterns, a fertility cycle, to measure changes in, the relative amounts, salivary enzymes, to place, a small sponge, an analyser, a mouth, a disposable container, chemical reagents, to measure the concentration, to be saturated with

**4. Express your opinion if the method suggested in the text is convenient in everyday life. Give reasons to support your opinion; suggest other methods of determining the peak fertility.**

**a. Suppose you work in the team that has developed the system described in the text. Ask for permission to supervise the marketing of the system; think of some reasons why you should do that; make a suggestion what factors should be considered to improve the device.**

**b. Make up a conversation including the components in (a).**

# Unit 5

*Text:* **Stroke Diagnosis.**

*Grammar:*
1. The Present Perfect (Active, Passive Voice).
2. The Infinitive (*continued*).
3. Indefinite pronouns.
4. Comparison constructions **as ... as, not so ... as.**

*Word Formation:* The suffixes **-ive, -ic**; the prefix **non-**.

*Speech Patterns:*

1. **Possibility.**
- That's quite possible.
- That's very likely.
- (Quite) Possibly.
- Probably.
- You may be right.
- Perhaps.

2. **Impossibility.**
- That's (quite) impossible.
- That's very unlikely.

## TEXT

## STROKE DIAGNOSIS

An electronic diagnostic system that can provide early detection of carotid occlusive disease – a buildup of fat and calcium deposits[1] in the carotid arteries that is a prime cause[2] of strokes – has been introduced by Narco Scientific Industries, Inc.,[3] of Fort Washington, Pa.[4] The new device, called the Oculoplethysmograph (OPG), is said to be quicker, safer and not so expensive as the arteriogram procedure, which requires a dye to be injected into the patient's blood stream and X-ray photography to measure circulation. The OPG is a noninvasive system –

that is nothing is inserted or injected into the patient. Transparent, contact lens-style[5] cups are applied to both eyes and sensors are attached to the ear lobes. Electrical impulses transmitted from the eye and ear sensors are then recorded to indicate the extent of fat and calcium deposits. Buildups of these deposits can block the passage of blood from the heart to the brain.

## Notes

1 **buildup of deposits** – отложение чего-л.
2 **a prime cause** – главная причина
3 **Inc. = incorparated** – зарегистрированная (организация)
4 **Pa = Pennsylvania** – Пенсильвания (штат США)
5 **lens-style** – подобный линзе

## Vocabulary to the Text

**apply** [ə'plaɪ] *v* прикладывать
**arteriogram** [ɑ:'ti:rɪougræm] *n* артериограмма
**artery** ['ɑ:tərɪ] *n* артерия
**attach** [ə'tætʃ] *v* прикреплять
**block** [blɔk] *v* блокировать
**blood** [blʌd] *n* кровь
**brain** [breɪn] *n* мозг
**carotid** [kə'rɔtɪd] *n* сонная артерия
**circulation** [ˌsə:kju'leɪʃən] *n* циркуляция
**dye** [daɪ] *n* краситель, контрастная жидкость
**ear** [ɪə] *n* ухо
**expensive** [ɪks'pensɪv] *a* дорогостоящий
**extent** [ɪks'tent] *n* протяжение; степень
**eye** [aɪ] *n* глаз
**fat** [fæt] *n* жир
**heart** [hɑ:t] *n* сердце
**indicate** ['ɪndɪkeɪt] *v* показывать, указывать
**inject** [ɪn'dʒekt] *v* делать инъекцию, впрыскивать
**introduce** [ˌɪntrə'dju:s] *v* вводить, вставлять
**lobe** [loub] *n* мочка уха
**occlusive** [ə'klu:sɪv] *a* обтурирующий, закрывающий
**passage** ['pæsɪdʒ] *n* прохождение, проход
**procedure** [prə'si:dʒə] *n* процедура; процесс
**record** [rɪ'kɔ:d] *v* записывать, регистрировать
**require** [rɪ'kwaɪə] *v* требовать, нуждаться
**stream** [stri:m] *n* поток
**stroke** [strouk] *n* припадок, «удар», инсульт
**transmit** [træns'mɪt] *v* передавать
**transparent** [træns'pɛərənt] *a* прозрачный

# COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and find out if the text is about:**

- the possibility of stroke diagnosis;
- the procedure of stroke diagnosis;
- the best time for stroke diagnosis;
- the diagnostic procedure at an active stage of the disease;
- the early detection of the disease

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-ive, -ic, -ion, -al,* the prefix *non-* and point out their stems. Translate the words to whose stems the suffixes and the prefix are added and the derived words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

pessimistic, stylistic, historic, economic, symbolic, periodic; collective, attractive, preventive, creative, illustrative, alternative; non-resistance, non-provided, non-inductive, nonsensical

**c. Reproduce the word combinations with *scientific, electronic, diagnostic, electrical, occlusive, expensive, noninvasive, detection, circulation* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. Find in the text the sentences with the words *introduced, called, said, inserted, injected, applied, attached, transmitted, recorded* and translate the constructions they are used in into Russian.**

**3. Find in the text the sentences with the word combinations *to be quicker, to measure circulation, to indicate the extent* and translate them into Russian.**

**4. a. Compare the Infinitive constructions below; pay attention to the ways they are translated into Russian.**

1. The arteriogram procedure requires a dye (какое?) **to be injected** into the patient's blood stream,
2. The attempt (какая?) **to inject** the dye for the arteriogram procedure had no success.

Для артериографии требуется контрастное вещество, *которое надо (следует) ввести* в кровь пациента.

Попытка *ввести* контрастное вещество для проведения артериографии была безуспешной.

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. Three questions *to be answered* for each patient are the follows.
2. Provision is made at certain hospitals for patients *to be treated* as private patients on payment of the whole cost of their accommodation and treatment.
3. Reduction in sputum production is the primary benefit *to be gained* from stopping smoking.
4. This operation is difficult when coarctation of the aorta is long or when the two ends *to be anastomosed* are of different size.
5. The problem *to be discussed* concerns the process of stroke prevention.
6. Procedures *to induce* immunologic unresponsiveness to food proteins may some day be devised.
7. If in an effort *to be brief,* I seem superficial or dogmatic, I beg your indulgence and understanding.
8. The minimum period of hospital training *to qualify* for registration as a nurse is normally three years.

**5. Find out what words in the word combinations below name phenomena and what words describe their qualities; translate them into Russian.**

carotid disease, carotid arteries, fat and calcium deposits, arteriogram procedure, the patient's blood stream, X-ray photography, ear lobes, eye and ear sensors

**6. Find in the text the word combinations below and justify the use or absence of articles proceeding from the context.**

an electronic diagnostic system, the new device called OPG, sensors are attached to the ear lobes, impulses transmitted from the eye and ear sensors

**7. Point out the predicates with the verb *to be* in the text; say when *to be* is used in a Passive construction and when in the meaning *быть, являться.***

**8. Point out the predicates with the verb *can* in the text; say if they express the meaning of possibility or capability.**

**9. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

1. This electronic system can (to use) as a diagnostic device.
2. This electronic diagnostic system can (to provide) early detection of carotid occlusive disease.
3. In this article Narco Scientific Industries, Inc. (to introduce) a new electronic device.
4. The new diagnostic system (to introduce) by Narco Scientific Industries, Inc.
5. The new diagnostic system (to introduce) by a representative of Narco Scientific Industries, Inc. at the moment and everybody (to listen) to him attentively.
6. The new device (to call) Oculoplethysmograph.
7. A dye must (to inject) into the blood stream right before the procedure.
8. Blood circulation can (to measure) by means of arteriogram procedure.
9. Look! The nurse (to inject) a dye into a patient's blood stream.
10. A dye (to inject) now.
11. Contact lens-style cups (to apply) to both eyes.
12. Sensors must (to attach) to the ear lobes.
13. Electrical impulses (to transmit) from the eye and ear sensors.
14. Electrical impulses must (to record).
15. Look! The system (to record) electrical impulses.
16. Buildups of fat and calcium deposits can (to block) the passage of blood from the heart to the brain.

**10. Study the models and say a) that one has done the following or the following has been done by now; b) that one has not done the following or the following has not been done by now.**

**Models:** I. I **have translated** the article. You may see the translation now.
He **has translated** the article. You may see the translation now.

II. The article **has been translated** by my friend. You may ask him what is not clear.
The articles **have been translated** by my friend. You may ask him what is not clear.

III. 1. I **have not translated** the article yet.
He **has not translated** the article yet.
2. The article **has not been translated** by this student.
The articles **have not been translated** by this student.

1. Narco Scientific Industries, Inc. introduced the new electronic system a year ago.
2. The new electronic system was introduced by Narco Scientific Industries, Inc. a year ago.
3. Researchers called the new device Oculoplethysmograph.
4. The arteriogram procedure requires a dye to be injected.
5. Blood circulation of this patient was measured yesterday.
6. The nurse injected a dye into the patient's blood stream.
7. Contact lens-style cups were applied to both eyes.
8. Sensors were attached to the ear lobes.
9. Electrical impulses were recorded to indicate the extent of fat deposits.
10. Fat and calcium deposits blocked the passage of blood from the heart to the brain.

**11. Study the models to do the tasks below.**

**Models:** I. **Have** you **translated** the article?
**Has** he **translated** the article?

II. **Has** the article **been translated?**
**Have** the articles **been translated?**

**a. Find out**

- if your classmates have read anything about strokes by today;
- if your classmate has ever seen a patient with a stroke;
- if your classmates have ever been shown the OPG device;
- if your classmate has ever been injected a dye for arteriogram procedure

**b. Say what information you obtained through the interrogation (onpoc) in (a).**

**12. Answer the following questions.**

1. Have you ever examined a patient with a stroke? Has your classmate ever examined a patient with a stroke?
2. Have you ever seen the OPG device? Has your classmate ever seen the OPG device? Where can you see the device?
3. Have you ever been administered arteriography? Has your classmate ever been administered arteriography? What patients are usually administered arteriography?

**13. a. Study the models and choose the right word from the right column to complete the sentences. Give several versions if possible. Translate the sentences into Russian.**

**Models:** He knows **something** about it.
Does he know **anything** about it?
He does **not** know **anything** about it.
He knows **nothing** about it.

| | |
|---|---|
| 1. He knows ... about carotid occlusive disease. | some |
| 2. ... can detect buildups of fat deposits in the carotid arteries. | any |
| 3. Do you know ... who can detect buildups of fat deposits in the carotid arteries? | no |
| 4. Does he know ... about the new electronic system? | somebody |
| 5. Do you know ... about the diagnostic procedures for this disease? | anybody |
| 6. The procedure does not require ... dye to be injected | nobody |
| 7. The doctors say they need ... dye for this procedure. | everybody |
| 8. ... is inserted into the tube. | something |
| 9. Have you inserted ... in the tube? | anything |
| 10. Have you injected ... dye to this patient? | nothing |
| | everything |

**b. Ask your classmates**

- if they know something about the device described in the text besides the information in the text;
- if somebody in this group has seen this device/has used the device described in the text;
- if they know some procedures to detect fat and calcium deposits in arteries

**14. Revise the text and compare the two methods of detection of calcium and fat deposits in arteries, using the words from the right column.**

| | |
|---|---|
| | safer than |
| | quicker than |
| by means of the Oculoplethysmograph | more expensive than |
| | less expensive than |
| by means of arteriogram procedure | not so safe as |
| | not so quick as |
| | not so expensive as |

**15. a. Study the models and make up short dialogues: your classmate suggests an idea; you say it is either possible or impossible.**

**Models:**

| | |
|---|---|
| I. – I'm sure it will be cold tomorrow. | – Я уверен, что завтра будет холодно. |
| – That's very likely./Probably./Perhaps./That's very unlikely. | – Очень может быть. (Похоже, что так.)/Вероятно./Возможно./Вряд ли. (Не похоже.) |
| II. – I'm sure everything will be closed on Sunday. | – Я уверен, все будет закрыто в воскресенье. |
| – That's quite possible./Possibly./You may be right./That's impossible./That's very unlikely. | – Вполне возможно./Возможно./Возможно, вы правы./Этого не может быть./Вряд ли. |

**b. Suppose you are trying to use the Oculoplethysmograph but it does not function. Accept the following comments of your colleague as either possible or impossible. Think of reasons to support your opinion.**

1. The OPG device is out of order.
2. The OPG device is not switched on.
3. Both cups of the eye sensors are broken.
4. The cups of the eye sensors are not applied properly.
5. The ear sensors are not attached properly.
6. Electrical impulses are not transmitted from the eye sensors.

**16. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

электронная система, диагностическая система, раннее выявление, отложение жиров, отложение кальция, причина инсульта, окклюзия сонной артерии, процедура, ввести красящее вещество, в ток крови, измерить циркуляцию, рентгенография, неинвазивная система, прозрачные линзы, контактные линзы, сенсоры, приложить к, прикрепить к, мочка уха, глаз, передавать импульсы, записать импульсы, указать степень (распространенности), блокировать ток крови, от сердца к мозгу

**17. Translate the following sentences into English.**

1. Новый прибор безопаснее, но дороже. Новый прибор менее дорогой. Новый прибор такой же безопасный, как и тот, что

мы использовали раньше. Старый прибор не такой безопасный, как новый.

2. Существует много видов контрастных жидкостей, которые используют для артериографии. Существует не так много видов контрастных жидкостей, которые используют для артериографии.
3. В артериях много отложений жиров и кальция. В артериях маленького ребенка не так много отложений жиров и кальция.
4. Вводите быстрее контрастную жидкость! Не вводите эту контрастную жидкость так быстро!
5. Прикрепите сенсоры на мочки ушей!
6. Приложите сенсоры к глазам!
7. Врач уже приложил сенсоры к глазам. Сенсоры уже прикреплены к ушам.
8. Фирма представила новый прибор на прошлой неделе. Фирма уже представила новый прибор.
9. Линзы были введены вчера. Линзы уже введены.
10. Данные регулярно регистрируются. Данные всегда регистрируются. Эти данные были зарегистрированы вчера. Эти данные уже зарегистрированы.
11. Врач уже наложил сенсоры и сейчас измеряет циркуляцию крови.
12. Медицинская сестра уже ввела контрастную жидкость, и врач может начинать исследование.
13. Отложения кальция могут привести к окклюзии сонной артерии.
14. Инсульт мог быть вызван окклюзией сонной артерии.
15. Вы должны записывать электрические импульсы, которые поступают от сенсоров на мочках ушей.
16. Медицинская сестра должна была ввести контрастную жидкость десять минут тому назад.
17. Эта фирма не разрабатывает диагностические системы.
18. Данные не фиксировались последнее время.
19. Сколько контрастной жидкости введено этому пациенту?
20. Почему ток крови блокирован?
21. Какой прибор может быть использован для определения количества отложений в артериях?

22. Какую модель исследования вы выбрали?
23. Биоритмы этого пациента уже определены?
24. Кто снял сенсоры?
25. Что вы ввели этому пациенту?
26. Возьмите какой-нибудь анализатор. Здесь есть какой-нибудь анализатор?
27. У меня ничего нет для этого больного. У вас есть что-нибудь для этого больного? Найдите что-нибудь для него!
28. Здесь нет никого, кто может определить биоритмы этого больного. Здесь есть кто-нибудь, кто умеет определять биоритмы? Найдите кого-нибудь, кто умеет определять биоритмы.

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. Why is carotid occlusive disease very dangerous?
2. What is necessary to detect in case of carotid occlusive disease? Why?
3. Why is the arteriogram procedure considered harmful to the patient?
4. Why is the Oculoplethysmograph considered safer than the arteriogram procedure?

**2. Point out facts in the text which may be necessary for an advertisement of the Oculoplethysmograph.**

**3. Say what you can about a) carotid occlusive disease, and detection of its extent by means of b) the Oculoplethysmograph and c) the arteriogram procedure. Use the following words and word combinations.**

a) a buildup of, fat and calcium deposits, carotid arteries, a cause of a disease, to cause a disease, a stroke, to block the passage of blood, from the heart to the brain

b) a noninvasive system, transparent lens-style cups, contact lens-style cups, sensors, to apply to, to attach to, ear lobes, both eyes, to transmit, electrical impulses, to record, to indicate, the extent of, buildups of, fat and calcium deposits

c) to inject a dye, to make X-ray photography, into a blood stream

**4. Give examples of invasive and noninvasive diagnostic systems in medicine; express your opinion of them.**

**5. a. Suppose you are testing the OPG device with your colleagues. Make a suggestion on the order of actions; ask for permission to participate in the test, say what you will do; make a request to help you to prepare a patient for the procedure; accept as possible/impossible the diagnosis made by your colleague.**

**b. Make up a conversation including the components in (a).**

# Unit 6

*Text:* **Technique Cuts Coronary Deaths.**

*Grammar:*
1. The Past Perfect (Active, Passive Voice).
2. The Future in the Past (Active, Passive Voice).
3. The Participle (*continued*).
4. The construction **It is necessary (important,** etc.).

*Word Formation:* The suffix **-hood**; the prefix **ir-**.

*Speech Patterns:*
1. **Doubt.**
- Really?
- Are you sure?
- I doubt it.

2. **Certainty.**
- Yes, certainly.
- There is no doubt about it.

## TEXT

# TECHNIQUE CUTS CORONARY DEATHS

Dutch[1] researchers, in a report published, said they had discovered a technique that seemed to reduce dramatically[2] the number of deaths among heart attack victims.

The technique reported in the *New England Journal of Medicine,* calls for[3] immediate injection by bystanders[4] or paramedics of the drug lidocaine into the shoulder muscles of suspected victims of heart attacks. The researchers said this cuts the likelihood of[5] irregular heartbeat, a contributory cause[6] of death, six times.[7]

Dr. Bernard Lown of the Harvard University School of Public Health said the recommendation, if carried out, "will save many of those who would otherwise die".[8] It is really important to make the technique common.

## Notes

1 **Dutch** – голландский
2 **to reduce dramatically** – значительно сократить
3 **to call for ...** – призывать к (чему-л.)
4 **bystander** – свидетель
5 **this cuts the likelihood of ...** – это снижает вероятность (чего-л.)
6 **a contributory cause** – дополнительная причина
7 **six times** – *зд.* в 6 раз
8 **who would otherwise die** – кто в противном случае умер бы

## Vocabulary to the Text

**attack** [ə'tæk] *n* приступ
**coronary** ['kɔrənərɪ] *a* коронарный
**cut** [kʌt] *v* **(cut)** резать; *n* надрез
**death** [deθ] *n* смерть
**discover** [dɪs'kʌvə] *v* обнаруживать, делать открытия
**drug** [drʌg] *n* лекарственный препарат
**heartbeat** ['hɑ:tbi:t] *n* пульсация сердца
**immediate** [ɪ'mi:djət] *a* немедленный, безотлагательный
**irregular** [ɪ'regjulə] *a* неправильный, неровный
**lidocaine** ['lɪdoukeɪn] *n* лидокаин
**muscle** ['mʌsl] *n* мускул, мышца
**paramedics** [ˌpærə'medɪks] *n pl* младший медицинский персонал
**save** [seɪv] *v* спасать
**shoulder** ['ʃouldə] *n* плечо
**suspect** [səs'pekt] *v* подозревать
**victim** ['vɪktɪm] *n* жертва

# COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and find out:**

- what drug is recommended;
- if the drug relieves the attack (снимает приступ) or prevents irregular heartbeat

# VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-hood, -er, -ic, -al, -ly, -ion, -ory,* the prefix *ir-;* point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

ladyhood, babyhood, motherhood, childhood, manhood; irresponsible, irresistible, irrespective, irremovable, irrelevant

**c. Reproduce the word combinations with *injection, contributory, recommendation* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. a. Find in the text the sentences with the words *published, said, reported, suspected* and translate them into Russian.**

**b. Translate the following sentences into Russian using a dictionary. Pay attention to the way the italicized words are translated.**

1. The commonly *expressed* opinion that modern skin tests of food sensitivity are unreliable because of false positive and negative results was never supported by data.
2. The enteropathies in infants *associated* with milk are transient.
3. These drugs have been highly valuable tools for neuropharmacologists *involved* in neuroreceptor studies.
4. All *involved* in assessing and treating infertile couples must, moreover, be aware of the cultural, religious, and legal prescriptions concerning sexual activities.
5. Neurotic depression *treated* appropriately and promptly with firm directive and supportive psychotherapy, as well as with antidepressant drugs, has an excellent prognosis.

**3. a. Study the way of translating Participles II into Russian in the sentence below.**

The recommendation (при каком условии?), **if carried out**, will save many of those who would otherwise die.

*Если рекомендацию выполнят*, это спасет многих, кто в противном случае умер бы.

**b. Translate the following sentences into Russian using a dictionary, pay attention to the way the italicized words are translated.**

1. If *undetected* and *untreated* mild hearing loss may give rise in some children to psychological, medical and educational problems.
2. Chloraseptic is not used for children under three unless *directed* by his physician.
3. When *tested* as a treatment for osteoporosis, the drug produced severe side-effects like stomach-bleeding.

4. Once *established,* the causes of the disease must be eliminated.
5. If *used* in conditions *unrelated* to the eye, this medication may cause cataract.

**4. Find in the text word combinations below and justify the use or absence of articles proceeding from the context.**

Dutch researchers, the researchers said, had discovered a technique, the technique reported, the recommendation

**5. Point out the predicates in the text; justify the use of the Present Indefinite and Past Indefinite.**

**6. Translate the sentences into Russian; point out the parts of the sentences which provide the meaning of uncertainty.**

1. Dutch researchers in a report published said they had discovered a technique that seemed to dramatically reduce the number of deaths among heart attack victims.
2. Dr. Bernard Lown of the Harvard University School of Public Health said the recommendation, if carried out, "will save many of those who would otherwise die".

**7. Use the verbs in brackets in suitable forms to complete the sentences; give several versions if possible; translate the sentences into Russian.**

1. Last year Dutch researchers (to discover) a technique to reduce the number of deaths among heart attack victims.
2. Recently Dutch researchers (to discover) a technique to reduce the number of deaths among heart attack victims.
3. The number of deaths among heart attack victims (to cut) six times last year.
4. The number of deaths among heart attack victims (to cut) recently due to a new treatment technique.
5. The recommendation (must, to carry out) to prevent complications.
6. A lot of heart attack victims (can, to save) nowadays.
7. In this article Dutch researchers (to call) for immediate injection of the drug lidocaine into the shoulder muscles of suspected victims of heart attacks.
8. Any paramedic (can, to make) an injection into the shoulder muscle.

**8. Study the models and say that one of the actions described below is prior to the other or one had completed the action or it had been completed by some moment in the past. Translate the sentences into Russian.**

**Models:** I. When we **came** they **had finished** their discussion.

II. When we **came** their discussion **had been finished.**

1. The researchers described a new technique. The new technique reduced the number of deaths among heart attack victims.
2. The patient with a heart attack survived. The patient with a heart attack was given an injection of lidocaine into the shoulder muscles in time.
3. The patient had irregular heartbeat for a long time. Death was caused by irregular heartbeat.
4. The patient was saved. The doctor's recommendation was carried out.
5. He was saved. He was given an injection of lidocaine into the shoulder muscles when suspected of a heart attack.

**9. Study the models and say that the actions described below had not been done or that someone had not done the actions by a certain moment in the past. Translate the sentences into Russian.**

**Models:** I. The scientist **said** he **had not published** the data obtained a year before.

II. The scientist **said** the data **had not been published** yet.

1. The journal had published the report before the letter with your proposal arrived.
2. They said at the conference that the new technique had reduced the number of deaths among heart attack victims.
3. The doctor said the injection of lidocaine had cut the likelihood of irregular heartbeat.
4. The doctor said at the morning conference that irregular heartbeat had caused death in this case.
5. The patient said the recommendation of the doctor had been carried out.
6. The researchers said the new technique had saved a lot of patients.
7. The researchers said that these patients had been saved due to a new technique.

**10. Study the models and ask if one had done the actions described in ex. 9 or the actions had been done by a certain moment in the past.**

**Models:** **Had** they **discussed** the article by 2 p.m. yesterday?
**Had** the drug **caused** side effects as he said?

**11. Study the models (pay attention to word order in the clauses) to do the tasks below.**

**Models:** **Did** you **know who had translated** the article?
**Had** he **translated** the article before you **came**?

**a. Ask your classmates**

- if Dutch researchers said they had discovered a new technique;
- if your classmate had heard of the Dutch technique before he/she read the text "Technique Cuts Coronary Deaths";
- if lidocaine had been used for heart attack victims before Dutch researchers discovered the technique;
- if the Dutch researchers said the new technique had reduced the number of deaths.

**b. Revise the text and make up sentences to answer the questions in (a).**

**12. a. Study the models and say that one thought or said the following in the past.**

**Models:** I. We **think** we **shall leave** for London tomorrow.
She **thinks** she **will leave** for London tomorrow.
I **think** the letter **will be sent** tomorrow.

II. We **thought** we **should leave** for London soon.
She **thought** she **would leave** for London soon.
I **thought** the letter **would be sent** immediately.

1. The researchers say they will unveil a new device soon.
2. The doctor says he will remove the polyp by means of laser.
3. I think the period of treatment will be reduced.
4. The doctor thinks this stone will be shattered quickly.
5. The doctor says the shattered stone will be passed through the urinary tract.
6. The researchers think a new test to detect the body's biological rhythms will be developed soon.
7. The researchers say the new diagnostic system will be safer and less expensive.
8. The doctor thinks an injection of lidocaine will cut likelihood of irregular heartbeat.

**b. Ask your classmate about his/her plans for the summer. Reveal your classmate's plans beginning with *He/she said he/she would ...* .**

**13. a. Study the model and say that the following is necessary, possible, impossible, important, difficult, easy, simple; give reasons why it is so.**

**Model:** It is necessary/possible/impossible/important/difficult/easy/simple to do that
Необходимо/можно/невозможно/важно/трудно/легко/просто сделать это.

to detect the body's biological rhythms, to prevent stroke, to prevent a heart attack, to detect carotid occlusive disease, to develop noninvasive methods of diagnostics, to change a diet, to cure stomach ulcer, to prevent irregular heartbeat

**b. Find out what is necessary, possible, important, difficult, easy, simple for your classmates at the moment.**

**14. a. Study the model and make up short dialogues: your classmate expresses a statement, you express either certainty or doubt about it.**

**Model:**

- The results of the experiment are hopeful.
- Are they really?/Are you sure?/I doubt it./Yes, certainly./There is no doubt about it.

- Результаты эксперимента многообещающие.
- В самом деле?/Вы уверены?/Сомневаюсь./Да, безусловно./Нет никаких сомнений.

**b. Suppose you are discussing the Dutch technique described in the text with your colleagues, express certainty or doubt about the following statements.**

1. Dutch researchers are the first to use lidocaine to prevent irregular heartbeat.
2. Lidocaine injections can dramatically reduce the number of deaths among heart victims.
3. To prevent irregular heartbeat it is not necessary to make a lidocaine injection immediately.
4. Irregular heartbeat is a contributory cause of death.
5. The recommendation, if carried out, will save many of those who would otherwise die.

**15. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

открыть методику, сократить число смертей, пациент с сердечным приступом, призывать к, инъекция какого-либо препарата, в мышцу, неровный пульс, дополнительная причина, причина чего-либо, выполнять рекомендации, спасти пациента

**16. Translate the following sentences into English.**

1. Медсестра знает, как вводить контрастную жидкость. Медсестра сейчас вводит контрастную жидкость. Когда я вошел, медсестра вводила контрастную жидкость. Медсестра ввела контрастную жидкость десять минут тому назад. Медсестра уже ввела контрастную жидкость. Когда врач пришел, медсестра уже ввела контрастную жидкость. Медсестра введет контрастную жидкость позже. Медсестра сказала, что введет контрастную жидкость позже.
2. Контрастное вещество введено. Контрастное вещество уже ввели. Контрастное вещество было введено десять минут тому назад. Контрастное вещество будет введено позже. Сейчас вводят контрастное вещество. Когда врач пришел, контрастное вещество уже ввели. Медсестра сказала, что контрастное вещество будет введено позже.
3. Эта методика должна помочь предотвратить приступ. Эта методика должна была помочь предотвратить приступ.
4. Вам нельзя менять диету. Врач не должен был менять вашу диету.
5. Я не могу опубликовать эти данные. Я не мог опубликовать эти данные.
6. Некоторые пациенты не выполняют рекомендации врача.
7. Здесь не много пациентов, которые перенесли инсульт.
8. В этом приборе нет сенсоров.
9. Он не лечит такие болезни.
10. Пациента не спасли.
11. Я еще не видел такой прибор.
12. Не делайте эту инъекцию в лопатку.
13. Вы знаете более эффективные методы лечения таких заболеваний?
14. Кто-нибудь выполнил все рекомендации врача?
15. Почему вы не выполнили рекомендации врача?
16. Почему медсестра не сделала инъекцию утром?

17. Сколько инъекций было сделано до повторного обследования этого пациента?
18. Что надо было сделать, чтобы спасти этого пациента?
19. Кто делал инъекцию, когда вы вошли?
20. Вам придется разработать новый тест! – В самом деле?/Возможно.
21. Необходимо изменить метод лечения этого больного. – Возможно, вы правы./Это невозможно.
22. Вы сделаете укол этому больному? – Да, конечно.

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. What medical problem is considered important in the text?
2. Why is irregular heartbeat considered dangerous?
3. What technique is suggested in the text?
4. What effect does the technique give?

**2. Point out facts in the text which illustrate the efficiency of the new technique.**

**3. Say what you can about a) causes of death in patients with heart diseases and b) the technique of death prevention described in the text using the following words and word combinations.**

a) heart attack, irregular heartbeat, a contributory cause of death, to block, blood flow, deposits in arteries, an occlusive disease, occlusion

b) an injection of lidocaine, to make an injection, into the shoulder muscles, immediately, to cut the likelihood, irregular heartbeats, a contributory cause, death, to save, to reduce the number of, to enable doctors

**4. Give examples of first aid to heart attack victims; comment on the mechanisms of such aid.**

**5. a. Suppose you and your colleagues are rendering first aid to a heart attack victim. Make a suggestion on the drug choice; ask a paramedic to make an injection; explain how to make it; express certainty or doubt about your colleague's opinion of the patient's condition after the injection.**

**b. Make up a conversation including the components in (a).**

# Unit 7

*Text:* **Drug is Tested on Lung Embolism.**

*Grammar:* 1. The Sequence of Tenses.
2. **if-, when**-clauses.
3. The Gerund (*continued*).
4. **another, (the) other.**

*Word Formation:* The suffixes **-ish, -ism.**

*Speech Patterns:* **Like/Dislike.**

– Do you like it/doing it?

A. – I like it (very much, a lot).
– I like it very much indeed.

B. – I don't like it.
– I'm not keen on it.
– I don't care for it.
– I hate it.

## TEXT

# DRUG IS TESTED ON LUNG EMBOLISM

BOSTON. Researchers say an experimental drug produced by genetic engineering[1] technology appears highly effective in dissolving blood clots in the lung, a problem that causes the deaths of 50,000 people a year in the United States.

If research confirms the initial findings, scientists said the drug would reduce the number of deaths from pulmonary embolism and thus settle the problem to a certain extent. The drug, called PA – human tissue plasminogen activator, dis-

solved clots in 37 of 40 patients treated at Brigham and Women's Hospital here, according to a report[2] in the British medical journal *Lancet.*

"It is extremely effective[3] and appears to be quite safe," said Dr. Eugene Braunwald, chief of medicine at the hospital. "We think it's a significant improvement over[4] what's available for a very common problem.[5] Another drug, streptokinase, is used to dissolve clots but is only effective in about half the patients and often causes excessive bleeding."

### Notes

1 **genetic engineering** – генная инженерия
2 **according to a report** – согласно сообщению
3 **extremely effective** – чрезвычайно эффективный
4 **a significant improvement over smth.** – значительное улучшение чего-л.
5 **what's available for a very common problem** – то, что есть в наличии для очень распространенного заболевания

### Vocabulary to the Text

**bleed** [bli:d] **(bled)** *v* кровоточить
**cause** [kɔ:z] *v* быть причиной, вызывать
**clot** [klɔt] *n* сгусток, тромб
**confirm** [kən'fə:m] *v* подтверждать
**dissolve** [di'zɔlv] *v* растворять(ся); разжижать(ся)
**embolism** ['embəlizəm] *n* эмболия
**excessive** [ik'sesiv] *a* чрезмерный
**half** [hɑ:f] *n* половина
**initial** [i'niʃəl] *a* первоначальный
**lung** [lʌŋ] *n* легкое (*анатом.*)
**plasminogen** [ˌplæz'minoudʒən] *n* плазминоген
**pulmonary** ['pʌlmənəri] *a* легочный
**settle** ['setl] *v* уладить
**streptokinase** [ˌstreptou'kaineiz] *n* стрептокиназа
**test** [test] *v* апробировать

## COMPREHENSION TASKS

1. **Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

2. **Study the Notes and Vocabulary to the Text. Read the text and find out:**
   - what new drug is used for lung embolism;
   - what drug is the new one compared with;
   - the action of the drug discussed;
   - if the new drug is effective and safe

## VOCABULARY AND GRAMMAR EXERCISES

1. **a. Pick out in the text the words with the suffixes *-ish, -ism, -er, -or, -al, -ly, -ive, -ary, -ment, -ic* and point out their stems. Translate the words into Russian.**

   **b. Point out the stems in the derived words below; translate the words into Russian.**

   English, Swedish, Danish, Scottish, foolish, childish; blackish, reddish, bluish, strongish, dampish, thickish; patriotism, bureaucratism, magnetism, Marxism, realism, negativism, classicism, individualism

   **c. Reproduce the word combinations with *experimental, genetic, highly, extremely, initial, pulmonary, activator, British, improvement, excessive* from the text; translate them into Russian. Make up sentences of your own with them.**

2. **Find in the text the sentences with the words *produced, called, dissolved, treated* and translate them into Russian.**

3. **Find in the text the sentences with the word combinations *appears effective* and *appears to be safe,* point out the difference in the constructions; translate them into Russian.**

4. **Find in the text the sentence with *to dissolve* and translate it into Russian.**

5. **a. Find in the text the sentences with the words *engineering, dissolving* and translate them into Russian.**

   **b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words and word combinations are translated.**

1. Safe motherhood initiatives should be a means and spur to the education that fits women to earn an income and improve family well-being – education in work skills, education in nutrition, education *in timing* pregnancies, and education in family health care.
2. A significant percentage survived with residual morbidity but we had no facilities *for continuing* care.
3. The crucial question *in determining* the usefulness of skin tests for detection of food sensitivity is: What degree of sensitivity is likely to be associated with clinical symptoms?
4. Lack of clarity *in making* this distinction has made the literature *confusing* and has led to erroneous interpretation of the significance of skin tests and serum antibodies.
5. Researchers announced a *promising* new way *of increasing* bone density that seems to reverse the effects of spinal osteoporosis.

6. Rehabilitation is an important part of medical care, *beginning* at the onset of illness or injury and aimed at *helping* people to live as normally as possible.

**6. a. Study the way of translating the Gerund into Russian in the sentence below.**

Streptokinase often causes (что?) excessive **bleeding**.

Стрептокиназа часто вызывает сильное *кровотечение*.

**b. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. We plan to double our *lending* for population, health and nutrition activities.
2. Women in developing countries begin *child-bearing* much earlier, and have several pregnancies.
3. In many of the poorest nations 80% of the women over 25 have had no *schooling* at all.
4. Extensive clinical and basic science investigations of these drugs over the last two decades have greatly enhanced our *understanding* of the pharmacotherapy of emotional disorders.
5. This paper presents current *understanding* of the pharmacokinetic properties of benzodiazepines and the possible relation of pharmacokinetic differences among drugs to differences in clinical action.
6. When the drug was tested years ago as a treatment for osteoporosis, it produced severe side effects such as stomach *bleeding*.

**7. Find in the text the word combinations below and justify the use or absence of articles proceeding from the context.**

an experimental drug, the drug could reduce, the drug called PA, a problem that causes, settle the problem, a very common problem

**8. Point out the predicates in the text; justify the use of Present and Past forms.**

**9. Find in the text the sentences with the words *highly, extremely, significant, excessive;* say if the word combinations with them provide positive or negative meaning.**

**10. Find in the text the sentences with the preposition *in,* translate into Russian the word combinations with *in* proceeding from the context.**

**11. Study the models and say the following in the past.**

**Models:** I. I **knew** she **played** the violin very well.

II. I **knew** she **was playing** the violin and did not want to be interrupted.

III. I **knew** she **had played** the violin at the concert the previous night.

IV. I **knew** she **would play** the violin at my birthday party.

1. Dutch researchers say they have discovered a technique that seems to reduce the number of deaths among heart attack victims.
2. The nurse says she has injected lidocaine to the patient.
3. The researchers say the technique will cut the likelihood of irregular heartbeat.
4. The doctor says he is passing the stone through the urinary tract.
5. The doctor says he knows how to cure stomach ulcer.
6. The patient knows that the changes in his colon are reversed.
7. The doctor says colon cancer has been foreshadowed by a change in the lining of the colon.
8. They say the OPG device will be used for stroke diagnosis.
9. We know you can detect the body's biological rhythms.
10. She knows she will be able to determine the date of ovulation.
11. She knows she has to attach sensors to ear lobes.
12. She knows she will have to put the sponge saturated with chemical reagents in the analyser.

**12. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

1. The experimental drug (to produce) by genetic engineering technology.
2. The experimental drug (to produce) by genetic engineering technology several years ago.
3. Recently a new experimental drug (to produce) by genetic engineering technology.
4. Researchers said this experimental drug (to produce) by genetic engineering technology.
5. The new drug (to dissolve) blood clots in the lung without causing side effects such as bleeding.
6. The new drug (to dissolve) a blood clot in the lung of the patient, so no operation is necessary.
7. The doctor said the drug (to dissolve) the blood clot.
8. The doctor said the drug (to dissolve) the blood clot and no operation was necessary.

9. The research (to confirm) the initial findings and the results can (to publish) now.
10. Scientists said the drug (to reduce) the number of deaths from pulmonary embolism.
11. The drug (to dissolve) clots in 37 of 40 patients.
12. The patients (to treat) with the clot dissolving drug.
13. Another drug (to use) to dissolve clots but it (to cause) excessive bleeding.
14. Chief of medicine at the hospital (to think) it is a significant improvement.

**13. Give full affirmative and negative answers to the questions below; mind the tense forms used in your answers.**

1. Are researchers testing a drug at the moment?
2. Were researchers testing a chemical reagent when the chief entered the laboratory?
3. Have researchers produced a highly effective drug?
4. Was the new drug effective in dissolving blood clots?
5. Does the research confirm the initial findings?
6. Did the previous research confirm the initial findings?
7. Has the research confirmed the initial findings?
8. Does lung embolism often cause death?
9. Has the new drug reduced the number of deaths from pulmonary embolism?
10. Is the drug called PA?
11. Is the new drug highly effective?
12. Was the new drug quite safe?
13. Had the new drug been used for lung embolism before the experimental data were published?
14. Has the drug caused bleeding?
15. Could the number of deaths of lung embolism be reduced?

**14. Ask as many questions as possible about the sentences below.**

1. Researchers have produced a new drug using genetic engineering technology.
2. The new drug can be used for dissolving blood clots.
3. Lung embolism causes the deaths of 50,000 people a year in the United States.

4. The research has confirmed the initial findings.
5. The drug could reduce the number of deaths from pulmonary embolism.
6. The drug called PA is human tissue plasminogen activator.
7. The drug has dissolved clots in 37 of 40 patients.
8. The patients were treated in a hospital in Boston.
9. The report was published in the British medical journal *Lancet*.
10. Another drug is only effective in about half the patients.
11. Another drug may cause excessive bleeding.

**15. a. Study the models and join the sentences below in one; translate the sentences into Russian.**

**Models:** I. He **will come** back. I **shall ring** you **up**.
I **shall ring** you **up** (когда?) when he **comes back**.
I **shall ring** you **up** (в каком случае?) if he **comes back**.

II. He **will come back**. I **shall tell** you.
I **shall tell** you (что?) when he **will come back**.
I **shall tell** you later (что?) if he **will come back**.

1. We shall see. The alliance between doctors and physicists will lead to a new method of treatment. (if)
2. I shall tell you. The polyp in your stomach will be treated surgically. (if)
3. I shall see. I shall be able to cure your stomach ulcer. (when)
4. I shall tell you. I shall be able to use laser. (when)
5. The researchers will publish the data. The researchers will consider it reasonable. (when) (if)
6. The stones will be shattered. The doctors will have a new laser device. (when) (if)
7. The diet will be changed. The doctor will recommend it. (when) (if)
8. She will detect your biological rhythms. You will ask her to do that. (when) (if)
9. The OPG system will detect carotid occlusive disease. You will use it correctly. (if)
10. The technique will cut the likelihood of irregular heartbeat. You will carry out the recommendation. (if)
11. I shall tell you. You will have to attach sensors to the ear lobes. (when)

12. The experimental findings will show. The new drug will be able to reduce the number of deaths. (if)

**b. Say**

- if you will know by Monday when you will have your first/last exam in January/June;
- if you will know by Monday when you will have your winter/summer vacation;
- if you will be told today if you will have a grammar test/a conversational class next time;
- if you will be in when your parents come home tonight;
- if you will be in the classroom when your teacher comes;
- that you will translate the article if you are given a good dictionary;
- that you will read this article if it is interesting.

**16. Study the models (pay attention to the word order in the clauses) to do the tasks below.**

**Models:** I. What **will** you do if **you are late** for the train?
II. **Do** you **know** when **the train will arrive**?

**a. Ask your classmate**

- what he/she will do if he/she does not pass exams in January/June;
- what he/she will do if the weather is bad/good on Sunday;
- what he/she will do when he/she passes exams in January/June;
- what he/she will do when the classes are over today/tomorrow/on Saturday;
- if he/she will know by Monday when he/she will have his/her grammar test;
- if he/she will know by Monday when he/she will have to take an exam in English;
- if he/she will be told today if he/she will have a conversational class next time.

**b. Reveal the answers obtained (полученные) in (a) to your classmates.**

**17. a. Study the models and fill in the blanks with either *another* or *the other* to complete the sentences below; justify your choice.**

**Models:** I. I don't like **this book**. Give me **another one**.

II. There are **two** pens on the table. **One** is red, **the other** is blue.

1. There are two drugs dissolving clots. One of them is PA, ... is streptokinase.
2. Streptokinase is not very effective and causes side effects .... drug should be developed.
3. There are two patients with pulmonary clots here. One has passed a course of treatment of PA, ... has been operated on.
4. This patient does not like to speak about his condition. Ask ... one!
5. Of those two drugs one is highly effective, but causes side effects, ... is quite safe but is only effective in about half the patients.
6. This drug is not quite safe. Try ... one!

**b. Make up sentences of your own using the words *another, the other.***

**c. Make up short dialogues using the phrases:**

| | |
|---|---|
| Give me another ... | Give me the other ... |
| Take another ... | Take the other ... |
| Ask for another ... | Ask for the other ... |

**18. a. Study the models and make up short dialogues; find out what your classmate likes and dislikes.**

**Models:**

| | |
|---|---|
| – Do you like books/reading books? | – Вы любите книги/читать книги? |
| – I do (very much, a lot)./I like it very much (indeed)./I don't like it./I'm not keen on it./I don't care for it./I hate it./I can't stand it. | – Да (очень)./Мне это очень нравится./Мне это не нравится./Я не увлекаюсь этим./Меня это не интересует./Мне это очень не нравится./Я терпеть это не могу. |

**b. Suppose you are discussing the article "Drug is Tested on Lung Embolism" with your colleagues. Express your likes and dislikes answering the following questions.**

1. Do you like the idea of the researchers at Brigham and Women's Hospital?
2. Do you like the British medical journal *Lancet*?
3. Are you interested in pulmonary problems?
4. Are you interested in genetic engineering?

**19. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

экспериментальный препарат, высокоэффективный, чрезвычайно эффективный, вполне безопасный, растворить тромб, являться причиной смерти, число смертных случаев, подтвердить первоначальные данные, смерть от, легочная эмболия, согласно докладу, в журнале, мы думаем, значительное улучшение, обычная проблема, у половины пациентов, около половины пациентов, сильное кровотечение, быть в наличии

**20. Translate the following sentences into English.**

1. Этот препарат чрезвычайно эффективный и вполне безопасный. Другой (из двух) препарат тоже эффективный и более безопасный.
2. Необходимо попробовать другой (еще один) препарат.
3. Мы используем то лекарство, которое имеется в наличии.
4. Существует много способов раннего выявления этого заболевания.
5. У меня много ценной информации по этому вопросу.
6. Этот камень не такой большой, как тот.
7. Эти данные менее ценные.
8. Смертность от этого заболевания снизилась. Смертность от этого заболевания была снижена в два раза. Новый метод лечения снизил смертность от этого заболевания.
9. В этом случае врач использует неинвазивный метод исследования.
10. Только новые исследования могут (смогут, могли) подтвердить первоначальные данные.
11. Новые исследования должны (должны были, должны будут) подтвердить первоначальный диагноз.
12. Я думал, что это общеизвестная проблема.
13. Мы думали, что сможем подтвердить вероятность сердечного приступа при приеме этого препарата.
14. Мы не думали, что этот препарат может вызвать кровотечение.
15. Мы знали, что этот препарат растворяет тромбы в 37 из 40 случаев.
16. После того как эти данные были подтверждены, мы рекомендовали нашу методику к использованию в практической медицине.

17. Если они не раздробят камень, они не смогут вывести его через мочевые протоки. Интересно, смогут ли они раздробить камень. Я не знаю, сможем ли мы вывести этот камень через мочевые протоки.
18. Они смогут вылечить язву, когда научатся применять лазерные приборы. Я не знаю, когда они научатся пользоваться этим лазерным прибором.
19. Я бы лучше проанализировала ваш обзор, чем читать эти статьи.
20. Не думаю, что вам следует делать еще один укол этому пациенту. – Спасибо за совет.
21. Почему бы вам не разработать неинвазивный диагностический метод? – Хорошая мысль! Обещаю заняться этим.
22. Можно мне попытаться установить причину инсульта? – Конечно!
23. Развитие генной инженерии позволило создать много эффективных препаратов. – Вполне возможно.
24. Как передавались электрические импульсы?
25. Что вызвало обильное кровотечение?
26. Почему этот препарат эффективен только в половине случаев?
27. Сколько пациентов принимают сейчас этот препарат?
28. Какой препарат оказался более эффективным?
29. Какой препарат оказался более безопасным?
30. Почему вы не смогли подтвердить первоначальный диагноз?

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. Why is pulmonary embolism considered very dangerous?
2. What drug is recommended for pulmonary embolism?
3. What activator is the drug called PA?
4. What technology made the production of PA possible?
5. Why is the drug called PA considered better than streptokinase?

**2. Point out facts in the text to prove that the drug described is "a significant improvement over what's available for a very common problem" – lung embolism.**

**3. Say what you can about a) lung embolism, b) the drug called PA, c) the drug called streptokinase. Use the following words and word combinations.**

a) lung/pulmonary embolism, a blood clot, to cause death, the number of deaths, 50,000 people a year in the United States, to dissolve clots, to reduce the number of deaths

b) pulmonary embolism, to reduce the number of deaths from, to dissolve blood clots, clots in the lungs, highly effective in dissolving, quite safe, human tissue, plasminogen activator, to be used

c) pulmonary embolism, to dissolve blood clots, clots in the lungs, to be used, effective in about half the patients, to cause side effects, excessive bleeding

**4. Say what factors you must take into consideration choosing a drug for a patient.**

**5. a. Suppose you work in the research team investigating the drug described in the text. Suggest how to advertise the drug, what points to include into the advertisement; express certainty that the drug will become popular very soon, give your reasons.**

**b. Make up a conversation including the components in (a).**

# Unit 8

*Text:* **Amount of Blood for Tests Assailed.**

*Grammar:*
1. Modal Verbs (with the Passive Voice).
2. If-clauses (*continued*).
3. The Participle (*revision*).
4. The Gerund (*revision*).
5. The Infinitive (*revision*).

*Word Formation:* (*revision*).

*Speech Patterns:*

1. **Invitation.**
– Would you like to (do) ... ?

*A.* – I'd love to! I'd like to very much!
– I wish I could! If you'd like me to.

*B.* – I'm afraid/Sorry I can't.
– I'd better/Rather not.
– No, thanks. Not now.

2. **Requests.**
– Could you ...? Would you ...?

3. **Supposition.**
– Suppose ... What would you do?

## TEXT

# AMOUNT OF BLOOD FOR TESTS ASSAILED

BOSTON. Amount of blood for tests must be reduced. Doctors in the United States often take too much blood for tests, exposing hospital patients to the risks[1] of blood loss, hepatitis and problems accompanying replacement of lost blood, two

Boston doctors report in *The New England Journal of Medicine.*

Drs. Bruce Smoller and Margot Kruskall found that the average adult[2] in intensive care[3] lost nearly two pints (0.95 liters) of blood to laboratory tests – about 20 per cent of the blood supply. Doctors will work to reduce the amount of blood taken from patients.

### Notes

1 **to expose patients to the risks** – подвергать пациентов опасности
2 **the average adult** – в среднем взрослый пациент
3 **intensive care** – интенсивная терапия

### Vocabulary to the Text

**accompany** [ə'kʌmpənɪ] *v* сопутствовать
**amount** [ə'maunt] *n* количество
**assail** [ə'seɪl] *v* атаковать
**hepatitis** [ˌhepə'taɪtɪs] *n* гепатит
**lose** [lu:z] **(lost)** *v* терять
**loss** [lɔs] *n* потеря
**replacement** [rɪ'pleɪsmənt] *n* замена
**supply** [sə'plaɪ] *n* поставка; снабжение

## COMPREHENSION TASKS

1. **Translate the title of the text into Russian. What problem is supposed to be considered in the text?**
2. **Study the Notes and Vocabulary to the Text. Read the text and point out: the risks of blood tests; the amount of blood lost in intensive care.**

## VOCABULARY AND GRAMMAR EXERCISES

1. **a. Pick out in the text the words with the suffixes *-ment, -ive* and point out their stems. Translate the words into Russian.**

   **b. Reproduce the word combinations with *replacement, intensive* from the text; translate them into Russian. Make up sentences of your own with them.**

2. **a. Find in the text the sentence with *to reduce* and translate it into Russian.**

   **b. Find in the text the sentences with the words *exposing, accompanying* and translate them into Russian proceeding from the functions of the words in the sentences.**

   **c. Find in the text the sentences with *lost* (2), *taken* and translate them into Russian proceeding from the functions of the words in the sentences.**

**d. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. Benzodiazepines have *become* the most widely *used* group of medications in the treatment of anxiety and sleep disorders.
2. Through *controlled* studies we have *learnt* much about the nature and characteristics of the symptoms of stomach ulcer and their possible response to drug treatment.
3. The *following* approaches to classification of benzodiazepines attempt *to incorporate* some of their most important properties.
4. Dentists *providing* treatment in their own surgeries are *paid* on a prescribed scale of fees.
5. Ophthalmic medical practitioners and ophthalmic opticians *taking* part in the general ophthalmic service receive *approved* fees for each sight test *made*; opticians who dispense spectacles are *paid* according to the number and type of pairs *supplied.*
6. District nurses give *skilled nursing* care to people at home or elsewhere outside hospital.
7. Special preventive health services, *including* free dental care, are available for expectant and *nursing* mothers and young children.
8. He made the measurements while his subjects were *relaxing*, then after *asking* them to imagine themselves in stressful situations.
9. Several new drugs were *waiting* to be *tested, including* one *based* on a plant *used* in China 20 centuries ago.

**3. Find in the text the word combinations below and justify the absence of articles proceeding from the context.**

hospital patients, taken from patients, blood for tests, laboratory tests

**4. Point out the predicates in the text; justify the use of the Present and Past Indefinite.**

**5. Point out in the sentence below the words which express approximation.**

Drs. Bruce Smoller and Margot Kruskall found that the average adult in intensive care lost nearly two pints (0.95 litres) of blood to laboratory tests – about 20 per cent of the blood supply.

**6. Find in the text the sentences with the preposition *to* (2), translate into Russian the word combinations with *to* proceeding from the context.**

**7. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

1. Doctors often (to take) too much blood for tests.
2. The nurse said blood for test (to take) in the morning.
3. A lot of blood (to take) for tests from this patient recently.
4. Blood for test (to take) in the morning.
5. Doctors must not (to expose) their patients to any risks.
6. This patient (to expose) to the risks of blood loss several times lately.
7. The patient in the intensive care (to lose) too much blood.
8. At the moment doctors (to work) to reduce the amount of blood taken from patients for tests.
9. The researchers said they (to work) to reduce the amount of blood taken for tests.

**8. Give full affirmative and negative answers to the questions below; mind the tense forms used in your answers.**

1. Is the nurse taking blood for a test from the patient at the moment?
2. Was the nurse taking blood from the patient when the doctor entered the laboratory?
3. Do nurses take much blood for such tests?
4. Does the nurse often take blood from this patient?
5. Did the nurse take blood from this patient in the morning?
6. Will the nurse take much blood from the patient for this test?
7. Has this patient lost much blood?
8. Is the amount of blood usually taken for this test reduced?
9. Was blood taken for this test carefully?
10. Has blood been taken several times from this patient?
11. Did the patient in the intensive care lose two pints of blood?
12. Will doctors work to reduce the amount of blood taken from patients for tests?
13. Does hepatitis often accompany replacement of lost blood?

**9. Ask as many questions as possible about the sentences below.**

1. Doctors in the United States often take too much blood for tests.
2. Doctors in the United States sometimes expose patients to the risks of blood loss unnecessarily.
3. Hepatitis may accompany replacement of lost blood.

4. The average adult in intensive care lost nearly two pints of blood to laboratory tests.
5. Two pints of blood compose 20 per cent of blood supply.
6. Doctors are working to reduce the amount of blood taken from patients.

**10. a. Study the models and say that the following can/could be done, must/had to be done.**

**Models:** I. This article **can be translated** without a dictionary.
This article **could be translated** yesterday.

II. This article **must be translated** today.
This article **had to be translated** yesterday.

1. A copper vapour laser is used to treat stomach ulcers.
2. Laser is used to stop haemorrhage.
3. The device is developed in our research laboratory.
4. The stone is shattered using shock waves.
5. Colon cancer is prevented by a calcium drug.
6. The concentration of enzymes is measured by this analyser.
7. The sensors are attached to the eyes and ears.
8. Electrical impulses are transmitted from the eyes and ears.
9. The number of deaths among heart attack victims is reduced.
10. The new drug for pulmonary embolism is tested.
11. Lost blood is replaced.

**b. Say what**

- can be done in class today;
- must be done in class today;
- could be done in class last time;
- had to be done in class last time

**c. To correct and specify (чтобы исправить и уточнить) your idea expressed in (b) ask your teacher about that.**

**Model:** What **can/could/must/had to** be done in class today/last time?

**11. Give the most suitable translation of *must be.***

*должен быть, надо, должно быть*

1. The book *must be* read by all.
2. The poem *must be* learnt by heart.

3. The article *must be* translated at once.
4. The tradition *must be* followed.
5. The letter *must be* read again.
6. She *must be* about 25.
7. The weather *must be* fine today.
8. He *must be* waiting for you.
9. She *must be* late.
10. He *must be* in the office at the moment.

**12. a. Study the models and say what might (могло бы) happen if some actions were or were not done, or one did or did not do some action.**

**Models:** I. I **should (would) be** healthier if I **did** calisthenics.
I **should (would) be** healthier if I **did not smoke.**
He **would be** healthier if he **did** calisthenics.
He **would be** healthier if he **did not smoke.**

II. I **should (would) be** happy if the article **were published.**
I **should (would) be** upset if the article **were not published.**
He **would be** happy if the article **were published.**
He **would be** upset if the article **were not published.**

1. If the injection were made in time the patient (to be saved).
2. If irregular heartbeat were cut the patient (to develop a severe heart attack).
3. If irregular heartbeat were not cut the patient (to be dead) now.
4. If the researchers published their data in this journal the doctors of our department (to make a grave mistake).
5. If the researchers did not publish their data in the journal we (to start the same investigation) now.
6. If the scientists did not discover their technique the number of deaths (to be reduced).

**b. Revise the models in (a) and say about yourself what would happen if something were or were not done or one did or did not do some action.**

**c. Describe a situation and ask your classmate what he/she would do in this case.**

**Model:** *Suppose you have time to spare tonight. What would you do?*
If I had time to spare tonight, I **should (would)** ... .

**13. a. Study the model and say what you would like to do on Sunday.**

**Model:** I **would like (I'd like)** to go for a walk on Sunday.

**b. Study the model and say what you would rather do instead of the actions described below.**

**Model:** I must learn English but I **would rather** (**I'd rather**) master French.

1. I must get up at 7 a.m.
2. I must take my dog out early in the morning.
3. I must write an article.
4. I must make injections.
5. I must carry out the doctor's recommendation.
6. I must undergo a course of treatment.
7. I must work on Sunday.

**14. a. Study the models and make up short dialogues: you invite your classmate to do something, your classmate either accepts or refuses your invitation.**

**Models:**

| | |
|---|---|
| – Would you like to (do it now)? | – Вы бы хотели (сделать это сейчас)? |
| – I'd love to!/I'd like to very much. | – Да, очень! |
| – I wish I could! | – Если бы я мог! |
| – If you'd like me to. | – Если хотите. |
| – I'm afraid/sorry I can't. | – Боюсь/Сожалею, но не смогу. |
| – I'd better/rather not. | – Лучше не надо. |
| – No, thanks. | – Нет, спасибо. |
| – Not now. | – Не сейчас. |

**b. Find out what your classmates would like to ask the authors of the article "Amount of Blood for Tests Assailed" about.**

**15. a. Make up short dialogues: ask your classmate if he/she could/would do something, your classmate either agrees or disagrees to do that.**

| | |
|---|---|
| – Could/Would you (do it now)? | – Не могли бы вы сделать это сейчас?/Не сделаете ли вы это сейчас? |
| – Yes, of course. | – Да, конечно. |
| – I'm afraid/Sorry I can't. | – Боюсь/Извините, что/но не смогу. |
| – No, I can't/won't. | – Нет, не смогу/не сделаю. |

**b. Suppose you and your colleague are rendering first aid to a patient with severe blood loss. Ask your colleague if he/she could/would do something, using the word combinations below; your colleague either agrees or refuses to do that.**

to help you in blood replacement, to give you recommendations how to carry out blood replacement, to stop haemorrhage, to prepare the necessary devices for blood replacement, to do something to avoid complications after blood replacement

**16. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

слишком много, брать кровь, кровь для анализов, подвергать пациента риску, потеря крови, терять кровь, в отделении/палате интенсивной терапии, лабораторные анализы, кровоснабжение, количество крови, сократить количество чего-л., около ... процентов

**17. Translate the following sentences into English.**

1. Медсестра обычно берет кровь для анализов утром до завтрака. Медсестра взяла кровь для анализов у троих пациентов сегодня утром. Медсестра завтра возьмет кровь у троих пациентов. Сейчас медсестра берет кровь для анализа. Медсестра уже взяла кровь у троих пациентов.
2. Я думаю, что я получил очень ценную информацию. Я думал, что получил очень интересную ценную информацию.
3. Он говорит, что должен использовать этот метод исследования. Он говорит, что должен был использовать этот метод исследования. Он говорит, что ему придется использовать этот метод исследования.
4. Он думает, что сможет использовать неинвазивный метод исследования. Он думал, что сможет использовать неинвазивный метод исследования.
5. Пациенту сказали, что ему сделают десять инъекций.
6. Время лечения в интенсивной терапии нельзя сократить. Время лечения в интенсивной терапии невозможно сократить.
7. Нельзя брать так много крови у пациентов.
8. Он не сказал, что потерял много крови.
9. Исследователь сказал, что никогда раньше не использовал этот реактив.
10. Почему я должен сдавать этот анализ?
11. Сколько анализов я должен пройти до госпитализации?
12. Почему этот пациент потерял столько крови?

13. Сколько крови потерял этот пациент?
14. Почему этот пациент находится в отделении интенсивной терапии?
15. Почему мне не говорят результаты моего анализа?
16. Не могли бы вы отправить этого пациента в отделение интенсивной терапии?
17. Мне бы хотелось сделать еще один анализ крови. – Пожалуйста!
18. Вам нравится работать с этим прибором? – Да, очень.
19. Он потерял много крови. – В самом деле?
20. Давайте еще раз обследуем этого пациента. – Да, конечно.
21. Этот пациент уже два раза сдавал анализ крови. – Возможно.

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. What test is being discussed in the text?
2. Why does blood test sometimes cause great blood loss? How much blood may an adult patient lose in the intensive care?
3. What task is set in the text for hospital doctors?

**2. Point out the facts in the text to show that blood test may be dangerous.**

**3. Say what you can about a) risks of blood loss with hospital patients, b) ways of preventing such risks. Use the following words and word combinations.**

a) to be operated on, to take too much blood for tests, to lose blood to laboratory tests, nearly two pints, in the intensive care

b) to avoid surgery, to use noninvasive methods, to take blood for tests, unnecessarily, laboratory tests, for example, two pints of blood, in the intensive care, to reduce the amount of

**4. Say what medical problems may accompany blood replacement.**

**5. a. Suppose you are discussing with your colleagues the risks of blood loss and problems accompanying replacement of lost blood. Suggest how to avoid complications in case of blood replacement; propose to reduce the amount of blood taken from patients; invite them to join you in the investigation of the problem of blood loss reduction in clinical tests.**

**b. Make up a conversation including the components in (a).**

# Unit 9

*Text:* **Mend Your Broken Leg with the Other.**

*Grammar:* 1. Modal Verbs (**must, should, ought, to be** + Infinitive, **to have** + Infinitive, **can, may**).
2. **few, a few, little, a little; enough.**
3. The Participle (*revision*).
4. The Gerund (*revision*).
5. The Infinitive (*revision*).

*Word Formation:* The suffix **-an**; the prefix **un-**.

*Speech Patterns:* 1. **Agreement/Disagreement.**
– I (don't) agree (with that). I (don't) think ...

2. **Apology.**
– I'm (very/terribly) sorry. Sorry, I didn't mean ... Excuse me.
– That's all right.

3. **Request for repetition.**
– Pardon?
– I didn't catch what you said.
– Could you say it again/repeat it?

## TEXT

# MEND YOUR BROKEN LEG WITH THE OTHER

Sometimes a broken leg does not mend properly. This may be the result of bone cancer, or an accident which has damaged soft tissue in the leg very badly.[1] An American surgeon, Mr. Harold Dick, has found a few ways to avoid amputating the damaged leg – and even get the patient walking again[2] quite normally.

He takes the thin shin bone, the fibula, from the undamaged leg and grafts it in place of[3] the damaged bone. The fibula isn't strong enough to support the damaged leg immediately. The patient has to wear a splint for several months after the operation. The amazing thing, however, is that[4] this time the transplanted fibula grows in size until it becomes as thick as the damaged bone (the tibia) it has replaced.

### Notes

1 **to damage smth badly** – сильно повредить что-л.
2 **to get the patient walking again** – помочь пациенту так, чтобы он снова мог ходить
3 **in place of** – вместо
4 **the amazing thing is that ...** – поразительно то, что ...

### Vocabulary to the Text

**accident** ['æksɪdənt] *n* несчастный случай
**bone** [boun] *n* кость
**damage** ['dæmɪdʒ] *v* повредить
**fibula** ['fɪbjulə] *n* (*pl* **fibulae**) малоберцовая кость
**graft** [grɑ:ft] *v* пересаживать, трансплантировать
**leg** [leg] *n* нога
**mend** [mend] *v* исправлять; поправлять(ся)
**properly** ['prɔpəlɪ] *adv* должным образом, как следует
**replace** [rɪ'pleɪs] *v* заменить
**several** ['sevrəl] *pron* несколько
**shin** [ʃɪn] *n* голень
**size** [saɪz] *n* размер
**soft** [sɔft] *a* мягкий
**splint** [splɪnt] *n* шина
**surgeon** ['sə:dʒən] *n* хирург
**thick** [θɪk] *a* толстый
**thin** [θɪn] *a* тонкий
**tibia** ['tɪbɪə] *n* (*pl* **tibiae**) большеберцовая кость
**tissue** ['tɪsju:] *n* ткань
**wear** [wɛə] **(wore, worn)** *v* носить

## COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and find out:**

- why a broken leg sometimes does not mend properly;
- if Dr. Harold Dick has found a way to avoid amputating the damaged leg;

- if Dr. Harold Dick can get the patient with a badly damaged leg walking;
- if tibia or fibula is grafted

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-an, -ly, -ion,* the prefix *un-* and point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

- Russian, African, Mexican, Canadian, Hungarian;
- unable, uncomfortable, uncommon, unreasonable, unfair, uncertain;
- undo, unfasten, unlock, untie, uncover

**c. Reproduce the word combinations with *property, badly, American, operation* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. a. Find in the text the sentences with the words *to replace, to avoid, to support, to wear* and translate them into Russian.**

**b. Find in the text the sentences with the words *found, broken, damaged, undamaged, transplanted, replaced* and translate them into Russian.**

**c. Find in the text the sentences with the words *amputating* and *amazing* and translate them into Russian.**

**d. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized words are translated.**

1. Due to the publicity *given* to cases of adverse reaction to vaccination, particularly against whooping cough, there was a decline in the number of vaccinated patients.
2. There are signs that the situation is *improving.*
3. Although almost all babies are *born* in hospital, there is a domiciliary service for mothers *having* their babies at home, with midwives and general practitioners *giving* both anti-natal and post-natal care.
4. Primary health care in Great Britain is in the hands of doctors, dentists, opticians and pharmacists *working* within the National Service as independent practitioners, and district nurses and midwives *employed* by health authorities; a wide range of other serv-

ices is also available *including* the school health service and social services.

5. All *involved* in *treating* infertile couples must be aware of the cultural, religious and legal prescriptions *concerning* sexual activities.
6. Many medical schools and hospitals are *developing* departments of reproductive medicine.
7. Neurotic depression *treated* appropriately and promptly with firm directive and supportive psychotherapy, as well as with antidepressant drugs, has an excellent prognosis.
8. These drugs have *been* highly valuable tools for neuropharmacologists *involved* in neuroreceptor science.
9. Categorization of benzodiazepines according to structural characteristics may also be of value in *helping to understand* differences in their clinical action.
10. As Denmark has some of the best *drinking* water resources in the world, the target *to provide* adequate supplies may seem *to be* superfluous.

**3. Find in the text the word combinations below and justify the use of articles proceeding from the context.**

a broken leg, the damaged leg, the undamaged leg

**4. Point out the predicates in the text; justify the use of the Present Indefinite and the Present Perfect.**

**5. Compare the sentences within each set of sentences below and say**

**a) if the italicized adverbs change the meaning of the basic sentence radically (полностью);**

**b) if the italicized adverbs supply additional specifying meaning.**

I. 1. Sometimes a broken leg does not mend.
2. Sometimes a broken leg does not mend *properly*.

II. 1. Bone cancer has damaged the leg.
2. Bone cancer has damaged the leg *badly*.

III. 1. Dr. Dick has found a way to get the patient walking again.
2. Dr. Dick has found a way to get the patient walking again *quite normally*.

IV. 1. The fibula is not strong enough to support the damaged leg.
2. The fibula is not strong enough to support the damaged leg *immediately*.

**6. Find in the text the sentences with the preposition *of*, translate into Russian the word combinations with *of*, proceeding from the context.**

**7. Use the verbs in brackets in suitable forms to complete the sentences; translate the sentences into Russian.**

1. Researchers (to find) a way to mend a damaged bone as they said at the conference.
2. The damaged bone (to replace) with the thin shin bone of the undamaged leg.
3. The soft tissue in the leg (to damage) very badly.
4. The surgeon (to find) a way to avoid amputating the damaged leg of this patient.
5. The doctor (to find) a way to get the patient walking again quite normally.
6. He said he (to take) the thin shin bone and (to graft) it in place of the damaged bone.
7. The damaged bone can (to replace) with the thin shin bone.
8. When I saw her last time she (to wear) a splint.
9. The fact that the transplanted fibula (to grow) in size (to amaze).
10. The transplanted fibula (to grow) in size until it becomes as thick as the damaged bone.
11. The damaged bone must (to replace).

**8. Agree or disagree with the following. Begin with *I agree with that. I think* ... or *I don't agree with that. I (don't) think* ...**

1. Broken legs always mend properly.
2. Bone cancer may prevent proper mending of a broken leg.
3. A patient with a broken leg wears a splint only a week or two as a rule.
4. The transplanted fibula grows in size very quickly.
5. The thin shin bone may be used to replace a damaged bone of the leg.
6. A surgeon can find a way to avoid amputating a damaged leg.

**9. Ask as many questions as possible about the sentences below.**

1. An American surgeon has found a way to replace the damaged bone.
2. Sometimes broken legs don't mend properly.
3. The surgeon avoided amputating the damaged leg and even got the patient walking again.
4. The thin shin bone was taken from the undamaged leg.
5. The thin shin bone was grafted in place of the damaged bone.
6. This patient will wear a splint for several months after the operation.
7. The transplanted fibula must grow in size until it is as thick as the damaged bone.
8. The fibula has replaced the damaged bone.
9. This patient is wearing a splint because his leg is damaged badly.

**10. a. Say that one has done the following or the following has been done, or that one is doing the following or the following is being done. Make the necessary changes in the sentences.**

1. Last year an American surgeon found a way to replace the damaged bone.
2. The broken leg of this patient mended properly a month ago.
3. The soft tissue was damaged badly in the accident on Monday.
4. The surgeon avoided amputating the damaged leg last time.
5. The surgeon usually takes the thin shin bone from the undamaged leg of the patient to graft it in place of the damaged bone.
6. The patient wore a splint for several months after the operation.
7. The transplanted fibula usually grows in size in several months.

**b. Say what**

- you/your relative do/does (don't/doesn't do) every day;
- you/your classmate have/has (haven't/hasn't) done for your English class today;
- you/your relative are/is (aren't/isn't) doing now

**11. Study the models to do the tasks below.**

**Models:** 1. He **must** do calisthenics every day. (*обязательно должен*)

2. He **has to** do calisthenics every day to improve his general condition. (*приходится*)

3. He **is to** do calisthenics in this room now. (*должен согласно плану, расписанию*)

4. He **should** do calisthenics every day. (*ему следует, как думает говорящий*)
5. He **ought to** do calisthenics if he wants to improve his general condition. (*следует согласно объективным данным*)

**a. Say what you**

- must do every day;
- have to do on Sunday occasionally instead of having leisure;
- ought to do to improve your English;
- are to do for every English class

**b. Use the structures *You should ..., You ought to ....* Give advice to**

- a first-year student what to do to become a good doctor;
- your classmate what to do to improve his/her English;
- your classmate what to do to improve his/her health

**c. Say what a patient with a damaged leg *must do, is to do, should do, ought to do* and *has to do* using the following words and word combinations:**

- to undergo an operation,
- to undergo an X-ray examination,
- to see a doctor,
- to wear a splint,
- to stay at home,
- to move little,
- to have hot baths,
- to keep the leg warm,
- to do physical exercises,
- to have injections made,
- to stay in bed

**12. a. Study the sentences below and say if the italicized verbs express ability, permission or possibility due to circumstances.**

1. Chief of the department says you *can* be a good surgeon.
2. Chief of the department says you *may* be a surgeon if you want to.
3. Chief of the department says he *may* be a good surgeon but *cannot* perform such operations.

**b. Find in the text the construction *may be the result*; justify the use of *may* (not *can*).**

**c. Say what you may and can do, using the words and word combinations in the columns.**

| | | |
|---|---|---|
| I may<br>can | be late for my English classes sometimes<br>come earlier sometimes<br>perform complicated operations<br>speak English fluently<br>perform this operation<br>stay after classes<br>replace a damaged bone<br>diagnose stomach ulcer<br>see the results of their laboratory tests | if you ask me to<br>if I am allowed to<br>if I don't stay in the clinic<br>because I have learnt it for many years<br>as the teacher does not object<br>as I am busy in hospital |

**d. Say**

- what you can do in English, in medicine now;
- what you may do in class (as you are allowed to do that by the teacher or circumstances)

**13. a. Study the models and fill in the blanks (заполните пропуски) with *few*, *a few*, *little*, *a little* to complete the sentences; give several versions if possible; translate the sentences into Russian.**

**Models:** I. 1. I have got **a few** books. (*немного, несколько*)
2. I have got **a little** time to spare. (*немного, некоторое количество*)

II. 1. There are **few** books in my library. (*мало*)
2. There is **little** snow this winter. (*мало*)

1. There were ... accidents last year.
2. We have made ... operations of this type.
3. There are ... ways to avoid surgery.
4. We can't say there are ... cancer cases nowadays.
5. There is ... bone tissue in the tube.
6. You can't walk properly because too ... time has passed after the operation.
7. You should take ... reagent from the container.
8. The device has got ... advantages.
9. There is too ... light for my test here.

**b. Say**

- that you have got too little/few of for some kind of activity;

- if you have got a few books in English, a few medical journals in English; say how many;
- if you have got a little time for your English every day, to watch TV, to look through newspapers every day; say how much

**14. a. Study the models and make up sentences on them using the words and word combinations below.**

**Models:** 1. I have **enough** bread for us two.
I have **enough** money to buy this book.

2. I am strong **enough** to lift this case.
The drug is strong **enough** to relieve pain.

a) chemical reagents, blood, lenses, drugs, data, devices, information, blood supply, injection, tube, time
b) good, big, effective, valuable, safe, clever, transparent, tiny, healthy
c) for a laboratory test, for blood replacement, for experimental work, for this disease, for our work, to treat this patient, to perform this experiment, to make a good report, to support this idea, to examine this patient properly, to be administered in this case, to be inserted in the urinary tract, to follow this diet, to direct this study

**b. Say what**

- doctors need in sufficient amount to work in clinic properly;
- is good enough in clinics in Russia

**15. a. Study the model and make up short dialogues: your classmate is accusing you of something, you are apologising.**

**Model:**

| | |
|---|---|
| – You haven't returned my book yet. | – Вы еще не вернули мою книгу. |
| – Sorry, I didn't mean to keep it so long. | – Извините, я не хотел ее задерживать так долго. |
| – I'm very/terribly sorry, but I haven't read it yet. Excuse me. | – Я очень сожалею, но я ее еще не прочитал. |
| – That's all right! | – Ничего. |

**b. Express apology to a patient or his/her relatives because of the following:**

1. The patient's leg hasn't mended properly.
2. You could not avoid amputating the damaged leg.

3. You can't take off the splint at the moment.
4. The patient will have to wear the splint for several months.

**16. Study the model and make up short dialogues: your classmate says something, you miss (пропускаете) it and ask to repeat it; your classmate repeats it.**

**Model:**

| | |
|---|---|
| – You can find the text if you study the contents of the textbook. | – Вы можете найти текст, если внимательно посмотрите оглавление учебника. |
| – Excuse me. I didn't catch what you said. Could you say it again? (Could you repeat it?) | – Извините. Я не расслышал, что вы сказали. Не могли бы вы повторить? |
| – Sure. I'm saying that ... | – Безусловно. Я говорю, что ... |

**17. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

сломанная нога, сломать ногу, поврежденная нога, повредить ногу, мягкие ткани, ампутировать ногу, избежать ампутации ноги, малоберцовая кость, большеберцовая кость, голень, шина, рак, несколько способов сделать что-л., срастаться должным образом, сильно повредить, вполне нормально, немедленно, в течение нескольких месяцев, увеличиваться в размере, заменить кость, вместо поврежденной кости

**18. Translate the following sentences into English.**

1. У моего сына сильно повреждена нога.
2. У вашего сына не так сильно повреждена нога, как у этой девочки.
3. Левая нога этого пациента длиннее, чем правая.
4. Вы бы лучше проверили ваши данные в новых экспериментах.
5. Я не думаю, что эта кость срастется должным образом.
6. Он не поддерживает нашу идею.
7. Я ничего не знаю об их работе.
8. Я никого не знал в этой лаборатории.
9. Я ничего не буду обсуждать завтра.
10. Он сейчас не выполняет ваши рекомендации.
11. Он еще не наложил сенсоры на мочки ушей и на глаза.
12. Он не смог найти достаточно прозрачную линзу.

13. Вам не следует применять лекарства, которые вы не знаете достаточно хорошо.
14. Он ничего не должен был делать.
15. Ему не надо было сокращать время эксперимента.
16. Он не сможет предупредить вас.
17. Вам не следует так думать.
18. У меня нет более ранних данных.
19. У него нет более новой информации.
20. Этот прибор не новшество в медицине.
21. Эти препараты достаточно безопасны.
22. Существует несколько методов лечения таких больных.
23. Почему это лекарство показано только для таких случаев?
24. Почему он носит шину?
25. Когда вы сломали ногу?
26. Сколько месяцев вы носили шину после операции?
27. Когда вырастет пересаженная кость?
28. Где вы будете работать?
29. Что я должен сделать?
30. Что надо делать в таких случаях?
31. Где я могу взять маленькую трубку для моего эксперимента?

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. Why do broken legs mend badly sometimes?
2. What does Dr. Harold Dick suggest doing to avoid amputating a badly damaged leg?
3. What does the suggested method consist in?
4. Why does a patient have to wear a splint after the operation? How long does he have to wear a splint?
5. What happens to the transplanted fibula while the patient is wearing a splint?

**2. Point out facts in the text which prove the method to be hopeful.**

**3. Say what you can about a) medical aid if a leg is damaged; b) the procedure of a transplantation operation. Use the following words and word combinations.**

a) to replace a bone, to amputate a leg, to apply a splint, to wear a splint, is not strong enough, to support the damaged leg, to walk quite normally, not to be able to walk normally, to avoid

b) to take ... from, to graft, a graft, in place of, to reject, immunity, to increase, to suppress

**4. Say what is necessary to do for proper mending of broken bones.**

**5. Speak about the efficiency of operations for transplantation of organs and tissues; give examples.**

**6. a. Suppose you work together with Dr. Harold Dick. Ask if he would like you to assist in an operation; ask for permission to make an operation; ask for advice on the procedure of the operation; if you didn't understand what he said ask him to repeat or explain.**

**b. Make up a conversation including the components in (a).**

# Unit 10

*Text:* **'Living Skin' Could Aid Burn Victims.**

*Grammar:*
1. The Present Perfect Continuous.
2. Modal verbs (**could, might**).
3. The Participle (*continued*).
4. The Indefinite Pronouns (*continued*).

*Word Formation:* The suffix **-en**; the prefix **re-**.

*Speech Patterns:* **Disappointment.**
- I feel awful/terrible/miserable/sad.
- That upsets me.
- How very disappointing!
- Oh, no! What a pity!
- That's a shame!

## TEXT

## 'LIVING SKIN' COULD AID BURN VICTIMS

DAYTON, OHIO. A 'living skin' being developed at Wright State University is expected to shorten hospital stays for burn patients and reduce the scarring of conventional skin grafts.

The biologist Barbara Hull has been obtaining positive results with grafting[1] the skin substitute on mice recently and expects to test the procedure in six to 12 months[2] with burn patients at Miami Valley Hospital in Dayton. Dr. Hull heads one of the two research laboratories[3] in the United States that have published results on living skin substitutes, which bond an outer skin layer to the inner layer, she said.

The other research team is at the Massachusetts Institute of Technology, where Dr. Hull worked until 1983 under the direction of Eugene Bell, who pioneered the method.[4] Dr. Bell is developing 'generic' skin substitute that could be used by anyone, while Dr. Hull has extended that research in an attempt to find a fast procedure for growing replacement skin by using the burn victim's own cells.

### Notes

1 **to have positive results with grafting** – иметь положительные результаты в трансплантации
2 **in six to 12 months** – через 6–12 месяцев
3 **Dr. Hull heads one of the two laboratories** – доктор Халл возглавляет одну из двух лабораторий
4 **to pioneer a method** – первым предложить метод

### Vocabulary to the Text

**aid** [eɪd] *v* помогать
**attempt** [ə'tempt] *n* попытка
**bond** [bɔnd] *v* связывать
**burn** [bə:n] *n* ожог
**cell** [sel] *n* клетка
**conventional** [kən'venʃənəl] *a* обычный
**fast** [fɑ:st] *a* скорый, быстрый
**generic** [dʒɪ'nerɪk] *a* общий
**inner** ['ɪnə] *a* внутренний
**layer** ['leɪə] *n* слой
**mice** [maɪs] *n* (*pl* от **mouse** [maus]) мыши
**outer** ['autə] *a* наружный
**scar** [skɑ:] *v* рубцеваться
**shorten** ['ʃɔ:tn] *v* сокращать
**skin** [skɪn] *n* кожа
**stay** [steɪ] *n* пребывание
**substitute** ['sʌbstɪtju:t] *n* заменитель

## COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and find out:**

- if the new method shortens hospital stays;
- if the new method reduces scarring;
- what skin substitutes bond an outer skin layer with the inner layer;
- who is developing a 'generic' skin substitute.

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the prefix *re-*, the suffixes *-en*, *-al*, *-ist*, *-ion*, *-ic*, *-ment* and point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

- reopen, refill, re-elect, reappoint;
- recopy, reprint, rewrite;
- reconstruct, reorganize;
- soften, threaten, frighten, tighten, brighten

**c. Reproduce the word combinations with *shorten*, *conventional*, *direction* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. Find in the text the sentences with the constructions *is expected to shorten*, *expects to test* and translate them into Russian proceeding from the context; point out the difference in form and meaning.**

**3. Find in the text the sentences with the words *scarring*, *grafting*, *living*, *developing*, *growing*, *using* and translate them into Russian.**

**4. a. Study the ways of translating the Participles into Russian in the sentences below.**

1. A 'living skin' (которая?) **being developed** at a US University is expected to shorten hospital stays of burn victims.

   «Живая кожа», *которую разрабатывают/разрабатываемая* в одном из американских университетов, как ожидают, сократит пребывание в больнице пациентов с ожогами.

2. The 'living skin' (которая?) **developed** by Dr. Hull bonds the outer skin layer with the inner layer.

   «Живая кожа», *разработанная* доктором Халл, связывает наружный слой кожи с внутренним.

**b. Translate the following sentences into Russian; pay attention to the way the italicized words and word combinations are translated.**

1. Among other new facilities *being planned* are extended blood bank laboratories with modern equipment, a central sterilization department, and medical stores.
2. Such maternal health care could cost no more than about US $ 2 for each person a year, compared to an average of US $ 9 now *being spent* for all health care purposes in low-income countries.

3. An unusual reaction to food is chronic pneumonitis from *repeated* aspiration.
4. Manifestations in the case history *ascribed* to food are carefully noted, and findings characteristic of food sensitivity reactions are sought in the physical examination.
5. Without evidence *obtained* by biopsy, the physician must be hesitant to assume food sensitivity as the cause of enteropathy in the younger patients.
6. Only doctors specially *licensed* are allowed to prescribe heroin and cocaine for treatment of drug addictions.

**5. a. Find in the text the sentence with the construction *is developing* and state proceeding from the context if the action is going on at the present moment or the action is presented as a continual process.**

**b. Translate the following sentences into Russian using a dictionary; comment on the use of Continuous tense forms (to denote an action going on at the present moment or present an action as a continual process).**

1. They *are attempting* to open up professional schools to national members of minority groups.
2. Approximately 16 percent of the respondents *were planning* to work in large cities, but only 5 percent reported expected jobs in the suburbs of such cities.
3. As a result many programs in internal medicine are currently *being modified.*
4. This system is *being implemented* at the University of Virginia.
5. The Association also provides a six-week academic program in chemistry for premedical students who *will be attending* medical schools.

**6. Find in the text the word combinations below and justify the use or absence of articles proceeding from the context.**

a 'living skin', the skin substitute, on living skin substitutes, for burn patients, with burn patients, one of the two research laboratories

**7. Find out which words in the word combinations below name phenomena and which describe their qualities; translate them into Russian.**

hospital stays, burn patients, skin grafts, skin substitutes, research laboratories, the research team, the burn victim's cells

**8. Point out the predicates in the text; justify the use of Present and Past tense forms.**

**9. Find out if the italicized words are nouns or verbs.**

1. These are conventional skin *grafts*.
2. Dr. Hull *grafts* skin substitutes on mice.
3. The method is expected to shorten hospital *stays*.
4. This patient often *stays* in hospital for about a week.
5. Dr. Hull will describe the *tests* in her article.
6. Dr. Hull never *tests* her discoveries on animals.

**10. Find in the text the sentences with the prepositions *in, with, at* and *of;* translate into Russian the word combinations with them proceeding from the context.**

**11. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

1. A 'living skin' can (to shorten) hospital stays for burn patients.
2. The scarring of conventional skin grafts can (to reduce).
3. A 'living skin' (to develop) at Wright State University now.
4. Dr. Hull (to develop) new skin substitutes and (to test) them on mice now.
5. Dr. Hull (to have) good results with skin substitutes in testing on mice.
6. Dr. Hull (to head) a research laboratory in the United States.
7. Dr. Hull (to publish) an article on living skin substitutes.
8. The outer and inner skin layers (to bond).
9. Dr. Hull (to work) at the Massachusetts Institute of Technology until 1983.
10. Dr. Hull (to work) at the Institute of Technology under the direction of Eugene Bell.
11. The method (to pioneer) by Eugene Bell.
12. Dr. Hull said she (to test) a skin substitute on mice.
13. Dr. Hull (to extend) the research to find a fast procedure for growing replacement skin.
14. Dr. Hull said she (to extend) the research to find a fast procedure for growing replacement skin.

**12. Revise the text and agree or disagree with the following.**

1. A 'living skin' prolonged stays for burn patients.
2. A 'living skin' reduces the scarring of skin grafts.

3. Dr. Hull has had hopeful results with grafting the skin substitute on mice.
4. Dr. Hull expects to stop testing the new procedure.
5. Dr. Hull heads a research laboratory.
6. Dr. Hull conceals results on living skin substitutes.
7. Dr. Hull pioneered the work on living skin.
8. Dr. Hull is developing 'generic' skin substitute.
9. Dr. Hull is extending research to find a fast procedure for growing replacement skin.
10. Dr. Hull is using the burn victim's own cells to grow skin substitutes.

**13. Revise the text and make up questions to find out in detail about**

the substance being developed; the purpose of the research; the effectiveness of the discovery; the stage of the research work

**14. Study the models and use the verbs in brackets in suitable forms to complete the sentences; translate the sentences into Russian.**

**Models:** I. **I have written** the letter. You can post it. (*fact*)

II. **I have been writing** the letter **since** early morning/**for** several hours. (*process*)

1. Dr. Hull (to obtain) positive results on animals and will try to use the method in medical practice. Dr. Hull (to obtain) positive results for a month.
2. The nurse (to take) too much blood for this test. This nurse (to take) too much blood for tests.
3. An alliance between doctors and physicists (to lead) to a new method of treatment for ulcers.
4. The results of the experiment (to prove) the effectiveness of a new drug.
5. The stone (to shatter) by a tiny laser.
6. The laboratory (to develop) this device for years.
7. Sensors (to transmit) electrical impulses for ten minutes.
8. Doctors (to use) lidocaine to prevent irregular heartbeat since the discovery was unveiled.
9. This patient (to wear) a splint for several months.
10. Doctors (to try) to transplant 'living skin' since it was invented.

**15. a. Revise the text and point out:**

- what was done in the past;
- what has been done by the time of publication of this article;
- what is being done;
- what one of the two scientists has been obtaining recently

**b. Say**

- what you did last Sunday;
- what work or study you have completed by now;
- what you are studying or working at now;
- what you have been doing recently (since when and during what period of time)

**16. Study the models and find out what your classmate has been doing recently; reveal the information in class.**

**Models:** – **Have** you **been reading** a textbook since early morning?
– a. Yes, I **have been reading** "Human Anatomy".
– b. No, I **have not been reading** a textbook. I **have been reading** a novel.

– Sasha **has been reading** a novel/"Human Anatomy" since early morning.

**17. a. Study the models and fill in the blanks with the words *some*, *any*, *someone*, *anyone*, *somebody*, *anybody*, *something*, *anything* to complete the sentences.**

**Models:** – I know **someone** who can do it.
– I don't know **anyone** here.
– Do you know **anyone** here?
– **Anyone** can do it.

1. ... has discovered a 'living skin'.
2. ... burn patient can receive living skin grafts in this clinic.
3. Dr. Hull has not discussed the results with ... .
4. Dr. Hull has published the results in ... 'American Journal of Medicine'.
5. Have you seen ... burn patients with 'living skin' substitutes?
6. ... can use the 'generic' skin substitute.
7. She has not got ... information on Dr. Bell's work.
8. ... may participate in the test.
9. I know ... very important.

10. Do you know ... about Dr. Bell's work?
11. You can take ... here.

**b. Say what anyone can do**

- to prevent a respiratory disease;
- to administer first aid to a heart attack victim;
- to administer first aid to a burn victim;
- to administer first aid to a patient with a broken leg

**18. Study the models to do the tasks below.**

**Models:** I. 1. He **said** he **could** read the article yesterday when it was available/when he had time to spare. (*мог*)
2. He **said** I **might** read a survey instead of carrying out an experiment. (*мог*)

II. 1. He wants to develop a device that could be used by anyone. (*мог бы*)
2. I **wonder** if I **might** ask you for advice. (*мог бы*)

**a. Justify the use of the verbs *could* and *might* in the sentences below.**

1. In the future a physician's practice *could* be balanced in terms of disease entities by utilizing diagnostic data established prior to assignment.
2. Each patient is, in effect, screened before assignment; and those who *might* receive care closer to their home or who have other sources of care are not automatically plugged into the system.

**b. Say what you *could* and *might do* now, yesterday.**

**19. a. Study the models and make up short dialogues: your classmate reveals some bad news; you express disappointment.**

**Models:**

- I feel awful/terrible/miserable/ sad. I haven't passed the exam. That really upsets me.
- How very disappointing!/ That's disappointing!/Oh, no! What a pity!/That's a shame!

- Я чувствую себя ужасно./Мне грустно. Я не сдал экзамен. Это ужасно огорчает.
- Как печально!/Печально!/ О, как жаль!/Какая досада!

**b. Your colleague expresses disappointment because of his failure**

- in research work;
- in an experiment on animals;

- in treating a patient;
- in extending research;
- in developing a new device.

**Express your disappointment because of your colleague's failure.**

**20. Revise the text and give English equivalents to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

сократить время пребывания в больнице, рубцевание кожи, положительные результаты в ..., предполагать сделать что-л., апробировать что-л., процедура, возглавлять лабораторию, результаты в, исследовательская группа, исследовательская лаборатория, под руководством кого-л., в попытке сделать что-л., заменитель, трансплантант, пациент с ожогом, наружный слой, внутренний слой, клетка, выращивать кожу для пересадки, ускоренный процесс

**21. Translate the following sentences into English.**

1. Вы могли сломать ногу.
2. Он мог бы потерять много крови.
3. Вы можете воспользоваться заменителем крови.
4. Вы можете провести переливание крови.
5. Он уже значительно усовершенствовал эту методику.
6. Тромб уже рассосался.
7. Причины инсульта уже определены.
8. Врач сказал, что уже обсудил состояние этого больного с коллегами.
9. Врач просил не беспокоить его, так как он заполнял историю болезни.
10. Ученый сказал, что он не часто наблюдал такие явления в последнее время.
11. Исследователи сказали, что это бесценная информация.
12. Врач был уверен, что сможет подтвердить первоначальные данные.
13. Любое исследование полезно.
14. Любая модель такого типа может быть полезной.
15. Вам не следует говорить об этом.
16. Есть несколько исследований по этому вопросу.

17. Существует один обзор по этой проблеме.
18. Этот обзор не так важен, как тот, который был опубликован в последнем номере журнала.
19. Состояние больного такое же тяжелое, как и до операции по удалению камня.
20. Мне бы хотелось разработать новую методику, которая была бы более эффективной.
21. Она возглавляет эту лабораторию с 1991 года.
22. Она не возглавляла эту лабораторию двадцать лет тому назад.
23. Она сейчас апробирует новый пересадочный материал на животных.
24. Она пытается использовать «живую кожу» для пересадки больным с ожогами.
25. Ей пересадили «живую кожу», которая выращена из ее собственной клетки.
26. Она разработала более быструю процедуру роста кожного трансплантанта.
27. Группа исследователей не закончила апробацию метода к конференции.
28. Эта исследовательская лаборатория могла бы сделать больше.
29. Мы могли бы показать вам нашу работу, если бы у вас было больше времени.
30. Я бы хотел работать под вашим руководством.
31. Любой мог бы сделать такую операцию.
32. Им не следует очень расширять это исследование.
33. Мне придется расширить исследование.
34. Апробируйте эту процедуру, прежде чем использовать ее!
35. Не сокращайте время пребывания пациента в больнице!
36. Существует много видов ожогов.
37. Есть группа ученых, которая работает над этой проблемой.
38. Кто смог увидеть эту клетку?
39. Почему рубцевание прошло так быстро?
40. Кто руководил этим исследованием?
41. Кто возглавит это исследование?
42. Почему вам приходится пользоваться такими приборами?
43. Где была опубликована эта статья?
44. Когда эти результаты были опубликованы?

## SPEECH EXERCISES

**1. Revise the text and answer the following questions.**

1. What problems do burn patients come across?
2. What method did Dr. Bell pioneer?
3. Why are 'living skin' grafts better than conventional skin grafts?
4. What is Dr. Bell working at now?
5. What is Dr. Hull working at now?
6. How did it happen that Dr. Bell and Dr. Hull started to work on the same problem?

**2. Point out facts in the text which prove the method to be hopeful.**

**3. Say what you can about a) burn patients' condition and treatment; b) skin grafting to burn patients, using the following words and word combinations.**

a) skin grafting, painful, to scar, scarring, a long hospital stay, appearances, to disfigure

b) to graft skin, conventional skin grafts, to scar, a skin substitute, to develop, a generic skin substitute, a living skin substitute, to reduce scarring, to shorten hospital stays, to grow replacement skin, to use the burn victim's own cells.

**4. Say what treatment is usually provided for burn patients.**

**5. Express your opinion of the method described in the text.**

**6. a. Suppose you and your colleague are discussing conventional skin grafting to burn patients. Express your dislike of the results of such operations; suggest how to improve skin grafting and express your certainty about better results if the recommendations are carried out; ask for permission to continue the research on skin grafting and to introduce the new method into practical work.**

**b. Make up a conversation including the components in (a).**

# Unit 11

*Text:* **Bifocal Lenses in Miniature.**

*Grammar:*
1. The Impersonal **it**.
2. The Passive Voice (*revision*).
3. **most, most of ...**

*Word Formation:* The suffixes **-age, -ous**; the prefixes **dis-, bi-**.

*Speech Patterns:*
1. **Belief**.
– I can easily believe it.
– I believe it.

2. **Disbelief**.
– I don't/can't believe it.
– That can't be true. You are joking.

## TEXT

## BIFOCAL LENSES IN MINIATURE

The new contact lenses take advantage of[1] the way the eye reacts to light. A tiny reading lens sits[2] in the centre of each contact, surrounded by a doughnut-shaped distance lens.[3] When a wearer is reading, the pupil contracts, and most of the light is taken in through the reading lens. The small amount of light that is filtered through the distance lens does not focus and the brain soon learns to ignore the blur associated with it, just as spectacles wearers become oblivious to[4] the lines created by glasses frames.

When a reader looks up and, for example, gazes out of the window,[5] the pupils expand and light is taken in through the

distance lens. Wearers unaccustomed to the contacts may see a faint shadow next to a close-up image,[6] but this usually disappears after a few weeks. The manufacturer recommends that users wear sun-glasses in extremely bright light to keep the pupil from contracting excessively. Clinical tests show that the bifocal lenses, which were recently approved by the U.S. Food and Drug Administration, have a success rate of approximately 70 per cent. It is necessary to mention that most of the unsuccessful wearers had astigmatism that could not be corrected by the bifocal lens.

The company is now working on a soft bifocal lens for astigmatism.

### Notes

1 **to take advantage of ...** – воспользоваться (чем-л.)
2 **a reading lens sits** – линза для чтения располагается
3 **a doughnut-shaped lens** – линза, имеющая форму пончика
4 **to become oblivious to ...** – перестать обращать внимание на что-л.
5 **to gaze out of the window** – пристально смотреть в окно
6 **next to a close-up image** – рядом с изображением крупным планом

### Vocabulary to the Text

**approve** [ə'pru:v] *v* одобрять; утверждать
**associate** [ə'souʃɪeɪt] *v* связывать, ассоциировать
**astigmatism** [æs'tɪgmətɪzəm] *n* астигматизм
**bifocal** ['baɪ'foukəl] *a* двухфокусный
**blur** [blə:] *n* неясное очертание
**contract** [kən'trækt] *v* сокращать(ся)
**create** [kri:'eɪt] *v* создавать
**distance** ['dɪstəns] *n* расстояние, дальность
**expand** [ɪks'pænd] *v* расширять(ся)
**faint** [feɪnt] *a* слабый, неясный
**frame** [freɪm] *n* оправа (очков)
**glasses** ['glɑ:sɪz] *n pl* очки
**lens** [lenz] *n* линза
**miniature** ['mɪnjətʃə] *a* миниатюрный
**pupil** ['pju:pl] *n* зрачок
**rate** [reɪt] *n* степень, уровень
**react** [ri:'ækt] *v* реагировать
**shadow** ['ʃædou] *n* тень
**spectacles** ['spektəklz] *n* очки
**surround** [sə'raund] *v* окружать

## COMPREHENSION TASKS

**1. Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

**2. Study the Notes and Vocabulary to the Text. Read the text and find out:**

- if contact lenses or spectacles are being discussed;
- if the lenses are only for reading;
- if a reading lens and a distance lens are used in one device;
- if the device can be used for astigmatism

## VOCABULARY AND GRAMMAR EXERCISES

**1. a. Pick out in the text the words with the suffixes *-age, -ous, -ance, -er, -ion, -al, -ly*, the prefixes *dis-, bi-, un-* and point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

- usage, passage, package, carriage;
- dangerous, nervous, conscious, famous, anxious, suspicious;
- disagree, disobey, dislike, disconnect, disapprove;
- bicycle, bichloride, bicarbonate, biceps, bigamy, bilateral

**c. Reproduce the word combinations with *advantage, recently, extremely, usually, disappear, clinical, bifocal, distance* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. Find in the text the sentences with the words *reading* and *contracting* and translate them into Russian.**

**3. Find in the text the sentences with *is reading* and *is working* and say if they denote actions going on at some moment or present actions as a continual process.**

**4. Find in the text the sentences with the words *surrounded, taken, filtered, associated, created, unaccustomed, approved, corrected* and translate them into Russian.**

**5. Translate the following sentences into Russian using a dictionary; pay attention to the way the italicized word combinations are translated.**

1. Tables *are* also *included* in the review.
2. As the number of applicants continues to increase, the proportion of those who *are accepted* is expected to drop slightly.
3. The contribution of many individuals *have been* fully *acknowledged* in a review article we have prepared recently for publication.
4. As an example of what *can be done* in this area Dr. Cigrroa, a surgeon, teacher, and humanitarian in Laredo, established a foundation that grants scholarships to needy medical students.

5. Diagnosis *may be made* quickly, but effective, efficient management of chronic disease demands time.
6. A case history *must be elicited* by a physician with a caring and non-judgemental attitude.

**6. Find out which words in the word combinations below name phenomena and which describe their qualities; translate them into Russian.**

contact lenses, distance lenses, a spectacles wearer, glasses frames, Food and Drug Administration, a success rate

**7. Study the text and justify the use or absence of articles with nouns.**

**8. Choose modifiers (определители) in (b) to the words in (a); translate the word combinations into Russian.**

a) lens, light, to contract, to approve
b) tiny, reading, distance, doughnut-shaped, most of, a small amount of, extremely bright, excessively, bifocal, recently, soft, new, contact

**9. Point out the predicates in the text; justify the use of the Indefinite and Continuous tense forms.**

**10. Find out the functions of the italicized words in the sentences below and say if they are nouns or verbs.**

1. The small amount of light that is *filtered* through the distance lens does not *focus*.
2. You may use this *filter*.
3. It is important to reveal the *focus* of infection.

**11. Find in the text the sentences with the prepositions *by, of, to, through;* translate into Russian the word combinations with them proceeding from the context.**

**12. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible, translate the sentences into Russian.**

1. This is the way the eye (to react) to light.
2. The new contact lenses took advantage of the way the eye (to react) to light.
3. A tiny reading lens (to surround) by a doughnut-shaped distance lens.
4. When a lens wearer (to read) the pupil (to contract).
5. The blur (to associate) with it.

6. The brain soon (to learn) to ignore the blur associated with it.
7. When a reader (to look) up, the pupils (to expand).
8. Lens wearers may (to see) a faint shadow.
9. A faint shadow next to a close-up image (to see).
10. The shadow must (to disappear) after a few weeks.
11. The users should (to wear) sun-glasses in extremely bright light.
12. Sun-glasses (to keep) the pupils from contracting excessively.
13. The bifocal lenses (to approve) recently by the U.S. Food and Drug Administration.
14. Astigmatism could not (to correct) by the bifocal lens.
15. A success rate of approximately 70 per cent (to show) by clinical tests.
16. The company (to work) on a soft bifocal lens now.

**13. Revise the text and agree or disagree with the following.**

1. A tiny reading lens sits in the centre of each contact.
2. A distant lens is surrounded by a reading lens.
3. When a lens wearer is reading, the pupil expands.
4. Spectacles wearers soon become oblivious to the lines created by glasses frames.
5. Lens wearers may see a faint shadow next to a close-up image.
6. Clinical tests show that the bifocal lenses fail to improve vision.
7. Astigmatism can be corrected by a soft lens.

**14. Revise the text and make up questions to find out in detail about**

- the composition and structure of the device;
- the way the device operates;
- the recommendations of the manufacturer;
- the success rate of the device;
- the work of the company now.

**15. Revise the text and say using the constructions *It is necessary/possible/important to do***

- what is necessary to do to keep the pupils from contracting excessively;
- what one can suffer from when just begins to wear bifocal lenses;
- what lenses should be developed for astigmatism.

**16. Study the models to answer the questions below.**

**Models:** It often rains in autumn./It **does not** often **rain** in summer.
It is raining now./It **is not raining** now.
It is cold here./It **is not cold** here.

1. Does it often rain in summer in Moscow? in spring? in autumn?
2. Is it raining now? Is it snowing now? Is it sunny today?
3. Is it cold in winter in Moscow? Is it cold now?
4. Is it hot in summer in Moscow? Is it hot here? Is it stuffy here?
5. Is it often noisy in class? Is it noisy now?

**17. a. Study the models and say what Dr. Brown of all doctors recommended a relative of yours. Use the word combinations below.**

**Models:** I. **Dr. Brown recommended** my brother to wear contact lenses. (Д-р Браун рекомендовал ...)

II. **It was** Dr. Brown **who recommended** my brother to wear contact lenses. (Именно д-р Браун рекомендовал ...)

- to wear bifocal lenses,
- to wear spectacles,
- to wait till the eyes would learn to ignore the blur,
- to wear sun-glasses in extremely bright light

**b. Make up sentences about yourself using the construction *It is/was ... who ... .***

**18. a. Study the models below and say what**

- most students like/dislike to do, often do/do not do;
- most of the students in your group like/dislike to do, often do/do not do, are doing, have done/have not done, have been doing recently.

**Models:** I. **Most students** do not like to attend lectures. (большинство)

II. **Most of the students** in our group attend all lectures. (большая часть)

**b. Express belief or disbelief in regard to what other students say in (a).**

**Models:** 1. You say (Sasha says) most students don't like to attend lectures.
I **can** easily **believe** it./I **believe** it.

2. You say (Sasha says) most students attend all lectures.
**I don't/can't believe** it./That **can't be** true./You **are joking**.

**19. Revise the text and give English equivalents to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

воспользоваться чем-л., реагировать на, в центре чего-л., быть окруженным чем-л., фильтровать через, быть связанным с, например, рядом с, обычно, при слишком ярком освещении, клинические тесты показывают, быть одобренным кем-л., примерно 70 процентов, бифокальные линзы, мягкие линзы, контактные линзы, линзы для дали, линзы для чтения, зрачок расширяется, зрачок сужается, свет фокусируется, очки, расплывчатое изображение, астигматизм

**20. Translate the following sentences into English.**

**I.**

1. Необходимо проанализировать этот случай рака кишечника.
2. Этот случай должен быть проанализирован еще раз.
3. Нам приходится часто обсуждать такие случаи.
4. Нам пришлось еще раз обсудить этот случай рака кишечника.
5. Следует обсуждать такие случаи вместе.
6. Нам придется еще раз обсудить этот случай рака кишечника.
7. Вполне возможно снизить смертность от этого заболевания.
8. Врачи могут снизить смертность от этого заболевания, используя наш метод лечения.
9. Раньше врачи не могли установить причину этого заболевания.
10. Мы сможем установить причину этого заболевания только после получения результатов анализов.
11. Вы можете посмотреть результаты анализов этого пациента.
12. Необходимо иметь несколько таких приборов в клинике.
13. Нет необходимости вновь обсуждать более ранние данные.
14. Невозможно вывести камень через мочеточники без этого прибора.
15. Я проработал несколько лет под его руководством.
16. Он носил шину несколько месяцев.
17. У нас мало данных по этому вопросу.

18. Мы уже представили несколько статей для публикации в журнале.
19. Несколько исследовательских групп сейчас работают над этой темой.
20. У нас есть немного химических реактивов для этого исследования.
21. Если бы у нас не было достаточно реактивов, мы не смогли бы сейчас проводить этот эксперимент.
22. Он сказал, что они работают над несколькими проблемами.
23. Мы знали, что он потерял слишком много крови.
24. Почему необходимо проверить эти данные?
25. Почему у нас так мало реактивов?

## II.

1. Он принимает много разных лекарств.
2. Он еще не принимал это лекарство.
3. Зрачок может сужаться и расширяться.
4. Он воспользовался нашим отсутствием.
5. Он не обращал внимания на нас.
6. Ассоциация одобрила новую методику.
7. Зрение можно скорректировать при помощи очков.
8. Контактные линзы не скорректировали зрение пациента с астигматизмом.
9. Для пациентов с астигматизмом необходимы мягкие линзы.
10. В центре находится линза для чтения.
11. В центре контактной бифокальной линзы не фокусируется свет.
12. Большинство больных сказали, что до курса лечения видели плохо.
13. Большинство пациентов не смогли показать буквы третьего ряда.
14. Зрачки быстро реагируют на свет.
15. Вам следует избегать слишком яркого света.
16. Контактные линзы будут популярны еще много лет, но необходимо разрабатывать новые виды контактных линз.
17. Нескольких клинических проверок будет достаточно, чтобы показать эффективность метода.
18. Мне бы не хотелось носить очки.

19. Из этих двух линз одна для чтения, а другая – для дали.
20. Очки не так удобны, как линзы.
21. Линзы удобнее, чем очки.
22. Если бы у меня не было астигматизма, я бы мог носить эти линзы.
23. Ему приходится носить очки постоянно.
24. У вас много пациентов с астигматизмом?
25. Ваш метод одобрили?

## SPEECH EXERCISES

**1. Make up short talks where the phrases below can be key phrases.**

1. We have taken advantage of … .
2. We observed the way they reacted … .
3. Only a small amount of this substance is necessary for … .
4. It is impossible to ignore these facts.
5. We have created necessary conditions for … .
6. All signs disappeared after a few hours.
7. We are now working on the problem of … .

**2. Revise the text and answer the following questions.**

1. What device is being discussed in the text? Where is it approved?
2. What physiologic factor is the invention based on?
3. How does the device operate?
4. What problems does a patient come across when begins to wear lenses? How can one cope with them?
5. What work is the company starting?

**3. Point out the facts in the text which may be necessary for advertising the device.**

**4. Say what you can about a) bifocal lenses, b) problems of a patient with bifocal lenses. Use the following words and word combinations.**

a) to be approved by, to have a success rate of 70 percent, a tiny reading lens, a distance lens, to sit, to surround, in the centre of, to contract, to expand, light is taken in through

b) blurred vision, a shade next to the image, a small amount of light, not to focus, to learn to ignore, soft bifocal lenses, astigmatism to be corrected by bifocal lenses

5. **Give recommendations to a patient who has just started to wear bifocal lenses.**

6. **a. Suppose you work in the research team which has invented the bifocal lenses. Make a talk to present the device.**

   **b. Suppose you are visiting the laboratory where bifocal lenses have been invented. Express belief, disbelief, doubt, certainty about what has been said or shown; ask for permission to try the device; say if you like or dislike the device; propose how to continue the work.**

   **c. Make up a conversation including the components in (b).**

# Unit 12

*Text:* **Moving Towards the Artificial Ear.**

*Grammar:*
1. Modal Verbs (with the Perfect Infinitive).
2. The Complex Object (with the Infinitive).
3. The construction **to be going to (do).**

*Word Formation:* The suffix: **-ian**; the prefixes: **im-**, **over-**, **trans-**.

*Speech Patterns:* **Intentions.**
- What are you going to do?
- What do you plan/intend to do?
- I'm going to ... .
- I plan/intend to ... .

## TEXT

# MOVING TOWARDS THE ARTIFICIAL EAR

Physicians are now able to help many deaf persons regain at least[1] some of their hearing thanks to several new types of prosthetic devices. The strides that have been made after long and complex research point towards[2] a day when non-functioning ears will be replaced by equally effective artificial substitutes.

Dr. Jacob Sadé who may have been known long ago for his works on ear diseases has developed an artificial replacement for the most fragile bone of the middle ear. The bone, called the stapes, is one of a trio of tiny bones that work in sequence to transmit sound waves from the eardrum to the inner ear. A physical impact or even a bad inflammation of the middle ear can destroy the stapes. Replacing the bone is difficult; prostheses are tricky[3]

to implant and are often rejected by the body. Sadé's prostheses called the Tabor may overcome these problems.

The Tabor is more anatomical than other prostheses; the device closely matches the triangular shape of its natural counterpart. Sadé's original design called for[4] a base of ceramic attached to a tiny piece of bone snipped from another bone in the middle ear. The artificial part of the Tabor device made it easy to stabilize[5] it within the ear, while the bone section lessened the chance of rejection by the body. Sadé has successfully implanted this device in several patients and is going to continue the work.

## Notes

1 **at least** – по крайней мере
2 **the strides ... point towards** – шаги ... направлены на
3 **to be tricky** – быть сложным, мудреным
4 **to call for** – *зд.* предусматривать
5 **to make it easy to stabilize** – облегчить укрепление

## Vocabulary to the Text

**artificial** [ˌɑ:tɪ'fɪʃəl] *a* искусственный
**ceramic** [sɪ'ræmɪk] *a* керамический
**counterpart** ['kauntəpɑ:t] *n* двойник; что-л. дополняющее, дублирующее
**deaf** [def] *a* глухой
**design** [dɪ'zaɪn] *n* замысел; проект
**destroy** [dɪs'trɔɪ] *v* разрушать
**eardrum** ['ɪədrʌm] *n* барабанная перепонка
**equal** ['i:kwəl] *a* равный
**fragile** ['frædʒaɪl] *a* хрупкий
**impact** ['ɪmpækt] *n* удар, воздействие
**inflammation** [ˌɪnflə'meɪʃən] *n* воспаление
**inner** ['ɪnə] *a* внутренний
**lessen** ['lesn] *v* уменьшать(ся)
**match** [mætʃ] *v* подходить (*под пару*), соответствовать
**middle** ['mɪdl] *a* средний
**natural** ['nætʃərəl] *a* естественный, природный
**overcome** [ˌouvə'kʌm] **(overcame, overcome)** *v* преодолевать
**physical** ['fɪzɪkəl] *a* физический
**prosthesis** ['prɔsθɪsɪs] *n* (*pl* **prostheses**) протез
**regain** [rɪ'geɪn] *v* получить обратно, восстанавливать
**reject** [rɪ'dʒekt] *v* отторгать
**sequence** ['si:kwəns] *n* последовательность
**shape** [ʃeɪp] *n* форма
**snip** [snɪp] *v* обрезать, разрезать
**sound** [saund] *n* звук
**stapes** ['steɪpi:z] *n* стремя (слуховая косточка)
**triangular** [traɪ'æŋgjulə] *a* треугольный, трехгранный
**trio** ['tri:ou] *n* трио

## COMPREHENSION TASKS

1. **Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

2. **Study the Notes and Vocabulary to the Text. Read the text and find out:**

– if a surgical or a therapeutic method is suggested;
– if the device is artificial, natural or half artificial and half natural;
– if the device described is often rejected by the body

## VOCABULARY AND GRAMMAR EXERCISES

1. **a. Pick out in the text the words with the suffixes *-ian, -ly, -ive, -al, -ion, -ment, -en, -ful*, the prefixes *im-, over-, counter-, in-, trans-, non-, re-* and point out their stems. Translate the words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

– magician, musician, phonetician, comedian, politician;
– counter-statement, counterblow, counterbalance, counterblast;
– transcontinental, transoceanic, transform, transnormal;
– overtake, oversleep, overcharge, oversupply, overpraise;
– implicate, import, impose, impress

**c. Reproduce the word combinations with *physician, prosthetic, equally, artificial, physical, inflammation, implant, overcome, closely, ceramic* from the text; translate them into Russian. Make up sentences of your own with them.**

2. **Find in the text the sentences with the words *hearing, non-functioning, replacing* and translate them into Russian.**

3. **Find in the text the sentences with the words *made, replaced, developed, called, rejected, attached, snipped, lessened, implanted* and translate them into Russian.**

4. **a. Study the ways of translating the following constructions into Russian.**

| | |
|---|---|
| 1. Dr. Sadé **may/can/must be known** for his works on ear diseases. | Д-р Садэ *может/должен быть (возможно/должно быть) известен* своими работами по заболеваниям уха. |
| 2. Dr. Sadé said he **might/could/had to be known** for his works on ear diseases. | Д-р Садэ сказал, что его *могут/должны (могли/должны были) знать* по работам, связанным с болезнями уха. |

| | |
|---|---|
| 3. Dr. Sadé who **may/can/must have been known** long ago for his works on ear has developed a new device. | Д-р Садэ, который, *видимо/ должно быть,* давно *был известен* своими работами по болезням уха, разработал новый прибор. |

**b. Translate the following sentences into Russian; pay attention to the way the italicized constructions are translated.**

1. Dementia *can be caused by* metabolic, toxic, infectious and circulatory diseases.
2. Pulmonary function decline *can be slowed* if patients with chronic obstructive pulmonary disease stop smoking early in the course of obstruction.
3. This lesion *may be found* in a number of intestinal disorders.
4. This pattern *can be applied* to any community hospital educational program.
5. The importance of ceasing smoking *must be stressed* for patients with all levels of ventilatory impairment.
6. Some 10 years ago hospital medical staff *could be employed* full-time or part-time.
7. First the patient's anxiety *had to be reduced* to the point where he or she could talk about his or her troubles.
8. At this point it *may have become* evident that reactions to food in infancy are often based on reagents which are easy to detect.
9. At this point it *must have become* evident that some individuals may be immunologically sensitive to a food protein.
10. Some factors which *must have been evaluated* are listed in Figure 3.

**5. Find out which words in the word combinations below name phenomena and which describe their qualities; translate them into Russian.**

ear diseases, sound waves, the bone section, the middle ear, complex research

**6. Study the text and justify the use or absence of articles with nouns.**

**7. Choose modifiers in (b) to the words in (a); translate the word combinations into Russian.**

a) ear, substitute, replacement, prosthesis, device, to implant, to match

b) ceramic, prosthetic, a new type of, non-functioning, effective, equally effective, artificial, natural, middle, inner, a bad inflammation of, closely, successfully

**8. Point out the predicates in the text, outline the tense forms used and justify their use.**

**9. Translate the sentences into Russian; say if the italicized constructions express ability, possibility or uncertainty.**

1. Physicians *are now able to help* many deaf persons regain at least some of their hearing.
2. Dr. Jacob Sadé who *may have been known* long ago for his works on ear diseases has developed an artificial replacement for the most fragile bone of the middle ear.
3. A physical impact or even a bad inflammation of the middle ear *can destroy* the stapes.
4. Sadé's prosthesis called the Tabor *may overcome* these problems.

**10. Find out the functions of the italicized words in the sentences below and say if they are nouns or verbs; point out their modifiers.**

1. The strides that have been made after long and complex research *point* towards a day when ... .
2. At this *point* it became evident that artificial substitutes could be rejected by the body.
3. Dr. Sadé is well known for his *work* on ear diseases.
4. The stapes is one of a trio bones that *work* in sequence.

**11. Find in the text the sentences with the prepositions *within, after, toward, on, for;* translate into Russian the word combinations with them proceeding from the context.**

**12. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

1. Physicians (to help) many deaf persons regain some of their hearing thanks to the new types of prosthetic devices.
2. Non-functioning ears can (to replace) by equally effective artificial substitutes.
3. Dr. Jacob Sadé said he (to develop) an artificial replacement for the stapes.
4. Dr. Sadé said the artificial replacement for the stapes (to test) in a month.

5. Sound waves (to transmit) from the eardrum to the inner ear by a trio of tiny bones that work in sequence.
6. The stapes can (to destroy) by a physical impact or even a bad inflammation.
7. A bad inflammation may (to destroy) the stapes.
8. Prostheses may (to reject) by the body.
9. Sadé's prosthesis (to match) the triangular shape of its natural counterpart.
10. A ceramic base (to attach) to a tiny piece of bone snipped from another bone in the middle ear.
11. The bone section of the device (to lessen) the chance of rejection of the device by the body.
12. The device (to implant) successfully in several patients.
13. The device (to stabilize) within the ear due to the ceramic base.

**13. Revise the text and agree or disagree with the following.**

1. Prosthetic ear device may help patients regain their hearing.
2. Non-functioning ears will soon be replaced by equally effective artificial substitutes.
3. Dr. Sadé has failed to develop an artificial replacement for the stapes.
4. A trio of tiny bones in the middle ear work in sequence to transmit sound waves from the eardrum to the inner ear.
5. Neither a physical impact nor a bad inflammation of the middle ear can destroy the stapes.
6. Replacing the stapes is easy.
7. Prostheses are never rejected by the body.
8. Dr. Sadé's device is not so anatomical as other prostheses.
9. The artificial part of the Tabor device is useless.
10. The bone section of the Tabor device increases the chance of rejection by the body.
11. Dr. Sadé has successfully implanted the device in several patients.

**14. Revise the text and make up questions to find out in detail about:**

- the problems of deaf people;
- the techniques that help regain hearing;
- the causes of destruction of the stapes;
- the consequences of destruction of the stapes;
- the function of the stapes;

- the problems that arise in replacing the stapes;
- the Tabor device composition and structure;
- the advantages of the Tabor device

**15. a. Find in the text the construction *are now able to help* and justify its use (not *can help* or *may help*).**

**b. Say what physicians and deaf patients *may, can* and *are able to do* for hearing restoration. Use the following words and word combinations.**

to consult a physician, to have hearing devices free of charge, to undergo an operation, to replace the stapes, to implant prosthetic devices, to develop new prosthetic devices, to advise

**16. Study the models to say what you can *do* and *make*.**

**Models:** 1. I can **do** any work (housework, cooking, any boring job, etc.).
2. I can **make** a plan (a cake, tea, a boat, etc.).

**17. Study the model and make up sentences of your own after it.**

**Model:** The artificial part of the Tabor device **made it easy/difficult to** stabilize it within the ear.

**18. a. Study the models and make up sentences using the words in the columns below.**

**Models:** 1. The doctor **ordered** the nurse **to bring** as much hot water as possible.
2. The doctor **made** the patient **stay** in bed.
The patient **was made to stay** in bed.
3. The doctor **allowed** the patient **to get** up.
4. The doctor **let** the patient **walk** as much as he wanted to.

| | | | |
|---|---|---|---|
| The doctor | | his assistant | (to) bring another device. |
| The nurse | ordered | the nurse | (to) develop a new technique. |
| The patient | made | the patient | (to) take medicine 3 times a day. |
| The chief | allowed | the researcher | (to) read another survey. |
| The teacher | let | the teacher | (to) start the experiment. |
| The student | | the student | (to) fill the container with reagents. |
| | | | (to) do exercises. |
| | | | (to) inject a dye. |
| | | | (to) test the new drug. |
| | | | (to) wear a splint. |

**b. Say what somebody *made* or *let* you *do* some time ago.**

**19. a. Study the models and make up sentences using the words in the columns below.**

**Models:** I. 1. **I'd like** you **to read** this text now.
2. I **want** you **to read** this text in class.

II. 1. I **know** him **to be** friendly.
2. I **consider** her **to be** clever. (I **consider** her **clever**.)
3. I **think** them **to be** clever. (I **think** them **clever**.)
4. He **finds** us **to be** friendly. (He **finds** us **friendly**.)

| | | | |
|---|---|---|---|
| I | 'd like<br>want<br>know<br>consider<br>think<br>find | my friend<br>my friends<br>him<br>her<br>them | to help me.<br>to stay in hospital for 2 weeks.<br>to work in a research laboratory.<br>to do research work.<br>to find another substitute.<br>to be keen on surgery.<br>to be healthy.<br>to study lung diseases.<br>to develop a new device. |

**b. Tell your classmates what you would like/want them to do.**

**c. Speak about your classmates using the models and the words below.**

clever, silly, nice, beautiful, handsome, friendly, honest, dishonest, upset, happy, careful, careless

**20. a. Translate the words in brackets into English to complete the sentences.**

1. The new device (лучше и безопаснее).
2. Dr. Sadé is the (самый лучший) specialist in ear diseases here.
3. The patient is (лучше) today.
4. The new type of graft is (хуже).
5. This is the (самый худший) way to test new techniques.
6. The new device requires (меньше) ceramic.
7. The bone section of the Tabor device makes the chance of rejection by the body (менее) possible.
8. The chance of rejection of this prosthesis by the body is (наименее) possible.
9. The Tabor device is the (наиболее) effective.
10. The goal of this research is to make an artificial replacement (более) anatomical.

**b. Compare some phenomena or objects you often deal with (имеете дело с) using the comparisons of *good, bad, little, much, many*.**

**21. a. Find in the text the word combination *another bone* and justify its use.**

**b. Study the models and fill in the blanks with *another, other, others, the other* to complete the sentences.**

**Models:** 1. I don't like this book. Give me **another**!
2. Both books are popular, but I've read this one. Give me **the other**!
3. Some modern books are very interesting, **others** (**other** books) are dull.

1. Some physical impacts are dangerous, ... injuries cause no dramatic consequences.
2. Some inflammations are really bad, ... inflammatory processes subside quickly and leave no complications.
3. Some bones in the middle ear are very solid, ... bones are rather fragile.
4. The researcher used for the prosthesis of the stapes a piece of ... bone in the middle ear.
5. One ear hears well, ... does not function properly.
6. ... advantage of the Tabor device is that it is not rejected by the body.
7. The Tabor device consists of two parts: one is made of bone, ... is ceramic.
8. On examination the physician revealed that of all the ear bones only the stapes had been destroyed, ... bones were safe.

**c. Make up sentences with the words *another, the other, others, other*; describe situations when you may use the sentences.**

**22. a. Study the models and make up short dialogues: your classmate asks you about your plan or intention, you reveal your plan or intention.**

**Models:**

| | |
|---|---|
| – What are you going to do in summer?/What do you plan/ intend to do in summer? | – Что вы собираетесь дедать летом?/Что вы планируете на лето? |
| – I'm going to ... /I plan to .../ I intend to ... | – Я собираюсь .../Я планирую .../ Я намерен ... |

**b. Suppose you work in Dr. Sadé's laboratory, reveal your plans using the word combinations below.**

- to improve the artificial prosthetic device for ear,
- to develop a new type of the substitute for the stapes,
- to find a way to prevent the artificial substitute rejection,
- to use the patient's bone for the substitute to prevent its rejection

**23. Revise the text and give the English to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

глухой, частично восстановить слух, по крайней мере, благодаря чему-л., несколько новых типов, протезные устройства, протез, протезы, предпринять шаги, комплексное исследование, заменить чем-л., в равной степени эффективный, искусственный заменитель, хрупкая кость, среднее ухо, внутреннее ухо, три маленькие кости, звуковые волны, барабанная перепонка, физическое воздействие, сильное воспаление, заменить кость, удачно имплантировать, отторгаться организмом, справиться с проблемой, треугольная форма, искусственная часть, укрепить внутри уха, снизить возможность, керамическая основа, природный аналог, повредить стремя (слуховую кость)

**24. Translate the following sentences into English.**

1. Эта кость наиболее хрупкая.
2. В ухе есть три кости, которые передают звуковые волны во внутреннее ухо.
3. У вас повреждена барабанная перепонка.
4. Такое воспаление может привести к потере слуха.
5. Протезы выдают бесплатно в клиниках Великобритании.
6. Трудно восстановить слух, если повреждено стремя.
7. Новая методика должна быть по крайней мере такой же эффективной, как и та, что использовалась ранее.
8. Керамическая основа лучше для таких протезов.
9. Имплантированные протезы иногда отторгаются организмом.
10. Новые линзы позволили уменьшить расплывчатость изображения.
11. Протезные устройства можно было бы использовать, если бы они были одобрены специальной комиссией.
12. Трудно восстановить зрение после такой травмы.

13. Он сказал, что смог восстановить зрение этому пациенту благодаря новой методике, которая была разработана нашей исследовательской группой.
14. Он сказал, что малая берцовая кость была повреждена много лет тому назад.
15. Врач сказал, что сможет заменить малую берцовую кость искусственным трансплантантом.
16. Нам надо было укрепить протез.
17. Мы могли заменить протез природным трансплантантом.
18. Врачи теперь имеют возможность частично восстанавливать слух глухим пациентам.
19. Нам иногда приходится подвергать пациентов риску при переливании крови в неотложных случаях.
20. Вам не следует брать слишком много крови для этого теста.
21. Вы могли использовать часть любой другой кости.
22. Некоторые кости большие и прочные, другие – тонкие и хрупкие.
23. Мне бы хотелось провести несколько апробаций этой методики.
24. Любой сенсор может выявить такие изменения.
25. Вы можете носить эти линзы при очень ярком свете.
26. Комплексное исследование показало, что питание с высоким содержанием жиров ведет ко многим заболеваниям.
27. Существует несколько видов протезов для барабанной перепонки.
28. Многие врачи могут провести это исследование лучше и быстрее.
29. Эта процедура менее безопасная.
30. Укрепите протез как можно лучше!
31. Не благодарите меня за это!
32. Мы не смогли справиться с этой проблемой.
33. Они не справились с этой проблемой. Теперь мы попробуем понять, в чем дело.
34. Он слышит, но совсем мало.
35. Он немного слышит.
36. Я знаю мало таких случаев.
37. Я не могу делать много таких процедур каждый день.

38. Врач заставил пациента лечь в постель. Пациента заставили лечь в постель. Врач не позволил пациенту вставать.
39. Я думаю, что он честный. (*2 вар.*)
40. Я считаю, что она красивая. (*2 вар.*)
41. Я знаю, что он хорошо говорит по-английски.
42. Я бы хотел, чтобы врач использовал неинвазивный метод исследования.
43. Я хочу, чтобы вы назвали болезни, которые вы перенесли в детстве.
44. Сколько костей было повреждено?
45. Почему вы воспользовались искусственным имплантантом?
46. Что позволило восстановить слух?
47. Кто разработал такой замечательный протез?

## SPEECH EXERCISES

**1. Make up short talks where the phrases below can be key phrases.**

1. We are now able to help such patients thanks to … .
2. We have made great strides toward … .
3. The technique is tricky.
4. The procedure is difficult.
5. The idea has been rejected.
6. The device closely matches the shape of its counterpart.
7. The new technique made it easy to prevent complications.
8. We have successfully applied the new method.

**2. Revise the text and answer the following questions.**

1. How can physicians help deaf people regain their hearing?
2. How are sound waves transmitted into the inner ear? How may the process be destroyed?
3. Why is replacement of the stapes difficult?
4. What composition and structure has the Tabor device got?
5. What are the advantages of the Tabor device?
6. What results has Dr. Sadé obtained?

**3. Point out the facts in the text which may be necessary for advertising the device.**

**4. Say what you can about a) the consequences of the destruction of the stapes; b) replacement of the destroyed stapes. Use the following word combinations.**

a) a trio of tiny bones, to work in sequence, to transmit sound waves, eardrum, the inner ear, the middle ear, most fragile, a physical impact, a bad inflammation, to destroy the stapes, deaf, to be difficult to replace

b) the most fragile bone, to be difficult to replace, to be rejected by the body, the Tabor device, to be more anatomical, other prostheses, to match the triangular shape of, a ceramic base, to be attached to, a tiny piece of bone, to make it easy to stabilize smth, within the ear, the bone section, to lessen the chance of rejection, to implant successfully in patients

**5. Say what medical aid to deaf patients or patients with poor hearing is possible.**

**6. Make up questions for Dr. Sadé to find out about the continuation of his research.**

**7. a. Suppose you are visiting the laboratory of Dr. Sadé. Express belief, disbelief, doubt, certainty about what you are shown; say what you like and dislike about the device; express disappointment because of the poor results of the first operation; say you are happy the researchers improved the method later; ask for permission to assist in an operation; find out about the intention of the researchers to continue their work; suggest how to continue the research.**

**b. Make up a conversation including the components in (a).**

# Unit 13

*Text:* **Insulin Receptors in Disease and Alone.**

*Grammar:*
1. The Complex Object (with the Participle).
2. The Participle *(continued)*.
3. The construction **used to (do)**.

*Word Formation:* The suffix **-ness**; the prefixes **in-**, **extra-**.

*Speech Patterns:*

1. **Approval.**
- Good! That's good!
- (That's) Very sensible of you!
- That's a good idea!

2. **Disapproval.**
- That's too bad!
- That's not a good idea!
- What for?
- That's silly!

## TEXT

## INSULIN RECEPTORS IN DISEASE AND ALONE

The membrane molecules, or receptors, that sense specific chemicals are a cell's window to the extracellular world. The effects of insulin, for example, depend on the amounts and binding strengths of specific receptors. Diabetes may result from insufficient or blocked receptors, as well as from insufficient insulin.

The other diseases, besides diabetes, now appear to be associated with insulin receptor defects. At the Endocrine Society meetings in Anaheim, Calif.,[1] scientists from the National Institute of Health used to report until recently insensitivity to insu-

lin in cells in an infant with severe growth retardation. The child has a congenital syndrome known as leprecaunism (the symptoms are low birth weight, abundant body hair and elfin facial features[2]) and very high blood insulin levels. Ellen E. Schilling and collaborators say their findings are "the first report of a genetic insulin receptor defect in man".

Now scientists report that changes in insulin receptors may also have an effect on aging.[3] Dorothy B. Villee and colleagues at Children's Hospital Medical Centre in Boston have examined responsiveness to insulin among cells from normal persons of different ages and from patients with progeria – a rare disorder that mimics aging.[4] Children with progeria lose their hair, develop thickened, wrinkled skin and usually die of coronary disease in their early teens.[5] Cells from normal youngsters grow rapidly in the laboratory and, when exposed to insulin, increase protein and glycogen production. Cells from elderly persons or patients with progeria grow at one-fourth the normal rate[6] and show little or no response to insulin. The investigators suggest that aging changes in cell membranes or in their receptors render the cells less able to respond to[7] external stimuli.

## Notes

1 **Calif. = California** – Калифорния
2 **elfin facial features** – мелкие черты лица
3 **to have an effect on aging** – оказывать влияние на процесс старения
4 **to mimic aging** – имитировать старение
5 **in their early teens** – в подростковом возрасте
6 **to grow at one-fourth the normal rate** – расти в четыре раза медленнее
7 **to render the cells less able to respond to ...** – снизить способность клеток реагировать на ...

## Vocabulary to the Text

**abundant** [ə'bʌndənt] *a* обильный
**age** [eɪdʒ] *v* стареть
**bind** [baɪnd] **(bound)** *v* связывать
**collaborator** [kə'læbəreɪtə] *n* сотрудник
**congenital** [kən'dʒenɪtl] *a* врожденный
**defect** [dɪ'fekt] *n* дефект, порок
**depend (on)** [dɪ'pend] *v* зависеть (от)
**diabetes** [ˌdaɪə'bi:ti:z] *n* диабет
**disorder** [dɪs'ɔ:də] *n* нарушение, расстройство

**elfin** ['elfɪn] *a* мелкий, миниатюрный
**expose** [ɪks'pouz] *v* подвергать (воздействию)
**feature** ['fi:tʃə] *n* черта характера, лица; особенность
**glycogen** ['glaɪkoudʒən] *n* гликоген, животный крахмал
**growth** [grouθ] *n* рост, развитие
**increase** [ɪn'kri:s] *v* возрастать, увеличивать(ся)
**infant** ['ɪnfənt] *n* младенец
**insensitivity** [ɪn,sensɪ'tɪvɪtɪ] *n* нечувствительность
**insufficient** [,ɪnsə'fɪʃənt] *a* недостаточный
**insulin** ['ɪnsjulɪn] *n* инсулин
**level** ['levl] *n* уровень
**low** [lou] *a* низкий
**membrane** ['membreɪn] *n* оболочка
**mimic** ['mɪmɪk] *v* имитировать
**molecule** ['mɔlɪkju:l] *n* молекула
**protein** ['prouti:n] *n* белок
**rapid** ['ræpɪd] *a* быстрый, скорый
**rare** [rɛə] *a* редкий
**receptor** [rɪ'septə] *n* рецептор
**response** [rɪs'pɔns] *n* реакция
**retardation** [,ri:tɑ:'deɪfən] *n* задержка (развития)
**sense** [sens] *n* чувство
**stimulus** ['stɪmjuləs] *n* (*pl* **stimuli**) стимул
**strength** [streŋθ] *n* сила
**syndrome** ['sɪndroum] *n* синдром
**weight** [weɪt] *n* вес
**wrinkle** ['rɪŋkl] *v* сморщиваться

## COMPREHENSION TASKS

1. **Translate the title of the text into Russian. What problem is supposed to be considered in the text?**

2. **Study the Notes and Vocabulary to the Text. Read the text and point out:**

– the diseases discussed in the text;
– the defects the discussed diseases are associated with.

## VOCABULARY AND GRAMMAR EXERCISES

1. **a. Pick out in the text the words with the suffixes *-or*, *-al*, *-ive*, *-ation* (*-tion*, *-ion*), *-ness*, *-en*, *-ly*, *-ist*, the prefixes *in-*, *extra-*, *dis-* and point out their stems. Translate the words to the stems of which the suffixes and the prefixes are added and the derived words into Russian.**

**b. Point out the stems in the derived words below; translate the words into Russian.**

– incomparable, infrequent, inaccurate, incapable, inefficient, incomplete;
– extraordinary, extracosmical, extra-official, extra-atmospheric;
– boldness, dryness, wetness, eagerness, readiness, darkness

**c. Reproduce the word combinations with *receptor*, *specific*, *insufficient*, *insensitivity*, *congenital*, *genetic*, *disorder*, *rapidly*, *elderly* from the text; translate them into Russian. Make up sentences of your own with them.**

**2. Find in the text the sentences with the words *binding, meeting, aging* (3) and translate them into Russian.**

**3. Find in the text the sentences with the words *blocked, reported, known, wrinkled, exposed* and translate them into Russian.**

**4. Find in the text the construction *to be associated with* and translate it into Russian.**

**5. a. Find in the text the constructions *has a congenital syndrome, have an effect on, have examined,* translate them into Russian and point out the meaning of the verb *to have* in each construction.**

**b. Translate the following sentences into Russian; pay attention to the way the italicized constructions are translated.**

1. The study shows that cataract *has* multiple *causes.*
2. One of the basic problems identified in the medical relationship is that the *expectations* which the physician and patient *have* of each other are rarely congruent.
3. A group of US research workers who *have had* successful experimental results with this substance on animal tissues *have* now *reported* an important new development.
4. Trials *have been undertaken* with plasma obtained from convalescents, but the effectiveness of the new technique *has not yet been established.*
5. The possible use of medical preparations to prevent the development of certain types of cancer *has been attracting* increasing attention.
6. Such a complication after flu seems *to have been reported* only once earlier.
7. Despite certain limitations, electrocardiographic signs *have proved* to be useful in monitoring the course of hypertension.
8. Of those patients with angiographically verified aneurysm 61.9% were found *to have elevated* blood pressure.

**6. a. Study the ways of translating the Perfect Participle into Russian in the sentences below.**

1. **Having examined** (завершив какое действие?) the action of sunlight on eyes, Dr. Brown suggested a new treatment technique for eye diseases.

*Изучив* действие солнечного света на глаза, д-р Браун предложил новый способ лечения некоторых глазных болезней.

2. The highest results showed the students (какие?) **having attended** all extra classes.

Самые высокие результаты показали студенты, *которые посетили/посещали (посетившие)* все дополнительные занятия.

**b. Translate the following sentences into Russian; pay attention to the way the italicized constructions are translated.**

1. It was an error to attribute increased malaria to mosquitoes *having developed* resistance to insecticides.
2. Infertility is usually defined as the inability of a couple to conceive after *having made* attempts for one year.
3. He had experienced a period of lethargy and trouble with memory and thinking before his hospitalization, after *having worked* as a sterilizing operator for a period of 2 months. Later he developed ethylene oxide polyneuropathy.
4. *Having* thus *identified* the major learning needs and programs of hospital staff members, attention may be turned to available education resources, including community hospital staff itself.

**7. Find out which words in the word combinations below name phenomena and which describe their qualities; translate them into Russian.**

the membrane molecules, insulin receptor defects, growth retardation, birth weight, body hair, blood insulin levels, cell membranes

**8. Study the text and justify the use or absence of articles with nouns.**

**9. Choose modifiers in (b) to the words in (a).**

a) molecule, receptor, membrane, defect, to die, to grow
b) membrane, specific, blocked, insufficient, insulin, receptor, genetic, cell, from elderly people, of coronary disease, in their early teens, rapidly, at one-fourth the normal rate

**10. a. Point out the predicates in the text; justify occasional use of the Past Indefinite.**

**b. Say if the verb *may* provides the meaning of *permission*, *possibility* or *uncertainty* (two sentences in the text).**

**c. Find in the text the construction which provides the meaning of ability.**

**11. Find out the functions of the italicized words in the sentences below and say if they are nouns or verbs.**

1. The membrane molecules *sense* specific chemicals.
2. The students are discussing the functions of the organs of *sense.*
3. Diabetes may *result* from insufficient or blocked receptors.
4. The *result* of the experiment is very hopeful.

**12. Find in the text the sentences with the prepositions *on, from;* translate into Russian the word combinations with them proceeding from the context.**

**13. Use the verbs in brackets in suitable forms to complete the sentences, give several versions if possible; translate the sentences into Russian.**

1. A receptor (to sense) a specific chemical.
2. The membrane molecules (to call) receptors.
3. Some receptors (to block).
4. The effect of insulin may (to depend) on binding strength of specific receptors.
5. Diabetes may (to cause) by insufficient insulin.
6. Leprecaunism (to associate) with insulin receptor defects.
7. Scientists (to report) insensitivity to insulin in cells in an infant with severe growth retardation.
8. Scientists (to report) in the recent issue of the *Medical Journal* that severe growth retardation (to cause) by insensitivity to insulin in receptors.
9. Scientists said leprecaunism (to know) some decades before.
10. Very high insulin levels may (to associate) with blocked insulin receptors.
11. The scientist said that a genetic insulin receptor defect in men (to report) in the next issue of the journal.
12. Scientists stated that progeria (to be) a rare disorder.
13. The child (to lose) his hair and (to develop) thickened, wrinkled skin.
14. Children with progeria usually (to die) in their early teens.
15. Cells when exposed to insulin (to increase) protein production.
16. Cells (to show) no response to insulin.

**14. Revise the text and point out facts which you had known and had not known before you read it.**

**15. Revise the text and make up questions to find out in detail about:**

- the work of insulin receptors in disease and alone;
- the causes of diabetes, leprecaunism, progeria;
- the symptoms of diabetes, leprecaunism, progeria

**16. a. Study the models and make up sentences using the words below, translate the sentences into Russian.**

**Models:**

1. I **saw** him **enter** the room. — Я *видел,* как он *вошел* в комнату.
2. I **saw** him **entering** the room. — Я *видел,* как он *входил* в комнату.
3. I **heard** him **speak** English. — Я *слышал,* как он *говорит* по-английски.
4. I **heard** him **speaking** English. — Я *слышал,* как он *говорил* по-английски.

| | | |
|---|---|---|
| | | carry out an experiment. |
| | him | carrying out an experiment. |
| | her | take blood for tests. |
| I saw | them | taking blood for a test. |
| I've seen | the researcher | speak to patients. |
| I heard | the nurse | speaking to a patient. |
| | the doctor | report the results of investigation. |
| | | reporting the results of investigation. |

**b. Say what you saw or heard your classmates do or doing. Describe the situations when he or she did or was doing that.**

**17. Study the models and say a) what you used to do in the past; b) when, where, how, etc. you usually did that.**

**Models:**

He **used to** look through newspapers in the morning. — Он *имел привычку* просматривать газеты утром.

He **usually** looked through newspapers in the morning. — Он *обычно* просматривал газеты утром.

**18. a. Study the models and make up short dialogues: your classmate says what he/she used to do and is going to do, you express either approval or disapproval.**

**Models:**

1. – I used to try my discoveries on animals first. — – Я всегда проверял свои изобретения на животных.
   – That's good!/ That's very sensible of you! — – Это хорошо!/Это очень разумно!
2. – I used to smoke much. — – Я имел привычку много курить
   – That's too bad! — – Напрасно. (*букв.* Жаль!)

| | |
|---|---|
| 3. – I'm going to stay in the country all summer. | – Я собираюсь жить в деревне все лето. |
| – Good!/That's a good idea!/What for? | – Хорошо!/Хорошая мысль!/ Зачем?. |
| 4. – I'm going to work all night. | – Я собираюсь работать всю ночь. |
| – That's too bad!/ That's silly. | – Очень плохо!/Это глупо. |

**b. Suppose you are visiting a laboratory that works on insulin receptor defects; express your approval or disapproval of the following plans of the research team.**

– to study insulin insufficiency in children with growth retardation,
– to study insulin dependence of aging,
– to study responsiveness to insulin of cells from normal people,
– to study responsiveness to insulin in various age groups,
– to give up the investigation,
– to leave the investigation at this stage,
– not to study progeria as a rare disease

**19. Revise the text and give English equivalents to the following Russian words and word combinations (pay attention to prepositions); make up sentences of your own with them.**

распознавать специфические химические соединения, оболочка клетки, молекулы оболочки, действие инсулина, например, зависеть от, количество чего-л., сила связывания, быть результатом чего-л., недостаточное количество рецепторов, блокированные рецепторы, недостаточное количество инсулина, другие болезни, дефект рецепторов, нечувствительность к, сильное отставание, у ребенка, у человека, врожденный синдром, низкий вес при рождении, обильное оволосение тела, черты лица, высокий уровень инсулина в крови, генетический дефект, изменения в, оказывать влияние на, ответная реакция на, среди клеток, помимо чего-л., клетки здоровых людей, диабет, различный возраст, редкое нарушение, утратить волосы, утолщенная кожа, морщинистая кожа, умереть от, быстро расти, клетки увеличивают выделение белка, внешние стимулы

**20. Translate the following sentences into English.**

**I.**

1. У старых людей морщинистая кожа.
2. У этого ребенка врожденный порок сердца.
3. Диабет может развиться в результате недостаточности соответствующих рецепторов.
4. У этого больного сердечная недостаточность.
5. Больной много лет страдает сердечной недостаточностью.
6. Прогерия – редкое заболевание.
7. Аллергические реакции могут возникнуть в результате воздействия на организм внешних факторов.
8. Эти растения быстро растут.
9. Они сказали, что уже выяснили скорость выработки белка при таких заболеваниях.
10. Он сказал, что нарушения в этих рецепторах приводят к развитию нескольких различных заболеваний.
11. Генетические нарушения могут приводить к тяжелым заболеваниям.
12. Она потеряла волосы после облучения.
13. Кожа этой пациентки утолщена.
14. Помимо низкого веса, у пациента наблюдается обильное оволосение тела.
15. Тяжелые случаи диабета трудно лечить.
16. Это заболевание более редкое.
17. Прогерия – еще одно заболевание, связанное с нарушением реакции рецепторов оболочек клеток на инсулин.
18. Вы бы лучше провели комплексное исследование механизма реакции рецепторов на такие химические соединения.

**II.**

1. Существует несколько гипотез о причинах таких заболеваний.
2. Через месяц мы представим по крайней мере предварительные результаты исследований.
3. Действие рецепторов предварительно рассмотрено на искусственной модели клетки, созданной в нашей лаборатории.
4. Надо предпринять шаги по устранению этого нарушения.
5. Надо было как следует осмотреть среднее ухо этого пациента.

6. Вы могли потерять все зубы при таком заболевании.
7. Мы сможем выявить все факторы внешней среды, которые приводят к таким нарушениям.
8. Нам надо будет изучить механизм выработки белка при таких заболеваниях.
9. Нам приходится искать неинвазивные методы исследования для таких пациентов.
10. Результаты исследований не зависели от нас.
11. Этот рецептор не воспринимает звуковые волны.
12. Исследователь не смог ничего предложить.
13. Он не предложил ни одной интересной идеи за последнее время.
14. Мы не смогли бы справиться с таким врожденным нарушением, если бы не знали этих методов лечения.

### III.

1. Я хочу, чтобы он определил скорость роста клеток. Я знаю, что он может определить ее.
2. Я заставлю ее повторить эксперимент. Я позволяю ей повторять эксперимент много раз.
3. Я видел, как они проводят эксперименты. Я видел, как они проводили эксперименты.
4. Они раньше всегда изучали любые редкие заболевания.
5. Он собирается описать какое-то редкое заболевание.
6. Не сравнивайте эти данные!
7. Сравните уровень инсулина в крови больных диабетом и здоровых людей.
8. Вы пытались остановить кровотечение?
9. Вы пытались установить причины нарушения деятельности рецепторов?
10. Вы сумели подтвердить вашу гипотезу?
11. Что подтверждает вашу гипотезу?
12. Почему вы думаете, что эта процедура более безопасна?

## SPEECH EXERCISES

**1. Make up short talks where the phrases below can be key phrases.**

1. The effects of ... depend on the amount of ...

2. ... may result from insufficient ...
3. Changes in ... may have an effect on ...
4. At the recent conference ...
5. The recent investigation ...

**2. Revise the text and answer the following questions.**

1. What is the function of the cell membrane molecules (receptors)?
2. What diseases may be associated with insulin receptor defects?
3. What may diabetes result from?
4. What insulin receptor defect is characteristic for leprecaunism? for progeria?
5. What symptoms are characteristic for leprecaunism? for progeria?

**3. Point out the facts in the text which prove the same origin (происхождение) of diabetes, progeria and leprecaunism.**

**4. Say what you can about a) causes of diabetes, b) disorders caused by insulin receptor defects, c) insulin receptor defects. Use the following word combinations.**

a) specific receptors, amount of, binding strength of, to depend on, to result from, insufficient receptors, insufficient insulin, blocked receptors, little response to

b) a high blood insulin level, weakness, low birth weight, abundant body hair, elfin facial features, thickened skin, wrinkled skin, to lose hair

c) to grow, normal rate, to produce protein and glycogen, to increase production, to be exposed to insulin, to respond to, changes in cell membranes, changes in receptors

**5. Say what medical treatment for diabetics is necessary, give reasons why.**

**6. Make up questions for the investigation team working on insulin receptor defects to find out about the continuation of their research.**

**7. a. Suppose you are visiting a laboratory working on disorders described in the text. Ask for permission to study medical histories of leprecaunism and progeria cases; express belief or disbelief in regard to the data being objective; express certainty or doubt about the insulin receptor origin of leprecaunism and progeria; suggest how to continue the research; express approval or disapproval of the intentions of the research team.**

**b. Make up a conversation including the components in (a).**

# Part II

# DISEASES AND REMEDIES

# Section 1

# DISEASES: PATHOLOGY, ETIOLOGY, DIAGNOSTICS, TREATMENT

Study each text in the set of texts below, analyse carefully all the facts in it and do the following exercises to the extent provided for by the information in the text. Also try to use the information you have received from other sources and switch on your imagination doing the exercises. When discussing the disease presented in a text make the most of the vocabulary of the previous texts.

**Ex. 1. Translate the text into Russian and learn the words which are new to you.**

**Ex. 2. Point out anatomical terms in the text and define the location of the corresponding phenomena.**

**Ex. 3. Point out sentences or parts of sentences which reveal the main idea of each passage in the text, compose a summary of the text.**

**Ex. 4. Make up a short talk to reveal the pathology, etiology, symptoms and treatment of the disease presented in the text to junior medical students in a simple way.**

**Ex. 5. Consult the sets of words below and name possible diagnostic and treatment techniques for the disease presented in the text.**

## I.

**questioning** – опрос
**visual** ['vɪzjuəl] **examination** – осмотр
**routine** [ru:'ti:n] **examination** – обследование в общепринятом порядке
**auscultation** [ˌɔ:skəl'teɪʃən] – выслушивание
**palpation** [pæl'peɪʃən] – пальпация
**percussion** [pə'kʌʃən] – выстукивание
**manual** ['mænjuəl] **examination** – исследование руками
**speculum** ['spekjuləm] **examination** – исследование при помощи зеркала

## II.

**blood analysis count** – анализ крови
**general blood analysis** – общий анализ крови
**protein** ['prouti:n] **test** – проба на белок
**bilirubin** [ˌbaɪlɪ'ru:bɪn] **test** – проба на билирубин
**viscosity** [vɪs'kɔsɪtɪ] **test** – проба на вязкость
**blood clotting test** – проба на свертываемость крови
**hemoglobin** [ˌhi:mou'gloubɪn] test – проба на гемоглобин
**lipid** ['lɪpɪd] **test** – проба на липиды
**blood uric** ['juərɪk] **acid** ['æsɪd] **test** – проба на мочевую кислоту крови
**blood urea** ['juərɪə] **test** – проба на мочевину крови
**lymphocyte** ['lɪmfousaɪt] **test** – проба на лимфоциты
**erythrocyte** [ɪ'rɪθrəsaɪt] **sedimentation** [ˌsedɪmen'teɪʃən] **test** – СОЭ – скорость оседания эритроцитов
**cholesterol** [kə'lestərɔl] **test** – проба на холестерин
**prothrombin** [prou'θrɔmbɪn] **test** – проба на протромбин
**enzyme** ['enzaɪm] **test** – проба на ферменты
**colour index** ['ɪndeks] – цветной показатель
**electrolyte** [ɪ'lektroulaɪt] **test** – проба на электролиты
**sugar test** – проба на сахар
**occult** [ɔ'kʌlt] **blood test** – анализ на скрытую кровь
**urine** ['juərɪn] **analysis** – анализ мочи
**faeces** ['fi:si:z] **analysis** – анализ кала
**sputum** ['spju:təm] **examination** – исследование мокроты
**smear** [smɪə] **test** – исследование мазка
**bacteriologic** [bæk'tɪərɪə'lɔdʒɪk] **test** – бактериологические исследования
**biochemical** ['baɪou'kemɪkəl] **examination** – биохимические исследования
**blood/faecal/nasal culture** ['kʌltʃə] – посев крови/испражнений/выделений из носа
**gastric juice** [dʒu:s] **analysis** – анализ желудочного сока
**gastric juice acidity** [ə'sɪdɪtɪ] – кислотность желудочного сока
**duodenal** [ˌdju:ou'di:nl]/**gastric intubation** [ˌɪntju'beɪʃən] – зондирование двенадцатиперстной кишки, желудка
**examination of vomit** – исследования рвотной массы
**biopsy** ['baɪɔpsɪ] – биопсия
**histological examination** – гистологические исследования
**allergic** [ə'lə:dʒɪk] **test** – аллергическая проба

## III.

**X-ray examination** – рентгенологическое исследование
**roentgenography** [ˌrɔntgə'nɔgrəfɪ] – рентгенография
**roentgenophotography** – флюорография
**angiography** [ˌændʒɪ'ɔgrəfɪ] – ангиография
**venography** [vi:'nɔgræfɪ] – веногpафия
**coronary arteriography** [ˌɑ:rti:rɪ'ɔgræfɪ] – коронарная артериография
**electrocardiography** [ɪˌlektrouka:dɪ'ɔgræfɪ] – электрокардиография
**tomography** [tou'mɔgræfɪ] – томография
**duodenography** ['djuoudi:'nɔgræfɪ] – дуоденография
**cholecystography** ['kɔli:sɪs'tɔgræfɪ] – холецистография
**pyelography** ['paɪə'lɔgræfɪ] – пиелография
**urethrography** ['ju:ri:'θrɔgræfɪ] – уретрография
**urography** ['ju:rɔgræfɪ] – урография
**scanning** – сканирование
**radioisotopic** [ˌreɪdɪou'aɪsoutɔpɪk] **investigation** – радиоизотопное исследование
**colonoscopy** [ˌkoulɔ'nɔskəpɪ] – колоноскопия
**gastroscopy** [gæs'trɔskəpɪ] – гастроскопия
**dermoscopy** [də:'mɔskəpɪ] – дермоскопия
**bronchoscopy** [brɔŋ'kɔskəpɪ] – бронхоскопия
**rhinoscopy** [raɪ'nɔskəpɪ] – риноскопия
**laryngoscopy** [ˌlærɪŋ'gɔskəpɪ] – ларингоскопия
**pharyngoscopy** [ˌfærɪŋ'gɔskəpɪ] – фарингоскопия
**ultrasound** [ˌʌltrə'saund] **examination** – ультразвуковое исследование

## IV.

**medication** – лечение лекарственными препаратами
**therapy** – терапия
**operation** – операция
**surgery** – хирургия
**massage** ['mæsɑ:ʒ] – массаж
**diet** ['daɪət] – диета
**physiotherapy** [ˌfɪzjə'θerəpɪ] – физиотерапия
**hydrotherapy** [ˌhaɪdrou'θerəpɪ] – водолечение
**thermotherapy** [ˌθə:mou'θerəpɪ] – термолечение
**light therapy** – светолечение
**electrotherapy** [ɪˌlektrou'θerəpɪ] – электротерапия
**laser** ['leɪzə] **treatment** – лечение лазером
**bed regime** [reɪ'ʒi:m] – постельный режим

**Ex. 6. Give a description of a case of the disease presented in the text: reveal the patient's complaints, the examination technique, the treatment procedure, the doctor's prognosis.**

**Ex. 7. Tell a patient suffering from the disease presented in the text how to prepare for the necessary laboratory examinations.**

**Ex. 8. Explain the treatment procedure to a patient suffering from the disease presented in the text.**

**Ex. 9. Suggest how to prevent the disease presented in the text.**

# 1. Peptic ulcer

A circumscribed ulceration of the mucous membrane penetrating through the muscularies mucosa and occurring in areas bathed by acid and pepsin.

Peptic ulcers, known as duodenal ulcers, occur commonly in the first cm of the duodenum, ulcers are also common along the lesser curvature of the stomach (gastric ulcers).

**Etiology.** Understanding of the cause of peptic ulcer is limited to the knowledge that peptic ulcer does not occur if the stomach does not secrete acid. Since the vast majority of people secrete acid, it remains to be established why some individuals develop ulcers and others do not.

Stress has been implicated as a commonly occurring precipitating factor. Gastric and duodenal ulcers may differ in etiology since gastric ulcer, unlike duodenal ulcer, tends to develop later in life and is not associated with increased acid secretion.

**Symptoms and Signs.** The usual peptic ulcer has a chronic, recurrent course. Symptoms vary with the location of the ulcer and the age of the patient. Pain is the characteristic symptom; it may be described as burning, aching, soreness, and empty feeling, or hunger.

In patients with duodenal ulcer, pain is usually absent when the patient awakens, and first appears in mid-morning. It is relieved by food, but recurs an hour or so after a meal.

As to the symptoms of gastric ulcer, eating causes pain.

**Treatment.** Treatment of gastric and duodenal ulcer is designed to neutralize or decrease gastric acidity. A diet with hourly feeding of milk may help to relieve symptoms and is therefore desirable during the first week of treatment of an active ulcer.

# 2. Chronic cholecystitis

Chronic inflammatory reaction of the gallbladder.

**Etiology.** The disease may be caused by a gallstone; however, a specific bacterium (e.g. Salmonella typhosa) has occasionally been incriminated.

Chronic cholecystitis usually develops insidiously without a definite preceding attack of acute cholecystitis.

**Symptoms and Signs.** The symptoms and signs can be ill-defined. They vary with the extent of the disease, the presence and location of gallstones, and the presence of complications. Many patients complain of only flatulence with occasional nausea. Most have episodes of epigastric pain and right upper quadrant pain radiates to the back below the right scapula. The pain may be mild to excruciating. The pain often occurs after a meal or awakens the patient at night; symptoms are frequently related to the ingestion of fatty food. The physical examination will at times reveal tenderness to deep pressure in the right upper quadrant of the abdomen.

**Treatment.** Removal of the gallbladder (cholecystectomy) is the treatment of choice unless other serious illness contraindicates surgery. However, complete relief of the dyspeptic symptoms should not be expected in all patients with chronic cholecystitis.

# 3. Cirrhosis

The disorganization of liver architecture by widespread fibrosis and nodule formation, characterized by impaired liver function.

**Etiology.** The vast majority of cases are secondary to chronic alcohol abuse. There are also many congenital causes.

**Symptoms and Signs.** Many patients may develop fairly extensive cirrhosis and still appear asymptomatic and well-nourished, often making the diagnosis difficult and somewhat surprising. Generalized symptoms of weakness, anorexia, malaise and weight loss are common. In the alcoholic, malnourished patient, there may be other coexisting findings, such as distal peripheral neuropathy and glossitis.

A palpable, firm, smooth liver with blunt edge is characteristic.

**Treatment.** Treatment of cirrhosis is based upon the etiology; e.g., total abstinence from alcohol, a nutritious diet containing protein as tolerated by the patient, reasonable rest, and supplementation with therapeutic multivitamins. In the patient with severe complications of alcoholism, supplementation with thiamine may be important initially.

# 4. Proctitis

Inflammation of the rectal mucosa.

**Etiology.** Ulcerative colitis and regional enteritis are the most common causes of proctitis.

**Symptoms, Signs and Diagnosis.** Rectal discomfort and repeated urge to defecate are characteristic. Painful diarrhea occurs, with passages of blood, mucus, and pus. Defecation is often followed by tenesmus. In early proctitis, the rectal mucosa is red and edematous and bleeds readily. In more severe cases pinpoint abscesses and superficial ulcerations may be present.

# 5. Acute pyelonephritis

An acute, diffuse, often bilateral, pyogenic infection of kidney.

**Etiology.** Infections usually occur by ascending route after entering the urethral meatus. Obstruction predisposes to infection. The role of obstruction, whether anatomic or physiologic, in predisposing to infection cannot be overemphasized; obstruction causes statis, statis invites bacterial invasion, and infection is established.

**Symptoms and Signs.** Typically, the onset is rapid and characterized by chills, fever, flank pain, nausea, and vomiting. Physical examination will sometimes show some abdominal rigidity, which must be distinguished from the rigidity produced by intraperitonal disease. If rigidity is absent or slight, a tender, enlarged kidney may sometimes be palpable.

**Treatment.** Antimicrobal therapy should be instituted as soon as the diagnosis has been established and urine has been sent to the laboratory for culture and sensitivity tests. Treatment should be continued for 10 to 14 days and urine cultures repeated after completion of therapy. If obstruction is present, surgery may be required.

# 6. Common gynecological practice and approach to the patient

Certain principles are helpful in arriving at proper gynecologic diagnosis and therapy.

**The history** should include a menstrual history (date of the last period, usual duration of flow, regularity or irregularity of periods, age at menarche, etc.), a thorough review of previous pregnancies and contraceptive use, and a review of any previous major illnesses and the patient's general health. Attention should be given to ascertaining what drugs a patient is taking since persons using estrogens, thyroid products, or other common drugs for long periods may not think to mention them without careful questioning.

**The gynecological examination** should include a physical examination covering such points as the patient's height, weight, blood pressure, auscultation of the heart and lungs, and abdominal palpation. The pelvic examination should begin with inspection of the external genitalia and, after inserting a speculum, the cervix and vaginal wall. Manual palpation should disclose the size, shape, position, and mobility of the uterus and the presence of adnexal tenderness or masses. Frequent errors include failing to have the patient empty her bladder before the pelvic examination and omitting a rectovaginal examination and thus missing intraligamentous or parauterine masses. Examination of the patient's breasts, both visually and by palpation, is essential. Since breast cancer may progress from clinically undetectable to an advanced stage within a few months, and since most breast cancers are first suspected by patients, instruction in monthly breast self-examination should be standard practice.

# 7. Atherosclerosis

An arterial lesion characterized by initial thickening due to localized accumulation of lipids. The great clinical importance of atherosclerosis is due to its predilection for coronary, cerebral, and peripheral arteries.

**Pathology.** The atherosclerotic plaque, or atheroma, is the characteristic lesion and represents the end of a process that begins with lipids being deposited in the smooth muscle cell of both the intima and the media of the vessel wall. This initial deposition of lipids appears as a fatty streak in the arterial wall. Since fatty streaks appear in childhood and in both high- and low-risk populations, if they are transformed into plaques is uncertain. However, fatty streaks probably precede plaque formation, since both involve the same anatomic sites.

**Symptoms and Signs.** Atherosclerosis is characteristically silent until stenosis, thrombositis or aneurysm supervenes. Symptoms and signs may develop gradually as the atheroma gradually encroaches upon the vessel lumen. When a major artery is acutely occluded by thrombosis, embolism, dissecting aneurysm, or trauma, the symptoms and signs may be dramatic.

**Prophylaxis and Treatment.** Attempts to prevent atherosclerosis are focused on the risk factors. Diabetes mellitus and obesity should be treated early and adequately. The association of atherosclerosis with cigarette smoking warrants control of that habit. Regular exercise may help to prevent clinical coronary diseases and may be a useful therapeutic measure. Lowering blood pressure by appropriate treatment reduces the incidence of stroke and probably congestive heart failure, although it has not been demonstrated to decrease the incidence of myocardial infarction.

Treatment of atherosclerosis is directed at its complications, such as angina pectoris, myocardial infarction, arrhythmias, heart failure, and peripheral arterial occlusion.

# 8. Hypertension

Elevation of systolic and/or diastolic pressure, either primary or secondary.

**Primary** (essential) hypertension is not linked to a single etiology. Heredity predisposes to hypertension, but environmental, neurogenic, and vascular factors also interact and influence blood pressure (BP).

**Secondary** hypertension is associated with bilateral renal diseases.

**Symptoms and Signs.** Primary hypertension is asymptomatic until complications develop. Symptoms and signs are nonspecific and arise from complications in target organs. Dizziness, flushed faces, headache, fatigue, epistaxis, and nervousness are not caused by uncomplicated hypertension. Complications include left ventricular failure: atherosclerotic heart disease; retinal hemorrhages, exudates, and vascular accidents; cerebral vascular insufficiency and renal failure.

**Treatment.** Sedation, extra rest, prolonged vacation, admonitions not to worry, and attempts at weight reduction and dietary sodium restriction are poor substitutes for effective antihypertensive drug therapy. Patients with uncomplicated hypertension should live normal lives as long as their BP is controlled with medication. Dietary restrictions should be imposed only to control obesity or blood lipid abnormalities. With diuretics, a low sodium diet is usually unnecessary. Prudent exercise should be encouraged and cigarette smoking discouraged to reduce the risk of atherosclerotic heart disease.

# 9. Angina pectoris

The clinical syndrome due to myocardial ischemia producing a sensation of precordial discomfort, pressure, or a strangling sensation, characteristically precipitated by exertion and relieved by rest and sublingual nitroglycerin.

**Etiology.** Angina pectoris occurs when cardiac work and myocardial $O_2$ demanded exceed the ability of the arterial system to supply $O_2$.

**Symptoms and Signs.** The discomfort of angina pectoris is highly variable. It may be vague, barely troublesome ache, or it may rapidly become a severe, intense precordial crusing sensation. The discomfort is most commonly felt beneath the sternum, but may be anywhere in the precordial region. The pain may radiate to the left shoulder and down the inside of the left arm, even to the fingers. It may radiate straight through to the back, into the throat, the jaws, the teeth, and occasionally even down the right arm. Anginal discomfort may be felt in the upper or lower abdomen.

Angina pectoris is characteristically triggered by physical activity and usually persists not more than a few minutes, subsiding when the patient stops the precipitating activity.

**Prognosis.** The prognosis in angina pectoris is better than has commonly been supposed. Three major factors influence prognosis: age, extent of coronary disease, and ventricular function. An annual mortality rate of 3% has been reported in single-vessel disease, of 6% in two-vessel disease, and over 10% in three-vessel disease.

**Treatment.** The underlying disease, atherosclerosis, must be delineated and treated and risk factors reduced. Patients who smoke should discontinue the habit. Reduction of body weight in the overweight patient enhances a sense of well-being and reduces cardiac demand. Hypertension should be treated diligently, since even mild diastolic hypertension increases cardiac work. Angina sometimes improves markedly with treatment of mild left ventricular failure.

# 10. Congestive heart failure (CHF)

A clinical syndrome in which the heart fails to maintain an adequate output, resulting in diminished blood flow to the tissues, and congestion in the pulmonary and/or the systemic circulation.

**Physiology.** CHF is best understood by first reviewing normal heart function, which can be discussed from several points of view: hemodynamics, muscular function of the heart, ultrastructural relationship, energetics or the determination of myocardial $O_2$ consumption, biochemical mechanisms, the heart response to exercise, and the concept of cardiac reserve.

**Symptoms and Signs.** Heart failure may be predominantly left- or right-sided, may develop gradually, or may appear suddenly with acute pulmonary edema. Early manifestations of left ventricular failure include undue tachycardia, fatigue with exertion, dyspnea with mild exercise, and intolerance to cold. These symptoms may be important early clues. In advanced failure severe cough is a prominent symptom.

**Diagnosis.** There are no specific ECG findings in heart failure.

Chest X-rays are helpful in evaluating the presence and severity of heart failure, and its causes. Recognition of edema surrounding bronchioles, pericronchial cuffing, may help establish that heart failure is the cause of pulmonary infiltrates.

**Treatment.** Management of heart failure is based on the physiologic concept. Therapy includes rest, oxygenation, measures to improve myocardial contractivity, correction of arrhythmias, diuresis, sodium restriction.

# 11. Acute bronchitis

Acute inflammation of the tracheobronchial tree, general self-limited and with eventual complete healing and return of function. Though commonly mild, bronchitis may be serious in debilitated patients and in patients with chronic pulmonary or cardiac disease. Pneumonia is a critical complication.

**Etiology. Acute infectious bronchitis,** most prevalent in winter, may develop following the common cold or other viral infection of the nasopharynx, throat, or tracheobronchial tree, often with secondary bacterial infection. Exposure to air pollutants and possibly chilling, fatigue and malnutrition are predisposing or contributory factors.

**Acute irritative bronchitis** may be caused by mineral and vegetable dusts of various kinds; fumes from strong acids; or tobacco smoke.

**Symptoms and Signs.** Preliminary symptoms are coryza, malaise, chills, slight fever, back and muscle pain, and sore throat. Onset of cough usually signals onset of bronchitis. The cough is initially dry and non-productive, but small amounts of sputum are raised after a few hours or days. The sputum later becomes more abundant and mucoid or mucopurulent. Frankly purulent sputum suggests bacterial infection. In severe uncomplicated cases fever to 38.3 or 38.9°C (101 or 102°F) may be present for up to 3 to 5 days. Persistent fever suggests complicating pneumonia.

**Treatment.** General: rest is indicated until fever subsides. Fluids (up to 3000 or 4000 ml/day) are forced during the febrile course. An antipyretic analgetic such as aspirin relieves malaise and reduces fever.

Local: a cough mixture may be used if cough is troublesome and interferes with sleep.

Antibiotics: indicated when complicating factors or purulent sputum are present, or when high fever persists and the patient is more than mildly ill.

# 12. Bronchial asthma

**Etiology.** Bronchial asthma can occur secondarily to a variety of stimuli although the underlying mechanisms responsible for attacks of paroxysmal wheezing are unknown; inherital or acquired imbalance of adrenergic and cholinergic control of airway diameter has been implicated. Stresses to which individuals with hyper-reactive bronchial trees are subjected may precipitate asthma attacks. These stresses may include viral respiratory infection; exercise; emotional upset; nonspecific factors (e.g., changes in barometric pressure or temperature); inhalation of cold air or such irritants as gasoline fumes, fresh paint and other odors, or cigarette smoke; and exposure to specific allergens. Psychologic factors may affect the clinical course but are not assigned a primary etiological role.

**Symptoms and Signs.** An asthma attack may begin acutely with paroxysms of wheezing, coughing, and soreness of breath, or insidiously with slowly increasing symptoms and signs of respiratory distress. In either case, the patient usually first notices the onset of dyspnea, tachypnea, cough, and tightness or pressure in the chest, and may even notice wheeze. All of this may subside quickly or persist for hours to days. Pulmonary function abnormalities may persist for weeks to months after an acute attack.

Between acute attacks, physical examination may be normal during quiet respiration. However, sonorous or sibilant rales or fine wheezes may be heard during forced expiration or after the patient exercises.

**Diagnostic Tests.** Examination of the blood and sputum, chest X-ray, pulmonary function tests, static lung volumes and capacities, dynamic lung volumes and capacities, allergy skin test.

**General Principles of Treatment.** The clinical approach to an asthmatic patient should first exclude other diseases that can present cough and wheezing, and then identify and control environmental or other factors. Drug therapy is an important therapeutic modality and enables most patients to lead relatively normal lives with few adverse drug effects.

# 13. Approach to the patient with joint disease

A complete history and physical examination are essential to the diagnosis of joint disease, the correct interpretation of the physical changes, and the successful rehabilitation and treatment of the patient. Laboratory and X-ray data are usually of supplementary help. The complete physical examination is important since, in most patients, joint symptoms are part of a systemic disease. Even mildly inflammatory or non-inflammatory arthritis may be the first clue to the presence of serious systemic diseases such as rheumatic fever or carcinoma.

**Diagnosis.** 1. Examination of the musculoskeletal system follows a sequence of inspection, palpation, and determination of the range of motion of each involved joint areas. In most cases, this determines the presence of joint disease and helps to establish whether the joint, the adjacent structures, or both are involved. Involved joints should be compared with their involved opposites or with the examiner's joints.

2. Laboratory studies are useful in diagnosing the specific type of arthritis present.

3. X-rays are important in the initial evaluation of relatively localized unexplained complaints to detect possible primary or metastatic tumours, osteomyelitis, bone infarction, periarticular calcification, or other changes in deep structures that may escape physical examination. They are especially useful in examination of the spine.

**Treatment.** Complete bed rest is often indicated for a short period during the most active painful stage of severe disease. Although symptoms and signs often subside significantly over several weeks with little other treatment, they will probably recur unless anti-inflammatory drugs are given. In less severe cases, regular rest periods should be prescribed. Splints provide local joint rest. An ordinary nutritious diet is sufficient.

# 14. Contact dermatitis

An acute or chronic inflammation produced by substances in contact with the skin.

**Etiology.** Contact dermatitis may be caused by a primary chemical irritant or may be a delayed hypersensitivity reaction (allergic reaction).

**Symptoms and Signs.** Contact dermatitis ranges from transient redness to severe swelling with bulla formation; itching and vesiculation are common. Any part of the skin that comes in contact with a sensitizing or irritating substance may be involved. Characteristically, the dermatitis is sharply limited to the site of contact at first; later it may spread to other areas.

The course varies. If the cause is removed, simple erythema disappears within a few days and blisters dry up. Vesicles and bullae may rupture and crust. As the inflammation subsides, scarring and some temporary thickening of the skin occur.

**Treatment.** Treatment is ineffective unless the offending agent is removed. In the acute phase of dermatitis water soaks or compresses most effectively soothe and dry the lesions. Blisters may be drained, but the tops should not be removed. An oral corticosteroids should be given for 10 to 14 days in severe or extensive cases.

# 15. Throat diseases

**Pharyngitis.** Acute inflammation of the pharynx, usually viral in origin. It may be due to Group A ß-hemolytic streptococcus.

Fever, cervical adenopathy and leukocytosis are present in both viral and streptococcal pharyngitis but more marked in the latter.

Treatment includes rest, aspirin and warm saline gargles to relieve discomfort.

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

Family members' throats should also be cultured initially so that carriers may be treated at the same time. Tonsillectomy should be considered if, despite these precautions, acute tonsillitis develops after adequate treatment, or if chronic tonsillitis and sore throat persist or are relieved only briefly by antibiotic therapy.

**Laryngitis.** Inflammation of the larynx.

Acute upper respiratory infections are the most frequent causes of acute laryngitis. Excessive use of the voice and inhalation of irritating substances can cause acute and chronic laryngitis.

Unnatural change of voice is usually the most prominent symptom. Hoarseness and a constant urge to clear the throat

may occur. Symptoms vary with the severity of the inflammation. Fever, malaise, dysphagia, and throat pain may occur in the more severe infections; dyspnea may be apparent if laryngeal edema is present. Laryngoscopic examination discloses a mildly or highly engorged mucosa, which may also be edematous.

Vocal cord movement is frequently impeded. If a membrane is present, diphtheria must be suspected.

# 16. External otitis

Infection of the ear canal may be localized or diffuse, involving the entire canal. External otitis is more common in summer swimming season. It is often called swimmer's ear.

**Symptoms and Signs.** Patients with diffuse external otitis complain of itching, pain, a foul-smelling discharge, and loss of hearing if the canal becomes swollen or filled with purulent debris. The skin of the external auditory canal appears red, and littered with moist purulent debris.

# 17. Eye: clinical examination

Some ocular complaints are nonspecific, so that a complete history and a careful examination of all parts of the eye and its adnexa are necessary to identify the source of the complaint. The patient should be asked about the location and duration of the symptom: the presence and nature of the pain, discharge, or redness; and any change in visual acuity.

The first step in ocular evaluation is to record the visual acuity, testing the eyes separately and together, and with and without glasses if the patient wears them. Gross inspection of the

glasses will provide an approximation of the degree of ametropia (e.g., shortsightedness, farsightedness, astigmatism). The visual fields and ocular motility may also be determined at this time.

Under focal light and magnification (e.g., provided by a headband loup), systemic examination of the eyes should proceed. The eyelids are examined for lesion of the margins and subcutaneous tissue. The lids are then inspected for foreign bodies, signs of inflammation, or other abnormalities.

The cornea should be examined closely. The size and shape of the pupils and their reaction to light and accommodation should be noted. Ocular tension and anterior chamber should be estimated.

**Cataract.** Development or degenerative opacity of the lens.

The cardinal symptom is a progressive painless loss of vision. Pain occurs if the cataract swells and produces secondary glaucoma. The degree of loss of vision depends on the extent of opacity.

**Glaucoma.** A disorder characterized by increased intraocular tension and impaired vision, ranging from slight loss to absolute blindness.

The causes are unknown. Vasomotor and emotional instability, heredity are among the predisposing factors.

The increased intraocular tension is related to an imbalance between production and outflow of the aqueous humor. Obstruction to outflow appears to be mainly responsible for this imbalance.

# 18. Thyroid diseases

**1. Myxedema.** The characteristic reaction to thyroid hormone deficiency in adult. It may result from radioiodine therapy, surgical excision, or primary atrophy of the thyroid, or may devel-

op secondary to hypo-function of the anterior pituitary or the hypothalamus.

**Symptoms and Signs.** There is gradual change in the patient's personality, coupled with the characteristic myxedematous faces, large tongue, slow and deep toned speech, dry thickened edematous skin, and alopecia of the scalp and eyebrows. Mental apathy, drowsiness, sensitivity to cold, and constipation are common.

**Treatment.** Recovery following administration of thyroid hormone is usually excellent, but therapy must be continued for life.

**2. Hyperthyroidism.** A condition characterized by excessive production of thyroid hormone by one or more autonomous nodules.

**Symptoms and Signs.** The disease is characterized by nervousness, weakness, heat sensitivity, sweating, restless overactivity, weight loss (usually with increased appetite), tremor, palpitation, stare, and lid lag.

**Treatment.** Therapy is aimed at suppressing excess hormone production in the thyroid. Several methods are available: antithyroid drugs, radioiodine therapy, and surgery. The autonomous ("hot") nodule is treated by radioiodine or surgery. Antithyroid drugs interfere with the formation of thyroid hormone primarily by blocking the organic binding of iodine.

# Section 2

# REMEDIES

Study each text in the set of texts below, analyse carefully all the facts in it and do the following exercises to the extent provided for by the information in the text. Make the most of the information and vocabulary in Section 1 (Part II) of this book.

**Ex. 1. Translate the text into Russian and learn the words which are new to you.**

**Ex. 2. Point out in the text disorders which are considered as indications and contraindications for the drug and describe their pathology, etiology and signs. Consult reference books or textbooks if necessary.**

**Ex. 3. Point out adverse reactions in the text and say what diseases may be characterized by such symptoms and signs.**

**Ex. 4. Point out the ingredients of the drug in the text and say what action they perform in the body.**

**Ex. 5. Say to what patients you would prescribe the drug presented in the text and justify your opinion.**

**Ex. 6. Say to what patients you would not prescribe the drug presented in the text and justify your opinion.**

**Ex. 7. Say what you should warn a patient of when prescribing the drug presented in the text.**

**Ex. 8. Explain to a patient how to use the drug presented in the text.**

# 1. Donnatal

**Actions.** This drug combination provides natural belladonna alkaloids in a specific fixed ratio combined with phenobarbital to provide peripheral anticholinergic/antispasmodic action and mild sedation.

**Indications.** For use as adjunctive therapy in the treatment of irritable bowel syndrome (irritable colon, spastic colon, mucus colitis) and acute enterocolitis. May also be useful as adjunctive therapy in the treatment of duodenal ulcer.

**Contraindications.** Glaucoma, obstructive uropathy, obstructive disease of the gastrointestinal tract, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status, severe ulcerative colitis, especially if complicated by toxic megacolon.

**Adverse Reactions.** Adverse reactions may include urinary hesitancy and retention, blurred vision; tachycardia; palpitation; increased ocular tension; loss of taste sense; headache; nervousness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; musculoskeletal pain; severe allergic reaction.

**Dosage and Administration.** Donnatal Tablets or Capsules. Adults: one or two Donnatal tablets or capsules three or four times a day according to condition and severity of symptoms.

Donnatal Elixir. Adults: one or two teaspoonfuls of elixir three or four times a day according to condition and severity of symptoms. Children: every 4 or 6 hours half a teaspoonful.

# 2. K-phos neutral

**Description.** Each tablet contains 852 mg sodium phosphate, 155 mg monobasic potassium phosphate, and 130 mg monobasic sodium phosphate monohydrate.

**Indications.** K-PHOS NEUTRAL lowers urinary calcium levels and increases phosphate and pyrophosphate.

**Contraindications.** This product is contraindicated in patients with infected urolithiasis or stone formation, in patients with severely impaired renal function, or in the presence of hydrophosphatemia.

**Precautions.** Caution should be exercised when prescribing this product in the following conditions: cardiac disease, severe adrenal insufficiency, acute dehydration, severe renal insufficiency, renal function impairment or chronic renal disease, cirrhosis of the liver or severe hepatic disease, peripheral or pulmonary edema, hypertension, toxemia of pregnancy, acute pancreatitis, and rickets.

Laboratory testing: careful monitoring of renal function and serum electrolytes may be required at periodic intervals during this therapy.

**Adverse Reactions.** Gastrointestinal upsets may occur with phosphate therapy. The following side effects have been reported with less frequent incidence: headache, dizziness, mental confusion, weakness or heaviness of legs, unusual tiredness, muscle cramps, pain or weakness of hands or feet, fast or irregular heartbeats, shortness of breath, swelling of legs, unusual weight gain, low urine output, unusual thirst.

**Directions.** Adults: one or two tablets four times a day with a full glass of water.

# 3. Massengill

**Active ingredient.** Cepticin (30% povidone-iodine).

**Indications.** For symptomatic relief of minor irritation and itching associated with vaginitis due to Candida albican, Trichomonas vaginalis.

**Action.** Povidone iodine is widely recognized as an effective broad spectrum microbicide against both gram negative and gram positive bacteria, fungi, yeasts.

**Warnings.** If symptoms persist after seven days of use, or if redness, swelling or pain develop during treatment, consult a physician. Women with iodine sensitivity should not use this product. Women may douche during menstruation if they douche gently. Do not douche during pregnancy unless directed by a physician. Douching does not prevent pregnancy.

**Dosage and Administration.** Dosage is provided as a single unit concentrate to be added to 6 oz. of sanitized water supplied in a disposable bottle. A specially designed nozzle is provided. After use, the unit is discarded. Use one bottle a day for seven days. Even if symptoms are relieved earlier, treatment should continue for full seven days.

# 4. Inderal

**Description.** Inderal (propranolol hydrochloride) is a synthetic beta-adrenergic receptor-blocking agent. It is a white crystalline solid which is readily soluble in water and ethanol.

**Indications and Usage.** Inderal is indicated in the management of hypertension, angina pectoris due to coronary atherosclerosis, cardiac arrhythmias, myocardial infarction, migraine.

**Contraindications.** Inderal is contraindicated in cardiogenic shock, sinus bradycardia, bronchial asthma, congestive heart failure.

**Warnings.** Cardiac failure: synthetic stimulation may be a vital component supporting circulary function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure.

**Adverse Reactions.** Most adverse reactions have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia, congestive heart failure, hypotension, arterial insufficiency.

Central Nervous System: mental depression manifested by insomnia, weakness, fatigue, visual disturbances, hallucinations, short-term memory loss, emotional disturbances.

Gastrointestinal: nausea, vomiting, epigastric distress, constipation, colitis.

Allergic: erythematous rash, pharyngitis, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

**Dosage and Administration.** Hypertension. The usually individual dosage is 40 mg twice daily. The usually maintenance dosage is 120 to 240 mg per day.

Angina pectoris. Starting with 10-20 mg three to four times daily, before meals and at bedtime, dosage should gradually be increased at three- to seven-day intervals until optimal response is obtained.

Arrhythmias. 10-30 mg three or four times daily, before meals and at bedtime.

Myocardial Infarction. The recommended daily dosage is 180-240 mg per day, in divided doses.

Migraine. The initial dose is 80 mg daily, in divided doses. The usual effective dose range is 160-240 mg per day. The dosage may be increased gradually to achieve optimal migraine prophylaxis.

# 5. Cafergot

**Description.** Ergotamine tartrate – 1 mg, Caffeine – 100 mg.

**Action.** Ergotamine is an alpha adrenergic blocking agent with a direct stimulating effect on the smooth muscle of peripheral and cranial blood vessels and produces depression of central vasomotor canters.

Caffeine, also a cranial vasoconstrictor, is added to further enhance the vasoconstrictive effect.

Many migraine patients experience nausea and vomiting during attacks making it impossible for them to retain any oral medication. In such cases, therefore, the only practical means of medications is through the rectal route, where medication may reach the cranial vessels directly.

**Indications.** Indicated as therapy to abort or prevent vascular headache.

**Contraindications.** Peripheral vascular disease, coronary heart disease, hypertension, impaired or renal function, sepsis and pregnancy. Hypersensitivity to any of the components.

**Precautions.** Although signs and symptoms of ergotism rarely develop even after long term intermittent use of the orally or rectally administered drug, care should be exercised to remain within the limits of the recommended dosage.

**Adverse Reactions.** Vasoconstrictive complications, at time of a serious nature, may occur. These include pulselessness, weakness, muscle pain and precordial distress and pain. Other adverse effects include transient tachycardia or bradycardia, nausea, vomiting, localized edema and itching.

**Dosage and Administration.** Procedure: for the best results, dosage should start at the first sign of an attack; 2 tablets at start of attack, 1 additional tablet every 1/2 hour (maximum 6 tablets per attack).

# 6. Chloraseptic

**Active ingredients.** Phenol and Sodium Phenolate.

**Inactive ingredients.** Color, corn syrup, flavor, water.

**Indications.** Chloraseptic provides temporary relief of discomfort due to minor sore throat and mouth and gum irritations. They also may be used for topical anesthesia as an adjunct to systemic antibacterial therapy. For prompt temporary relief of pain and discomfort associated with the following conditions: medical – oropharyngitis and throat infections; acute tonsillitis, and post-tonsillectomy soreness; dental – minor irritation or injury of soft tissue of the mouth; minor oral surgery.

**Administration and Usage.** Adults and children over 3 years of age: dissolve 1 lozenge in the mouth every 2 hours. Children under 12 years of age: do not exceed 8 lozenges per day.

**Warnings.** Consult physicians if sore throat is severe or lasts more than 2 days or is accompanied by high fever, headache, nauseas or vomiting. Nor for children under 3 unless directed by physician or dentist. In case of accidental overdosage, seek professional assistance or contact a poison control centre immediately.

# 7. Rufen (Ibuprofen)

**Description.** Rufen is propionic acid. It is a white powder with a melting point of 74-77°C and is slightly soluble in water (about 1 mg/ml) and readily soluble in organic solvents such as ethanol and acetone.

Rufen is nonsteroidal anti-inflammatory agent. It is available in 400 and 600 mg tablets for oral administration.

**Indications and Usage.** Rufen is indicated for relief of the signs and symptoms of rheumatoid arthritis and osteoarthritis.

Rufen is indicated for relief of mild to moderate pain.

Since there have been no controlled trials to demonstrate whether there is any beneficial effect of harmful interaction with the use of Rufen in conjunction with aspirin, the combination cannot be recommended.

Controlled clinical trials to establish the safety and effectiveness of Rufen in children have not been conducted.

**Contraindications.** Rufen should not be used in patients who have previously exhibited hypersensitivity to it, or individuals with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin, iodines or other nonsteroidal anti-inflammatory agents. Anathylactoid reactions have occurred in such patients.

**Adverse Reactions.** Nausea, epigastric pain, heartbeat, diarrhea, vomiting, indigestion, constipation, dizziness, headache, nervousness, rash, decreased appetite, edema, fluid retention.

**Dosage and Administration.** Rheumatoid arthritis and osteoarthritis.

Suggested dosage: 400 mg every 4-6 hours.

Do not exceed 2,400 mg total daily dose.

If gastrointestinal complaints occur, administer Rufen with meal and milk.

# 8. Metadine ointment (probidone-iodine)

**Action.** Betadine ointment, in a water soluble base, is a topical agent active against organisms commonly encountered in skin and wound infections.

**Indications.** Therapeutically. Betadine ointment may be used as an adjunct to systemic therapy; for primary or secondary topical infections caused by iodine susceptible organisms such as infected surgical incisions, infected traumatic lesions.

Prophylactically. Betadine ointment may be used to prevent microbial contamination in burns, incisions and other topical lesions. The use of Betadine ointment for abrasions, minor cuts, and wounds may prevent the development of infections and permit wound healing.

**Administration.** Apply directly to affected area as needed. May be bandaged.

# 9. Collyrium

**Description.** A neutral borate solution containing boric acid and sodium borate as buffers, not more than 0.002% trimerosal as a preservative and water.

**Indications.** For flushing or irritating the eye to remove loose foreign material, air pollutants.

**Dosage and Administration.** Patients are advised to rinse cup clean before each use and to avoid contamination of rim and inside surface of cup. The half filled cup should be applied to the affected eye and pressed tightly to the eye to prevent the escape of the liquid, and the head tilted backward. Eyelids should be opened wide and the eyeball rotated to ensure thorough bathing with the lotion. The cup should be rinsed with clean water after each use. After every use the bottle can be reclosed by placing the threaded eyecup on the bottle which replaces the disposable top after opening.

**Warnings.** Patients are advised of the following. To avoid contamination of this product do not touch top container to

any other surface. Replace cup after using. Not for use in open wounds in or near the eyes. Consult a doctor if you experience eye pain, change in vision, continued redness or irritation of the eye, or if the condition worsens or persists.

This product contains thimerosal as a preservative. Do not use this product if you are sensitive to mercury. Do not use if solution changes color or becomes cloudy or with a solution for contact lens or other eye lotions containing polyvinyl alcohol. Container should be kept tightly closed at room temperature approximately 77°F (25°C).

# 10. Blenoxane

**Action.** Although the exact mechanism of action of Blenoxane is unknown, available evidence would seem to indicate that the mode of action is the inhibition of DNA synthesis with some evidence of lesser inhibition of RNA and protein synthesis.

60% to 70% of an administered dose is recovered in the urine as active bleomycin.

**Indications.** Blenoxane should be considered as palliative treatment. It has been shown to be useful in the management of the following neoplasms either as a single agent or in combinations with other approved chemotherapeutic agents:

Squamous Cell Carcinoma – head, neck, including mouth, tongue, tonsils, nasopharynx, oropharynx, sinus, palate, lip, skin, larynx, cervix and vulva. The response to Blenoxane is poorer in patients with head and neck cancer previously irradiated.

Lymphomas – Hodgkin's disease, reticulum cell sarcoma, lymphosarcoma.

**Contraindications.** Blenoxane is contraindicated in patients who have demonstrated a hypersensitive or an idiosyncratic reaction to it.

**Adverse Reactions.** Patients receiving Blenoxane must be observed carefully and frequently during and after therapy. It should be used with extreme caution in patients with significant impairment of renal or pulmonary function. In approximately 1% the nonspecific pneumonitis induced by Blenoxane progresses to pulmonary fibrosis and death. Although this is age and dose related, the toxicity is unpredictable. Frequent roentgenograms are recommended.

Idiosyncratic reactions similar to anaphylaxis have been reported in 1% of lymphoma patients treated with Blenoxane. Since these usually occur after the first or second dose, careful monitoring is essential.

**Dosage.** Because of the possibility of an anaphylactoid reaction, lymphoma patients should be treated with 2 units or less for the first 2 doses. If no acute reaction occurs, then the regular dosage schedule may be followed.

# VOCABULARY

## A a

**abdomen** ['æbdəmən] *n* живот, брюшная полость
**ability** [ə'bɪlɪtɪ] *n* способность
**abnormal** [əb'nɔ:məl] *a* аномальный, ненормальный
**abnormality** [ˌæbnɔ:'mælɪtɪ] *n* ненормальность, аномалия
**abort** [ə'bɔ:t] *v* делать аборт; остановить рост, купировать
**abrasion** [ə'breɪʒən] *n* ссадина
**abscess** ['æbsɪs] *n* абсцесс
**absence** ['æbsəns] *n* отсутствие
**absent** ['æbsənt] *a* отсутствующий
**absolute** ['æbsəlu:t] *a* полный; безусловный
**abstinence** ['æbstɪnəns] *n* воздержание
**abundant** [ə'bʌndənt] *a* обильный
**abuse** [ə'bju:s] *n* злоупотребление
**accident** ['æksɪdənt] *n* случайность, несчастный случай
**accidental** [ˌæksɪ'dentəl] *a* случайный; второстепенный
**accommodation** [əˌkɔmə'deɪʃn] *n* адаптация
**accompany** [ə'kʌmpənɪ] *v* сопутствовать
**accumulation** [əˌkju:mju'leɪʃn] *n* скопление
**acetone** ['æsɪtoun] *n* ацетон
**ache** [eɪk] *n* продолжительная, тупая боль
**achieve** [ə'tʃi:v] *v* добиться; доводить до конца; достигать
**acid** ['æsɪd] *n* кислота
**acidity** [ə'sɪdɪtɪ] *n* кислотность
**acquire** [ə'kwaɪə] *v* приобретать; овладевать
**act** [ækt] *n* поступок; *v* действовать
**activator** ['æktɪveɪtə] *n* возбудитель, активатор
**active** ['æktɪv] *a* активный
**activity** [æk'tɪvɪtɪ] *n* активность, деятельность
**acuity** [ə'kju:ɪtɪ] *n* острота
**acute** [ə'kju:t] *a* острый (вопрос, зрение и т.д.)
**add** [æd] *v* прибавлять, присоединять
**addition** [ə'dɪʃən] *n* дополнение; увеличение
**additional** [ə'dɪʃənəl] *a* дополнительный
**adenopathy** [ˌædɪ'nɔpæθɪ] *n* аденопатия (увеличение лимфатических узлов)
**adequate** ['ædɪkwɪt] *a* соответствующий, адекватный, отвечающий требованиям
**adjacent** [ə'dʒeɪsənt] *a* смежный, прилегающий
**adjunct** ['ædʒʌŋkt] *n* дополнение, приложение
**administer** [əd'mɪnɪstə] *v* назначать (лекарство, лечение)
**administration** [ədˌmɪnɪs'treɪʃn] *n* назначение; прием (лекарства)
**admonition** [ˌædmə'nɪʃən] *n* предостережение; указание
**adnexa** [əd'neksə] *n* придатки (*анатом.*)
**adrenal** [əd'ri:nəl] *a* надпочечный; *n* надпочечник
**adrenergic** [ˌædren'ə:dʒɪk] *a* адренергический; *n* средство
**adult** ['ædʌlt] *a* взрослый
**advance** [əd'vɑ:ns] *n* продвижение вперед; *v* продвигаться
**adverse** ['ædvə:s] *a* неблагоприятный
**affect** [ə'fekt] *v* воздействовать, влиять
**age** [eɪdʒ] *n* возраст; *v* стареть
**agent** ['eɪdʒənt] *n* вещество; фактор
**aid** [eɪd] *n* помощь; *v* помогать
**aim** [eɪm] *n* цель, намерение

**airway** ['ɛəweɪ] *n* воздушные пути
**alcohol** ['ælkəhəl] *n* спирт; алкоголь
**alkaloid** ['ælkələɪd] *n* алкалоид
**allergen** ['ælə:dʒən] *n* аллерген
**allergy** ['ælədʒɪ] *n* аллергия
**alliance** [ə'laɪəns] *n* союз, содружество
**alopecia** [ˌælə'pi:ʃɪə] *n* алопеция, облысение
**ametropia** [ˌeɪme'troupɪə] *n* аметропия (дефект рефракции глаза)
**amount** [ə'maunt] *n* количество
**amputate** ['æmpjuteɪt] *v* ампутировать
**analyse (analyze)** ['ænəlaɪz] *v* анализировать
**analyser (analyzer)** ['ænəlaɪzə] *n* анализатор
**anaphylaxis** [ˌænəfɪ'læksɪs] *n* анафилаксия
**anatomic(al)** [ˌænə'tɔmɪk(əl)] *a* анатомический
**anesthesia (=anaesthesia)** [ˌænɪs'θi:zjə] *n* анестезия
**aneurism** ['ænjuərɪzəm] *n* аневризм
**angina (pectoris)** [æn'dʒaɪnə] *n* стенокардия
**annual** ['ænjuəl] *a* ежегодный
**anorexia** [ˌænə'reksɪə] *n* потеря аппетита
**anterior** [æn'tɪərɪə] *a* передний
**antibiotic** [ˌæntɪbaɪ'ɔtɪk] *n* антибиотик
**anticholinergic** [ˌæntɪkoulɪ'nə:dʒɪk] *a* антихолинергический; *n* средство
**apathy** ['æpəθɪ] *n* апатия
**apparent** [ə'pærənt] *a* явный, несомненный; видимый
**appear** [ə'pɪə] *v* появляться
**appetite** ['æpɪtaɪt] *n* аппетит
**apply** [ə'plaɪ] *v* применять; обращаться (за помощью); прикладывать
**approach** [ə'proutʃ] *n* приближение, подход; *v* приближаться, подходить
**appropriate** [ə'proupɪɪt] *a* соответствующий, подходящий, свойственный
**approve** [ə'pru:v] *v* одобрять; утверждать
**approximately** [ə'prɔksɪmɪtlɪ] *adv* приблизительно
**approximation** [əˌprɔksɪ'meɪʃən] *n* приближение к значению
**aqueous** ['eɪkwɪəs] *a* водяной
**area** ['ɛərɪə] *n* область, сфера, пространство
**arise** [ə'raɪz] **(arose, arisen)** *v* появляться, проистекать
**arm** [ɑ:m] *n* рука
**arrhythmia** [eɪ'rɪθmɪə] *n* аритмия
**arterial** [ɑ:'tɪərɪəl] *a* артериальный
**arteriogram** [ɑ:'ti:rɪougræm] *n* артериограмма
**artery** ['ɑ:tərɪ] *n* артерия
**arthritis** [ɑ:'θraɪtɪs] *n* артрит
**artificial** [ˌɑ:tɪ'fɪʃəl] *a* искусственный
**ascend** [ə'send] *v* подниматься
**assail** [ə'seɪl] *v* атаковать
**assign** [ə'saɪn] *v* определять, предназначать
**associate** [ə'souʃɪeɪt] *v* соединять, ассоциировать
**asthma** ['æsmə] *n* астма
**asthmatic** [æs'mætɪk] *a* астматический
**astigmatism** [æs'tɪgmətɪzəm] *n* астигматизм
**asymptomatic** [æˌsɪmptə'mætɪk] *a* бессимптомный
**atherosclerosis** [ˌæθərəskliə'rousɪs] *n* атеросклероз
**atony** ['ætənɪ] *n* атония
**atrophy** ['ætrəfɪ] *n* атрофия
**attach** [ə'tætʃ] *v* прикреплять

**attack** [ə'tæk] *n* приступ
**attempt** [ə'tempt] *n* попытка
**attention** [ə'tenʃən] *n* внимание
**auditory** ['ɔ:dɪtərɪ] *a* слуховой
**autonomous** [ɔ:'tɔnəməs] *a* автономный
**available** [ə'veɪləbl] *a* имеющийся в наличии; доступный
**average** ['ævərɪdʒ] *n* среднее число; *a* средний
**avert** [ə'və:t] *v* отводить
**avoid** [ə'vɔɪd] *v* избегать
**awake** [ə'weɪk] **(awoke, awaked)** *v* будить

## B b

**back** [bæk] *n* спина
**backward** ['bækwəd] *a* обратный; *adv* назад, наоборот
**bacterium** [bæk'tɪərɪəm] *n* (*pl* **bacteria**) бактерия
**bandage** ['bændɪdʒ] *n* повязка; *v* делать повязку
**base** [beɪs] *n* основа; *v* основываться
**bathe** [beɪð] *v* обмывать, промывать
**become** [bɪ'kʌm] **(became, become)** *v* становиться
**believe** [bɪ'li:v] *v* верить; полагать
**below** [bɪ'lou] *adv* ниже; *prep* под
**beneath** [bɪ'ni:θ] *adv* внизу
**beneficial** [ˌbenɪ'fɪʃəl] *a* благотворный, целебный
**bifocal** ['baɪ'foukəl] *a* двухфокусный
**bilateral** [beɪ'lætərəl] *a* двусторонний
**bind** [baɪnd] **(bound)** *v* связывать
**biochemical** ['baɪou'kemɪkəl] *a* биохимический
**biological** [ˌbaɪə'lɔdʒɪkəl] *a* биологический
**biologist** [baɪ'ɔlədʒɪst] *n* биолог
**birth** [bə:θ] *n* рождение
**bladder** ['blædə] *n* мочевой пузырь
**blast** [blɑ:st] *n* взрыв; *v* взрывать
**bleed** [bli:d] **(bled)** *v* кровоточить
**blind** [blaɪnd] *a* слепой
**blindness** ['blaɪndnɪs] *n* слепота
**blister** ['blɪstə] *n* волдырь
**block** [blɔk] *v* блокировать
**blockade** [blɔ'keɪd] *n* блокада
**blood** [blʌd] *n* кровь
**blunt** [blʌnt] *a* тупой (угол)
**blur** [blə:] *n* неясное очертание; *v* сделать неясным, затуманить
**body** ['bɔdɪ] *n* тело, туловище
**bond** [bɔnd] *v* связывать
**bone** [boun] *n* кость
**boric** ['bɔ:rɪk] *a* борный
**bottle** ['bɔtl] *n* флакон
**bowel** ['bauəl] *n* кишка
**bradycardia** [ˌbrædɪ'kɑ:dɪə] *n* брадикардия
**brain** [breɪn] *n* мозг
**break** [breɪk] **(broke, broken)** *v* разбивать, разрушать
**breast** [brest] *n* молочная железа
**breath** [breθ] *n* дыхание, вздох
**brief** [bri:f] *a* краткий, сжатый
**bright** [braɪt] *a* яркий
**broad** [brɔ:d] *a* широкий, обширный
**bronchiole** ['brɔŋkɪoul] *n* бронхиола
**bronchitis** [brɔŋ'kaɪtɪs] *n* бронхит
**buffer** ['bʌfə] *n* буфер
**bulla** ['bu:lə] *n* волдырь, пузырь
**burn** [bə:n] *n* ожог; *v* **(burnt)** жечь

## C c

**caffeine** ['kæfɪi:n] *n* кофеин
**calcification** [ˌkælsɪfɪ'keɪʃən] *n* обызвествление, отвердение
**calcium** ['kælsɪəm] *n* кальций
**call** [kɔ:l] *v* называть; звать, призывать
**canal** [kə'næl] *n* канал, проход

**cancer** ['kænsə] *n* рак
**capacity** [kə'pæsɪtɪ] *n* вместимость; способность
**capsule** ['kæpsju:l] *n* капсула
**carcinoma** [ˌkɑ:sɪ'noumə] *n* карцинома
**cardiac** ['kɑ:dɪək] *n* средство, возбуждающее сердечную деятельность
**cardinal** ['kɑ:dɪnəl] *a* главный, основной, кардинальный
**cardiogenic** [ˌkɑ:dɪou'dʒenɪk] *a* кардиогенный
**cardiovascular** [ˌkɑ:dɪou'væskjulə] *a* сердечнососудистый
**care** [kɛə] *n* уход, забота
**careful** ['kɛəful] *a* заботливый, внимательный, аккуратный
**carotid** [kə'rɔtɪd] *n* сонная артерия
**carrier** ['kærɪə] *n* носитель
**carry** ['kærɪ] *v* нести; проводить
**case** [keɪs] *n* случай
**cataract** ['kætərəkt] *n* катаракта
**cause** [kɔ:z] *n* причина; *v* быть причиной
**caution** ['kɔ:ʃən] *v* предостерегать
**cell** [sel] *n* клетка
**ceramic** [sɪ'ræmɪk] *a* керамический
**cerebral** ['serɪbrəl] *a* мозговой
**cervical** ['sə:vɪkəl] *a* затылочный; шейный
**cervix** ['sə:vɪks] *n* шейка матки
**chamber** ['tʃeɪmbə] *n* камера
**chance** [tʃɑ:ns] *n* случай, возможность, шанс
**change** [tʃeɪndʒ] *n* перемена, обмен; *v* изменить, сменить
**characteristic** [ˌkærɪktə'rɪstɪk] *a* характерный
**characterize** ['kærɪktəraɪz] *v* характеризовать
**chemical** ['kemɪkəl] *a* химический; *n* химический препарат
**chest** [tʃest] *n* грудная клетка
**chief** [tʃi:f] *n* глава; *a* главный
**chill** [tʃɪl] *n* озноб
**chloride** ['klɔ:raɪd] *n* хлорид
**choice** [tʃɔɪs] *n* выбор
**cholecystitis** [ˌkɔli:sɪs'taɪtɪs] *n* холецистит
**cholinergic** [ˌkoulɪ'nə:dʒɪk] *a* холинергический
**chronic** ['krɔnɪk] *a* хронический
**circulation** [ˌsə:kju'leɪʃən] *n* циркуляция
**cirrhosis** [saɪ'rousɪs] *n* цирроз печени
**claim** [kleɪm] *v* претендовать, заявлять
**clarify** ['klærɪfaɪ] *v* прояснить, сделать прозрачным
**clear** [klɪə] *a* ясный; *v* расчищать; освобождать
**clinical** ['klɪnɪkəl] *a* клинический
**clot** [klɔt] *n* сгусток, тромб
**cloudy** ['klaudɪ] *a* мутный
**clue** [klu:] *n* ключ (к разгадке)
**coexist** ['kouɪg'zɪst] *v* сосуществовать
**cold** [kould] *a* холодный; *n* простуда
**colitis** [kə'laɪtɪs] *n* колит
**collaborator** [kə'læbəreɪtə] *n* сотрудник
**colon** ['koulən] *n* толстая кишка
**combination** [ˌkɔmbɪ'neɪʃən] *n* сочетание
**combine** [kəm'baɪn] *v* объединять, смешивать
**common** ['kɔmən] *a* общий; обыкновенный, банальный
**compare** [kəm'pɛə] *v* сравнивать
**complain** [kəm'pleɪn] *v* жаловаться
**complaint** [kəm'pleɪnt] *n* жалоба
**complete** [kəm'pli:t] *a* законченный, полный; *v* закончить, завершить

**completion** [kəm'pli:ʃən] *n* завершение
**complex** ['kɔmpleks] *n* комплекс; *a* сложный
**complication** [ˌkɔmpli'keɪʃən] *n* осложнение
**component** [kəm'pounənt] *n* компонент
**compress** [kəm'pres] *v* сжимать
**concentrate** ['kɔnsentreɪt] *n* обогащенный продукт; *v* сконцентрировать
**concentration** [ˌkɔnsen'treɪʃn] *n* концентрация; сосредоточение
**concept** ['kɔnsept] *n* понятие, идея
**condition** [kən'dɪʃən] *n* условие; состояние
**conduct** ['kɔndəkt] *n* поведение; *v* [kən'dʌkt] вести, проводить
**confirm** [kən'fə:m] *v* подтверждать
**confusion** [kən'fju:ʒən] *n* путаница
**congenital** [kən'dʒenɪtl] *a* врожденный
**congestive** [kən'dʒestɪv] *a* застойный
**conjunction** [kən'dʒʌŋkʃən] *n* соединение, связь
**considerable** [kən'sɪdərəbl] *a* значительный, важный
**constipation** [ˌkɔnstɪ'peɪʃən] *n* запор
**consult** [kən'sʌlt] *v* консультировать(ся); обращаться за советом
**consumption** [kən'sʌmpʃən] *n* потребление
**contact** ['kɔntəkt] *a* контактный; *v* [kən'tækt] соприкасаться
**contain** [kən'teɪn] *v* содержать
**container** [kən'teɪnə] *n* сосуд, резервуар, приемник
**contamination** [kənˌtæmɪ'neɪʃən] *n* загрязнение
**continue** [kən'tɪnju:] *v* продолжать
**contraceptive** [ˌkɔntrə'septɪv] *a* противозачаточный; *n* противозачаточное средство
**contract** [kən'trækt] *v* сокращать(ся)
**contractility** [ˌkɔntræk'tɪlɪtɪ] *n* сокращаемость, сжимаемость
**contraindication** [ˌkɔntrəˌɪndɪ'keɪʃən] *n* противопоказание
**contributory** [kən'trɪbjutərɪ] *a* способствующий, делающий вклад
**control** [kən'troul] *n* контроль; *v* контролировать
**conventional** [kən'venʃənəl] *a* обычный
**cord** [kɔ:d] *n* связка
**corn** [kɔ:n] *n* зерно; мозоль
**cornea** ['kɔ:nɪə] *n* роговая оболочка глаза
**coronary** ['kɔrənərɪ] *a* коронарный
**correct** [kə'rekt] *a* правильный; *v* исправлять
**correction** [kə'rekʃən] *n* исправление
**coryza** [kə'raɪzə] *n* насморк
**cough** [kɔf] *n* кашель
**counterpart** ['kauntəpɑ:t] *n* двойник; что-л. дополняющее, дублирующее
**couple** ['kʌpl] *v* спаривать, объединять в пару
**course** [kɔ:s] *n* ход, течение (болезни)
**cramp** [kræmp] *n* спазм, судорога
**cranial** ['kreɪnjəl] *a* черепной
**create** [kri:'eɪt] *v* создавать
**crush** [krʌʃ] *v* дробить
**crust** [krʌst] *n* корка; *v* покрываться коркой
**crystalline** ['krɪstəlaɪn] *a* хрустальный
**cuff** [kʌf] *n* манжета, муфта
**culture** ['kʌltʃə] *n* культура

**cure** [kjuə] *n* вылечивание; *v* вылечить
**cut** [kʌt] *v* **(cut)** резать; *n* надрез
**cycle** ['saɪkl] *n* цикл

**D d**

**damage** ['dæmɪdʒ] *n* повреждение; *v* повредить
**date** [deɪt] *n* дата, число
**datum** ['deɪtəm] *n* (*pl* **data**) данная величина, характеристика
**deaf** [def] *a* глухой
**death** [deθ] *n* смерть
**debilitate** [dɪ'bɪlɪteɪt] *v* ослаблять
**debris** ['debri:] *n* осколки, мусор
**decrease** [di:'kri:s] *v* уменьшать(ся)
**deep** [di:p] *a* глубокий
**defecate** ['defɪkeɪt] *v* испражняться
**defecation** [ˌdefɪ'keɪʃən] *n* испражнение
**defect** [dɪ'fekt] *n* дефект, порок, повреждение
**deficiency** [dɪ'fɪʃənsɪ] *n* недостаток, отсутствие
**define** [dɪ'faɪn] *v* давать определение, характеристику; определять
**definite** ['defɪnɪt] *a* определенный
**degeneration** [dɪˌdʒenə'reɪʃən] *n* вырождение, перерождение
**degree** [dɪ'gri:] *n* степень; градус
**dehydration** [ˌdi:haɪ'dreɪʃən] *n* обезвоживание
**delay** [dɪ'leɪ] *n* отсрочка, промедление
**delineate** [dɪ'lɪnɪeɪt] *v* устанавливать очертания или размеры; изображать, описывать
**demand** [dɪ'mɑ:nd] *n* требование, запрос; *v* требовать, нуждаться
**demonstrate** ['demənstreɪt] *v* наглядно показывать, демонстрировать
**dental** ['dentl] *a* зубной
**depend (on)** [dɪ'pend] *v* зависеть (от)
**deposit** [dɪ'pɔzɪt] *n* отложение, осадок; *v* отлагать(ся), давать осадок
**depression** [dɪ'preʃən] *n* снижение, падение; уныние, депрессия
**dermatitis** [ˌdə:mə'taɪtɪs] *n* дерматит
**design** [dɪ'zaɪn] *n* замысел, проект; *v* предназначать, задумывать, проектировать
**desire** [dɪ'zaɪə] *n* сильное желание, намерение
**destroy** [dɪs'trɔɪ] *v* разрушать
**detect** [dɪ'tekt] *v* обнаружить, выявить
**determination** [dɪˌtə:mɪ'neɪʃən] *n* определение, установление
**determine** [dɪ'tə:mɪn] *v* определить, установить
**develop** [dɪ'veləp] *v* развивать(ся), совершенствовать(ся), разрабатывать
**device** [dɪ'vaɪs] *n* устройство, приспособление, механизм, прибор
**diabetes** [ˌdaɪə'bi:ti:z] *n* диабет
**diagnostic** [ˌdaɪəg'nɔstɪk] *a* диагностический
**diameter** [daɪ'æmɪtə] *n* диаметр
**diarrhea** [ˌdaɪə'rɪə] *n* понос
**diastolic** [daɪ'æstəlɪk] *a* диастолический
**die** [daɪ] *v* умирать
**diet** ['daɪət] *n* диета; пища
**dietary** ['daɪətərɪ] *a* диетический
**differ** ['dɪfə] *v* различать(ся), отличать(ся)
**different** ['dɪfrənt] *a* другой, непохожий, отличный
**differentiation** [ˌdɪfərənʃɪ'eɪʃən] *n* дифференциация, различение
**diffuse** [dɪ'fju:s] *a* рассеянный, разбросанный; *v* [dɪ'fu:z] рассеивать, распылять, разбрасывать

**diligent** ['dɪlɪdʒənt] *a* старательный
**diminish** [dɪ'mɪnɪʃ] *v* уменьшать(ся); ослаблять(ся)
**diphtheria** [dɪf'θɪərɪə] *n* дифтерия
**direct** [dɪ'rekt] *v* руководить, направлять; нацеливать(ся), указывать
**direction** [dɪ'rekʃən] *n* руководство, инструкция; направление
**disappear** [ˌdɪsə'pɪə] *v* исчезать
**discard** [dɪs'kɑ:d] *v* отбрасывать, выбрасывать; отказываться (от прежнего взгляда)
**disclose** [dɪs'klouz] *v* обнаруживать, раскрывать
**discomfort** [dɪs'kʌmfət] *n* неудобство
**discontinue** [ˌdɪskən'tɪnju] *v* прерывать
**discourage** [dɪs'kʌrɪdʒ] *v* расхолаживать, отговаривать
**discover** [dɪs'kʌvə] *v* обнаруживать, делать открытие
**disorder** [dɪs'ɔ:də] *n* беспорядок; расстройство, нарушение
**disposable** [dɪs'pouzəbl] *a* имеющийся в распоряжении, доступный
**dissect** [dɪ'sekt] *v* рассекать, вскрывать, анатомировать; анализировать
**dissolve** [dɪ'zɔlv] *v* растворять(ся); разжижать(ся)
**distal** ['dɪstəl] *a* периферический
**distance** ['dɪstəns] *n* расстояние, отдаленность
**distinguish** [dɪs'tɪŋgwɪʃ] *v* различить, разглядеть; характеризовать, отмечать
**distress** [dɪs'tres] *n* страдание, недомогание
**disturbance** [dɪs'tə:bəns] *n* нарушение, повреждение
**diuresis** [ˌdaɪjuə'ri:sɪs] *n* диурез
**diuretic** [ˌdaɪjuə'retɪk] *n* мочегонное средство
**divide** [dɪ'vaɪd] *v* делить(ся), подразделять
**dizziness** ['dɪzɪnɪs] *n* головокружение
**DNA (deoxyribonucleic acid)** *n* ДНК
**dosage** ['dousɪdʒ] *n* дозировка, доза
**douche** [du:ʃ] *v* промывать
**drain** [dreɪn] *n* дренаж; дренажная трубка; утечка; *v* дренировать, сушить
**drink** [drɪŋk] **(drank, drunk)** *v* пить
**drowsiness** ['drauzɪnɪs] *n* сонливость
**drug** [drʌg] *n* лекарственный препарат; наркотик
**dry** [draɪ] *a* сухой; *v* сушить
**due** [dju:] *a* обусловленный
**duodenal** [ˌdju:ou'di:nəl] *a* дуоденальный
**duodenum** [ˌdju:ou'di:nəm] *n* двенадцатиперстная кишка
**dust** [dʌst] *n* пыль
**dye** [daɪ] *n* краска, краситель, красящее вещество; контрастная жидкость
**dynamic** [daɪ'næmɪk] *a* динамичный, активный
**dyspeptic** [dɪs'peptɪk] *a* страдающий плохим пищеварением
**dysphagia** [dɪs'feɪdʒɪə] *n* дисфагия, нарушение глотания
**dyspnea** [dɪs'pni:ə] *n* одышка

## E e

**ear** [ɪə] *n* ухо
**eardrum** ['ɪədrʌm] *n* барабанная перепонка
**early** ['ə:lɪ] *a* ранний, преждевременный; *adv* рано
**eat** [i:t] **(ate, eaten)** *v* есть, питаться, кушать

**edema** [ɪ'di:mə] *n* отек
**edge** [edʒ] *n* край
**effect** [ɪ'fekt] *n* результат; воздействие; *v* оказывать воздействие
**effective** [ɪ'fektɪv] *a* эффективный
**elderly** ['eldəlɪ] *a* пожилой
**electrolyte** [ɪ'lektroulaɪt] *n* электролит
**electronic** [ɪlek'trɔnɪk] *a* электронный
**elevation** [ˌelɪ'veɪʃən] *n* поднятие, повышение
**elfin** ['elfɪn] *a* миниатюрный
**elixir** [ɪ'lɪksə] *n* эликсир
**embolism** ['embəlɪzəm] *n* эмболия
**emotional** [ɪ'mouʃənəl] *a* эмоциональный
**empty** ['emptɪ] *a* пустой; *v* освобождать (от содержимого)
**enable** [ɪ'neɪbl] *v* давать возможность
**encourage** [ɪn'kʌrɪdʒ] *v* одобрять, поддерживать
**encroach** [ɪn'kroutʃ] *v* вторгаться, покушаться на чужие права
**energetic** [ˌenə'dʒetɪk] *a* энергичный
**engorge** [ɪn'gɔ:dʒ] *v* наливаться кровью (об органе)
**enhance** [ɪn'hɑ:ns] *v* усилить
**enlarge** [ɪn'lɑ:dʒ] *v* увеличивать(ся), расширять(ся)
**ensure** [ɪn'ʃuə] *v* обеспечивать, гарантировать
**enter** ['entə] *v* входить, проникать; вступать
**enteritis** [ˌentə'raɪtɪs] *n* воспаление тонких кишок
**entire** [ɪn'taɪə] *a* полный, целый, сплошной, весь
**environment** [ɪn'vaɪərənmənt] *n* окружающая среда
**enzyme** ['enzaɪm] *n* энзим, фермент
**epigastrium** [ˌepɪ'gæstrɪəm] *n* надчревная область
**episode** ['epɪsoud] *n* эпизод
**epistaxis** [ˌepɪs'tæksɪs] *n* носовое кровотечение
**equal** ['i:kwəl] *a* равный
**ergotamine** [ə:'gɔtəmɪn] *n* эрготамин
**ergotism** ['ə:gətɪzəm] *n* отравление спорыньей
**error** ['erə] *n* ошибка
**erythema** [ˌerɪ'θi:mə] *n* эритема
**escape** [ɪs'keɪp] *n* бегство, избавление; *v* избежать, ускользнуть
**essential** [ɪ'senʃəl] *a* существенный; необходимый
**establish** [ɪs'tæblɪʃ] *v* основать, создать
**estimate** ['estɪmeɪt] *v* оценивать, подсчитывать приблизительно
**ethanol** ['eθənəl] *n* этиловый спирт
**etiology** [ˌi:tɪ'ɔlədʒɪ] *n* этиология
**evaluate** [ɪ'væljueɪt] *v* оценивать, определять количество
**evaluation** [ɪˌvælju'eɪʃən] *n* оценка, определение количества
**eventual** [ɪ'ventjuəl] *a* возможный, могущий случиться
**exact** [ɪg'zækt] *a* точный
**examine** [ɪg'zæmɪn] *v* рассматривать, исследовать; осматривать больного
**exceed** [ɪk'si:d] *v* превышать, превосходить
**excess** [ɪk'ses] *n* избыток
**excessive** [ɪk'sesɪv] *a* чрезмерный
**excision** [ək'sɪʒən] *n* вырезание, отрезание
**exclude** [ɪks'klu:d] *v* исключить
**excruciate** [ɪks'kru:ʃɪeɪt] *v* мучить, терзать
**exertion** [ɪg'zə:ʃən] *n* напряжение, усилие

**exhibit** [ɪg'zɪbɪt] *n* экспонат; *v* показывать, проявлять
**expand** [ɪks'pænd] *v* расширять(ся)
**expensive** [ɪks'pensɪv] *a* дорогостоящий, дорогой
**experience** [ɪks'pɪərɪəns] *v* знать по опыту, испытывать
**experiment** [ɪks'perɪmənt] *n* опыт, эксперимент
**expiration** [ˌekspaɪə'reɪʃən] *n* выдох
**explain** [ɪks'pleɪn] *v* объяснить
**expose** [ɪks'pouz] *v* подвергать (воздействию)
**exposure** [ɪks'pouʒə] *n* подвергание (воздействию)
**extend** [ɪks'tend] *v* простирать(ся), тянуть(ся), распространять (-ся)
**extensive** [ɪks'tensɪv] *a* обширный, пространный
**extent** [ɪks'tent] *n* протяжение; степень
**external** [ɪks'tə:nl] *a* наружный
**exudate** ['eksju:deɪt] *n* выделение, экс̀удат
**eye** [aɪ] *n* глаз
**eyeball** ['aɪbɔ:l] *n* глазное яблоко
**eyebrow** ['aɪbrau] *n* бровь

## F f

**fail** [feɪl] *v* потерпеть неудачу
**failure** ['feɪljə] *n* неудача, неудачник
**faint** [feɪnt] *a* слабый, тусклый
**fairly** ['feəlɪ] *adv* совершенно, довольно; сносно
**farsightedness** ['fɑ:'saɪtɪdnɪs] *n* дальнозоркость
**fast** [fɑ:st] *a* скорый, быстрый
**fat** [fæt] *n* жир; *a* жирный
**fatigue** [fə'ti:g] *n* усталость
**fatty** ['fætɪ] *a* жирный
**feature** ['fi:tʃə] *n* черта характера, лица; особенность
**febrile** ['fi:braɪl] *a* лихорадочный
**feel** [fi:l] **(felt)** *v* чувствовать, ощущать; чувствовать себя
**fertility** [fə:'tɪlɪtɪ] *n* фертильность
**fever** ['fi:və] *n* жар
**fibre (fiber)** ['faɪbə] *n* волокно
**fibrosis** [faɪ'brousɪs] *n* фиброз
**fibula** ['fɪbjulə] *n* (*pl* **fibulae**) малоберцовая кость
**field** [fi:ld] *n* поле; область (деятельности)
**fill** [fɪl] *v* наполнять(ся), заполнять
**filter** ['fɪltə] *v* фильтровать
**find** [faɪnd] **(found)** *v* найти
**finger** ['fɪŋgə] *n* палец
**firm** [fə:m] *a* крепкий, твердый
**fix** [fɪks] *v* укреплять
**flank** [flæŋk] *n* бок
**flatulence** ['flætjuləns] *n* скопление газов, метеоризм
**flavour** ['fleɪvə] *n* приятный вкус, аромат
**flow** [flou] *n* ток, течение; *v* течь
**fluid** ['flu:ɪd] *n* жидкая среда, жидкость
**flush** [flʌʃ] *n* покраснение; *v* покраснеть
**focal** ['foukəl] *a* фокусный, центральный
**focus** ['foukəs] *v* собираться в фокусе; *n* фокус
**force** [fɔ:s] *n* сила; *v* заставлять, принуждать
**form** [fɔ:m] *n* форма; *v* формировать
**foreshadow** [fɔ:'ʃædou] *v* предзнаменовать, предвещать
**formation** [fɔ:'meɪʃən] *n* формирование, образование (чего-л.)
**foul** [faul] *a* грязный, гнойный, плохо пахнущий
**fragile** ['frædʒaɪl] *a* хрупкий
**frame** [freɪm] *n* рама; оправа (очков)

**frequent** ['fri:kwənt] *a* частый, часто встречающийся
**fresh** [freʃ] *a* свежий, новый
**fume** [fju:m] *n* дым, испарение
**function** ['fʌŋkʃən] *n* функция; *v* функционировать
**fungus** ['fʌŋgəs] *n* (*pl* **fungi**) грибок
**further** ['fə:ðə] *adv* дальше; *v* продвигать

## G g

**gain** [geɪn] *n* увеличение, прирост, рост; *v* приобретать
**gallbladder** ['gɔ:l,blædə] *n* желчный пузырь
**gallstone** ['gɔ:lstoun] *n* желчный камень
**gargle** ['gɑ:gl] *n* полоскание (для горла); *v* полоскать (горло)
**gasoline** ['gæsəli:n] *n* бензин
**gastritis** [gæs'traɪtɪs] *n* гастрит
**gastroenterology** [,gæstrou,entə'rɔlədʒɪ] *n* гастроэнтерология
**gene** [dʒi:n] *n* ген
**general** ['dʒenərəl] *a* общего характера, всеобщий
**generalize** ['dʒenərəlaɪz] *v* обобщать
**generic** [dʒɪ'nerɪk] *a* общий
**genetic** [dʒɪ'netɪk] *a* генетический
**genitalia** [,dʒenɪ'teɪlɪə] *n* гениталии
**gently** ['dʒentlɪ] *adv* мягко, нежно, осторожно
**glasses** ['glɑ:sɪz] *n pl* очки
**glaucoma** [glɔ:'koumə] *n* глаукома
**glossitis** [glɔ'saɪtɪs] *n* воспаление языка
**glycogen** ['glaɪkoudʒən] *n* гликоген, животный крахмал
**gradual** ['grædjuəl] *a* постепенный, последовательный
**graft** [grɑ:ft] *n* пересадка (органа, ткани); *v* пересаживать
**gross** [grous] *a* грубый; крупный
**grow** [grou] **(grew, grown)** *v* расти
**growth** [grouθ] *n* рост, развитие
**gum** [gʌm] *n* десна
**gynecological** [,gaɪnɪkə'lɔdʒɪkəl] *a* гинекологический

## H h

**habit** ['hæbɪt] *n* привычка
**haemorrhage** ['heməɪdʒ] *n* кровотечение, кровоизлияние
**hair** [hɛə] *n* волосы
**half** [hɑ:f] *n* половина
**hallucination** [hə,lu:sɪ'neɪʃən] *n* галлюцинация
**harmful** ['hɑ:mful] *a* вредный
**headache** ['hedeɪk] *n* головная боль
**headband** ['hedbænd] *n* повязка на голове
**heal** [hi:l] *v* излечивать; заживать, заживлять
**health** [helθ] *n* здоровье
**hear** [hɪə] **(heard)** *v* слышать
**heart** [hɑ:t] *n* сердце
**heartbeat** ['hɑ:tbi:t] *n* пульсация сердца
**heat** [hi:t] *n* жара, жар; теплота
**height** [haɪt] *n* высота
**hepatic** [hɪ'pætɪk] *a* печеночный
**hepatitis** [,hepə'taɪtɪs] *n* гепатит
**hereditary** [hɪ'redɪtərɪ] *a* наследственный
**heredity** [hɪ'redɪtɪ] *n* наследственность
**high** [haɪ] *a* высокий
**hoarseness** ['hɔ:snɪs] *n* охриплость
**hope** [houp] *n* надежда; *v* надеяться
**hopeful** ['houpful] *a* многообещающий
**hormone** ['hɔ:moun] *n* гормон
**human** ['hju:mən] *a* свойственный человеку
**humor** ['hju:mə] *n* тканевая жидкость

**humoral** ['hju:mərəl] *a* гуморальный
**hunger** ['hʌŋgə] *n* голод
**hypertension** [ˌhaɪpə'tenʃən] *n* гипертония
**hyperthyroidism** [ˌhaɪpə'θaɪrɔɪdɪzm] *n* гипертиреоз
**hypothalamus** [ˌhaɪpou'θæləməs] *n* гипоталамус

## I i

**identify** [aɪ'dentɪfaɪ] *v* устанавливать, опознавать
**idiosyncratic** [ˌɪdɪəsɪŋ'krætɪk] *a* идиосинкратический
**ill** [ɪl] *a* больной
**illness** ['ɪlnɪs] *n* болезнь
**imbalance** [ɪm'bælәns] *n* отсутствие равновесия, соответствия
**immediate** [ɪ'mi:djət] *a* немедленный, безотлагательный; ближайший
**immediately** [ɪ'mi:djətlɪ] *adv* немедленно; непосредственно
**impact** ['ɪmpækt] *n* удар, толчок; воздействие; *v* [ɪm'pækt] ударять, воздействовать
**impair** [ɪm'pɛə] *v* портить, повреждать
**impede** [ɪm'pi:d] *v* препятствовать, задерживать
**implicate** ['ɪmplɪkeɪt] *v* вовлекать, впутывать; заключать в себе; подразумевать
**important** [ɪm'pɔ:tənt] *a* важный, значительный
**impose** [ɪm'pouz] *v* налагать (обязательства), навязывать
**impotence** ['ɪmpətәns] *n* импотенция
**improve** [ɪm'pru:v] *v* улучшать(ся)
**improvement** [ɪm'pru:vmənt] *n* улучшение
**impulse** ['ɪmpʌls] *n* толчок, побуждение
**inactive** [ɪn'æktɪv] *a* инертный, недействующий
**incidence** ['ɪnsɪdәns] *n* сфера действия
**incision** [ɪn'sɪʒәn] *n* разрез
**include** [ɪn'klu:d] *v* включать (в состав, в себя)
**increase** ['ɪnkri:s] *n* увеличение, рост; *v* [ɪn'kri:s] возрастать, увеличивать(ся)
**incriminate** [ɪn'krɪmɪneɪt] *v* обвинять (в преступлении)
**indicate** ['ɪndɪkeɪt] *v* показывать, указывать; назначать (лечение)
**indication** [ˌɪndɪ'keɪʃən] *n* указание, показание; назначение
**indigestion** [ˌɪndɪ'dʒestʃən] *n* несварение, диспепсия
**individual** [ˌɪndɪ'vɪdjuəl] *a* личный, индивидуальный
**infant** ['ɪnfənt] *n* младенец; *a* детский, инфантильный
**infarction** [ɪn'fɑ:kʃən] *n* инфаркт
**infect** [ɪn'fekt] *v* заражать, инфицировать
**infection** [ɪn'fekʃən] *n* инфекция
**infectious** [ɪn'fekʃəs] *a* инфекционный
**infiltrate** ['ɪnfɪltreɪt] *n* инфильтрат; *v* пропускать жидкость через фильтр
**inflammation** [ˌɪnflə'meɪʃən] *n* воспаление
**inflammatory** [ɪn'flæmətərɪ] *a* воспалительный
**influence** ['ɪnfluəns] *n* влияние
**ingestion** [ɪn'dʒestʃən] *n* глотание
**ingredient** [ɪn'gri:djənt] *n* ингредиент
**inhalation** [ˌɪnhə'leɪʃən] *n* ингаляция, вдыхание
**inhibition** [ˌɪnhɪ'bɪʃən] *n* задержка; подавление
**initial** [ɪ'nɪʃəl] *a* первоначальный

**initially** [ɪ'nɪʃəlɪ] *adv* вначале, первоначально
**inject** [ɪn'dʒekt] *v* делать инъекцию, впрыскивать
**inner** ['ɪnə] *a* внутренний
**insensitivity** [ɪn,sensɪ'tɪvɪtɪ] *n* нечувствительность
**insert** [ɪn'sə:t] *v* вставлять, вводить
**inside** [ɪn'saɪd] *n* внутренняя сторона; *a* внутренний; *adv* внутри
**insidious** [ɪn'sɪdɪəs] *a* незаметно подкрадывающийся
**insomnia** [ɪn'sɔmnɪə] *n* бессонница
**inspection** [ɪn'spekʃən] *n* осмотр
**instability** [,ɪnstə'bɪlɪtɪ] *n* неустойчивость, непостоянство
**insufficiency** [,ɪnsə'fɪʃənsɪ] *n* недостаточность
**insufficient** [,ɪnsə'fɪʃənt] *a* недостаточный
**insulin** ['ɪnsjulɪn] *n* инсулин
**intense** [ɪn'tens] *a* сильный, интенсивный
**intensive** [ɪn'tensɪv] *a* интенсивный, напряженный
**interaction** [,ɪntə'rækʃən] *n* взаимодействие
**interfere** [,ɪntə'fɪə] *v* вмешиваться
**intermittent** [,ɪntə'mɪtənt] *a* прерывистый
**internal** [ɪn'tə:nəl] *a* внутренний
**interval** ['ɪntəvəl] *n* промежуток, интервал
**intestinal** [ɪn'testɪnl] *a* кишечный
**intima** ['ɪntɪmə] *n* интима, внутренняя оболочка (кровеносных сосудов)
**intolerance** [ɪn'tɔlərəns] *n* нетерпимость; отсутствие толерантности
**intraligamentous** [,ɪntrəlɪgə'mentəs] *a* внутрисвязочный
**intraperitonial** [,ɪntrəperɪ'tənɪəl] *a* внутрибрюшинный
**introduce** [,ɪntrə'dju:s] *v* вводить, вставлять
**invaluable** [ɪn'væljuəbl] *a* неоценимый, бесценный
**invasion** [ɪn'veɪʒən] *n* инвазия
**invasive** [ɪn'veɪsɪv] *a* инвазивный
**involve** [ɪn'vɔlv] *v* вовлекать, охватывать
**iodine** ['aɪədi:n] *n* йод
**irradiate** [ɪ'reɪdɪeɪt] *v* иррадиировать; облучать
**irregular** [ɪ'regjulə] *a* неправильный, неровный
**irritant** ['ɪrɪtənt] *n* раздражающее средство
**irritative** ['ɪrɪtətɪv] *a* раздражающий
**ischemia** [ɪs'ki:mɪə] *n* ишемия
**isolate** ['aɪsəleɪt] *v* изолировать; выделять
**itch** [ɪtʃ] *n* зуд; *v* зудеть

## J j

**jaw** [dʒɔ:] *n* челюсть
**joint** [dʒɔɪnt] *n* место соединения; связка
**journal** ['dʒə:nl] *n* журнал

## K k

**keep** [ki:p] **(kept)** *v* держать, хранить
**kidney** ['kɪdnɪ] *n* почка
**kind** [kaɪnd] *n* разновидность

## L l

**lactation** [læk'teɪʃən] *n* лактация
**lag** [læg] *v* задерживать (движение)
**large** [lɑ:dʒ] *a* большой, крупный
**laryngitis** [,lærɪŋ'dʒaɪtɪs] *n* ларингит
**laryngoscope** [lə'rɪŋgəskoup] *n* ларингоскоп
**larynx** ['lærɪŋks] *n* гортань, глотка
**laser** ['leɪzə] *n* лазер

**last** [lɑ:st] *a* последний, прошлый; *v* длиться, продолжаться
**latter** ['lætə] *a* последний из ряда предметов, явлений
**layer** ['laıə] *n* слой
**lead** [li:d] **(led)** *v* вести, руководить, приводить (к)
**left** [left] *a* левый
**leg** [leg] *n* нога
**lens** [lenz] *n* линза; хрусталик глаза
**lesion** ['li:ʒən] *n* поражение, повреждение
**lessen** ['lesn] *v* уменьшать(ся)
**leukocyte** ['lju:kəsaıt] *n* лейкоцит
**level** ['levl] *n* уровень
**lid** [lıd] *n* веко
**lidocaine** ['lıdoukeın] *n* лидокаин
**light** [laıt] *n* свет; *a* светлый; легкий
**limit** ['lımıt] *v* ограничивать
**line** [laın] *n* линия; *v* располагать в ряд
**lining** ['laınıŋ] *n* внутренний слой
**link** [lıŋk] *n* соединение; связь
**lip** [lıp] *n* губа
**lipid** ['lıpıd] *n* липид
**liquid** ['lıkwıd] *a* жидкий; *n* жидкость
**litter** ['lıtə] *v* подстилать; разбрасывать
**liver** ['lıvə] *n* печень
**lobe** [loub] *n* доля; мочка уха
**local** ['loukəl] *a* местный, локальный
**location** [lou'keıʃən] *n* местоположение
**lodge** [lɔdʒ] *v* застрять, обосноваться
**loop** [lu:p] *n* петля
**loose** [lu:s] *a* свободный, несвязанный
**lose** [lu:z] **(lost)** *v* терять
**loss** [lɔs] *n* потеря
**lotion** ['louʃən] *n* примочка; лосьон
**low** [lou] *a* низкий
**lower** ['louə] *v* снижать
**lozenge** ['lɔzındʒ] *n* ромб, лепешка, таблетка
**lumen** ['lu:mən] *n* просвет
**lung** [lʌŋ] *n* легкое (*анатом.*)
**lymphoma** [lım'foumə] *n* лимфома
**lymphosarcoma** [ˌlımfousɑ:'koumə] *n* лимфосаркома

## M m

**magnification** [ˌmægnıfı'keıʃən] *n* увеличение, усиление
**maintain** [men'teın] *v* поддерживать, сохранять
**maintenance** ['meıntınəns] *n* поддержка, сохранение
**major** ['meıdʒə] *a* более важный, главный
**majority** [mə'dʒɔrıtı] *n* большинство
**malaise** [mæ'leız] *n* недомогание
**malnourish** [ˌmæl'nʌrıʃ] *v* плохо кормить
**manage** ['mænıdʒ] *v* управлять, вести; владеть, уметь обращаться
**management** ['mænıdʒmənt] *n* управление; умение справляться (с работой); ведение больного
**manifest** ['mænıfest] *v* обнаруживаться, проявляться
**manifestation** [ˌmænıfə'steıʃn] *n* проявление
**manufacture** [ˌmænju'fæktʃə] *n* производство; *v* производить
**manufacturer** [ˌmænju'fæktʃərə] *n* изготовитель
**margin** ['mɑ:dʒın] *n* поле (страницы), край
**markedly** ['mɑ:kıdlı] *adv* заметно
**mass** [mæs] *n* масса

**match** [mætʃ] *v* сочетать, подходить (под пару), соответствовать
**meal** [mi:l] *n* принятие пищи; еда
**measure** ['meʒə] *n* мера, мероприятие; *v* измерять
**meatus** [mi:'eɪtəs] *n* канал, проход
**mechanism** ['mekənɪzəm] *n* механизм, устройство
**medical** ['medɪkəl] *a* медицинский, врачебный
**medication** [ˌmedɪ'keɪʃən] *n* лечение
**medicine** ['medsɪn] *n* медицина; лекарство
**medium** ['mi:djəm] *n* (*pl* **media**) среда
**megacolon** [ˌmegə'koulən] *n* мегаколон (расширение ободочной кишки)
**melt** [melt] *v* таять, плавиться
**membrane** ['membreɪn] *n* оболочка, перепонка, пленка
**memory** ['meməɪ] *n* память
**menarche** [mə'nɑ:ki:] *n* менархе, первая менструация
**mend** [mend] *v* исправлять; поправлять(ся)
**menstruation** [ˌmenstru'eɪʃən] *n* менструация
**mental** ['mentl] *a* умственный, психический
**mention** ['menʃən] *n* упоминание, ссылка (на); *v* упоминать
**mercury** ['mə:kjurɪ] *n* ртуть
**microbe** ['maɪkroub] *n* микроб
**middle** ['mɪdl] *a* средний; *n* середина
**migraine** ['mi:greɪn] *n* мигрень
**mimic** ['mɪmɪk] *v* имитировать
**mineral** ['mɪnərəl] *n* минерал
**miniature** ['mɪnjətʃə] *a* миниатюрный
**minor** ['maɪnə] *a* незначительный; второстепенный
**miss** [mɪs] *v* упустить, пропустить
**mixture** ['mɪkstʃə] *n* микстура; смесь
**modality** [mou'dælɪtɪ] *n* способ воздействия; вид ощущений
**mode** [moud] *n* метод, способ, образ действия
**moderate** ['mɔdərɪt] *a* умеренный
**molecule** ['mɔlɪkju:l] *n* молекула
**monitor** ['mɔnɪtə] *n* наставник; *v* руководить; выявлять наличие
**monohydrate** ['mɔnə'haɪdreɪt] *n* моногидрат
**mortality** [mɔ:'tælɪtɪ] *n* смертность
**motility** ['moutɪlɪtɪ] *n* способность передвигаться
**motion** ['mouʃən] *n* движение
**mouse** [maus] *n* (*pl* **mice** [maɪs]) мышь
**mouth** [mauθ] *n* рот; ротовая полость
**mucoid** ['mju:kɔɪd] *a* слизеподобный
**mucosa** [mju:'kousə] *n* слизистая оболочка
**mucous** ['mju:kəs] *a* слизистый
**mucus** ['mju:kəs] *n* слизь
**multivitamin** ['mʌltɪ'vɪtəmɪn] *n* поливитамин
**muscle** ['mʌsl] *n* мускул, мышца
**myxedema** [ˌmɪksɪ'di:mə] *n* микседема

## N n

**nasopharynx** [ˌneɪzou'færɪŋks] *n* носоглотка
**natural** ['nætʃərəl] *a* естественный, природный
**nature** ['neɪtʃə] *n* природа; естество, натура
**nausea** ['nɔ:sjə] *n* тошнота
**nearsightedness** ['nɪə'saɪtɪdnɪs] *n* близорукость
**neck** [nek] *n* шея

**neoplasm** ['ni:əplæzm] *n* новообразование
**neurogenic** [ˌnju:rou'dʒenɪk] *a* нейрогенный
**neuropathy** [ˌnju:rou'pæθɪ] *n* нейропатия
**neutralize** ['nju:trəlaɪz] *v* нейтрализовать, уничтожить
**nodule** ['nɔdju:l] *n* узелковое утолщение
**note** [nout] *n* заметка; *v* замечать; упоминать; обозначать
**notice** ['noutɪs] *v* замечать, обращать внимание; отмечать, упоминать
**nourish** ['nʌrɪʃ] *v* кормить
**novelty** ['nɔvəltɪ] *n* новинка, новшество
**nozzle** ['nɔzl] *n* насадка, наконечник, носик

## O o

**obesity** [ou'bi:sɪtɪ] *n* ожирение
**obstruction** [əb'strʌkʃən] *n* преграждение прохода
**obtain** [əb'teɪn] *v* получать, приобретать
**occasional** [ə'keɪʒənl] *a* случающийся время от времени, случайный, редкий
**occlude** [ə'klu:d] *v* преграждать, закрывать проход; закупоривать
**occlusion** [ə'klu:ʒən] *n* прегражде-ние
**occlusive** [ə'klu:sɪv] *a* преграждающий
**occur** [ə'kə:] *v* встречаться, попадаться; случаться, происходить
**ocular** ['ɔkjulə] *a* глазной
**odor (= odour)** ['oudə] *n* запах, аромат
**offend** [ə'fend] *v* обижать; совершать проступок; нарушать
**ointment** ['ɔɪntmənt] *n* мазь
**omit** [ou'mɪt] *v* опускать, пропускать, не включать
**only** ['ounlɪ] *a* единственный; *adv* только
**onset** ['ɔnsət] *n* начало (заболевания)
**opacity** [ou'pæsɪtɪ] *n* непрозрачность
**operation** [ˌɔpə'reɪʃən] *n* операция
**optical** ['ɔptɪkəl] *a* зрительный, оптический
**optimal** ['ɔptɪməl] *a* оптимальный
**oral** ['ɔ:rəl] *a* оральный
**ordinary** ['ɔ:dnrɪ] *a* обычный, обыкновенный
**organic** [ɔ:'gænɪk] *a* органический
**organism** ['ɔ:gənɪzəm] *n* организм
**origin** ['ɔrɪdʒɪn] *n* происхождение, источник
**original** [ə'rɪdʒənl] *a* подлинный
**osteoarthritis** [ˌɔstɪ:ouɑ:θ'raɪtɪs] *n* остеоартрит
**osteomyelitis** ['ɔstɪouˌmaɪə'laɪtɪs] *n* остеомиелит
**otitis** [ou'taɪtɪs] *n* отит
**outer** ['autə] *a* наружный
**outflow** ['autflou] *n* истечение, выход; *v* вытекать
**output** ['autput] *n* выпуск, выработка
**overcome** [ˌouvə'kʌm] **(overcame, overcome)** *v* преодолевать
**overweight** ['ouvəweɪt] *n* избыточный вес
**ovulation** [ˌɔvju:'leɪʃən] *n* овуляция
**oxygenation** [ˌɔksɪdʒə'neɪʃən] *n* оксигенация
**oz. (ounce)** [auns] *n* унция (=28,3 г)

## P p

**pace** [peɪs] *n* походка; темп; *v* шагать; задавать темп, вести
**pain** [peɪn] *n* боль

**painful** ['peɪnful] *a* причиняющий боль, болезненный
**paint** [peɪnt] *n* краска; *v* красить, окрашивать
**palate** ['pælɪt] *n* нёбо
**palatine** ['pælətaɪn] *a* нёбный
**palliative** ['pælɪətɪv] *n* паллиативное средство (временно облегчающее)
**palpable** ['pælpəbl] *a* пальпируемый, ощутимый
**palpitation** [ˌpælpɪ'teɪʃən] *n* сердцебиение
**pancreatitis** [ˌpæŋkrɪə'taɪtɪs] *n* панкреатит
**paramedics** [ˌpærə'medɪks] *n pl* младший медицинский персонал
**parauterine** [ˌpærə'ju:tərɪ:n] *a* околоматочный
**paroxysm** ['pærəksɪzəm] *n* пароксизм, приступ
**paroxysmal** [ˌpærək'sɪzməl] *a* появляющийся пароксизмами
**pass** [pɑ:s] *v* двигаться вперед; проходить; выводить, пропускать через
**passage** ['pæsɪdʒ] *n* прохождение, проход
**pathology** [pə'θɔlədʒɪ] *n* патология
**patient** ['peɪʃənt] *n* пациент
**pattern** ['pætən] *n* образец, модель
**peak** [pi:k] *n* высшая точка, максимум
**pelvic** ['pelvɪk] *a* тазовый
**peptic** ['peptɪk] *a* пищеварительный, пептический
**periarticular** [ˌperɪɑ:'tɪkju:lə] *a* вокругсуставный
**period** ['pɪərɪəd] *n* период, цикл
**peripheral** [pə'rɪfərəl] *a* периферийный
**permit** [pə'mɪt] *v* позволять, допускать
**persist** [pə'sɪst] *v* упорно продолжать
**person** ['pə:sn] *n* человек, личность
**pharyngitis** [ˌfærɪn'dʒaɪtɪs] *n* фарингит
**pharynx** ['færɪŋks] *n* глотка
**phase** [feɪz] *n* фаза, стадия
**phenobarbital** [ˌfi:nou'bɑ:bɪtəl] *n* фенобарбитал
**phenol** ['fi:nəl] *n* фенол, карболовая кислота
**phosphate** ['fɔsfeɪt] *n* фосфат
**photography** [fə'tɔgrəfɪ] *n* фотографирование
**physical** ['fɪzɪkəl] *a* физический
**physicist** ['fɪzɪsɪst] *n* физик
**physiologic** [ˌfɪzɪə'lɔdʒɪk] *a* физиологический
**physiology** [ˌfɪzɪ'ɔlədʒɪ] *n* физиология
**pinpoint** ['pɪnpɔɪnt] *a* что-то очень маленькое; *v* точно определить
**pituitary** [pɪ'tju:ɪtərɪ] *a* слизистый
**plaque** [plɑ:k] *n* бляшка
**plasminogen** [plæz'mɪnoudʒən] *n* плазминоген
**pneumonia** [nju:'mounjə] *n* пневмония
**pneumonitis** [ˌnju:mɔ'naɪtɪs] *n* пневмонит
**point** [pɔɪnt] *n* точка, момент; вопрос, пункт
**poison** ['pɔɪzn] *n* яд; *v* отравлять
**pollute** [pə'lu:t] *v* загрязнять
**polyp** ['pɔlɪp] *n* полип
**polyvinyl** [ˌpɔlɪ'vaɪnɪl] *n* поливинил
**population** [ˌpɔpju'leɪʃən] *n* население, популяция
**potassium** [pə'tæsjəm] *n* калий
**powder** ['paudə] *n* порошок
**precaution** [prɪ'kɔ:ʃən] *n* предостережение; предосторожность
**precede** [pri:'si:d] *v* предшествовать

**precipitate** [prɪ'sɪpɪteɪt] *v* осаждать(ся), выпадать в осадок
**precordial** [pri:'kɔ:dɪəl] *a* предсердечный
**predilection** [ˌpri:dɪ'lekʃən] *n* склонность, пристрастие
**predispose** ['pri:dɪs'pouz] *v* предрасполагать
**predisposition** ['pri:ˌdɪspə'zɪʃən] *n* предрасположение, склонность
**predominant** [prɪ'dɔmɪnənt] *a* преобладающий
**pregnancy** ['pregnənsɪ] *n* беременность
**preliminary** [prɪ'lɪmɪnərɪ] *a* предварительный
**presence** ['prezns] *n* присутствие, наличие
**present** ['preznt] *a* имеющийся в наличии, присутствующий; теперешний
**preservative** [prɪ'zə:vətɪv] *n* консервант
**press** [pres] *v* давить, сжимать
**pressure** ['preʃə] *n* давление
**prevalent** ['prevələnt] *a* преобладающий
**prevent** [prɪ'vent] *v* предупреждать, предотвращать
**previous** ['pri:vjəs] *a* предыдущий, предшествующий
**primary** ['praɪmərɪ] *a* первичный
**principle** ['prɪnsəpl] *n* принцип, правило
**procedure** [prə'si:dʒə] *n* процедура; процесс
**proceed** [prə'si:d] *v* продолжать; происходить, исходить из
**process** ['prouses] *n* процесс
**proctitis** [ˌprɔk'taɪtɪs] *n* проктит
**produce** [prə'dju:s] *v* вырабатывать; создавать, давать
**product** ['prɔdʌkt] *n* продукт, продукция
**productive** [prə'dʌktɪv] *a* продуктивный, плодовитый
**prognosis** [prɔg'nousɪs] *n* прогноз
**progress** ['prougrəs] *n* прогресс, развитие
**progressive** [prə'gresɪv] *a* прогрессивный
**prolong** [prə'lɔŋ] *v* продлевать, продолжать
**prominent** ['prɔmɪnənt] *a* выдающийся; выпуклый
**prompt** [prɔmt] *a* проворный, быстрый; *v* подсказывать, побуждать
**proper** ['prɔpə] *a* надлежащий, подходящий
**properly** ['prɔpəlɪ] *adv* должным образом, как следует
**prophylaxis** [ˌprɔfɪ'læksɪs] *n* профилактика
**propranol** [prou'prænəl] *n* пропранол
**prosthesis** ['prɔsθɪsɪs] *n* (*pl* **prostheses**) протез
**protein** ['prouti:n] *n* белок
**provide** [prə'vaɪd] *v* снабжать, обеспечивать
**psychologic(al)** [ˌsaɪkə'lɔdʒɪk(əl)] *a* психологический
**publish** ['pʌblɪʃ] *v* публиковать
**pulmonary** ['pʌlmənərɪ] *a* легочный
**pulse** [pʌls] *n* пульс
**pupil** ['pju:pl] *n* зрачок
**purulent** ['pjuərulənt] *a* гнойный
**pus** [pʌs] *n* гной
**pyogenic** [ˌpaɪou'dʒənɪk] *a* пиогенный

## Q q

**quadrant** ['kwɔdrənt] *n* четверть; сектор, составляющий четвертую часть поверхности
**quick** [kwɪk] *a* быстрый

**quiet** ['kwaɪət] *a* спокойный
**quite** [kwaɪt] *adv* вполне, совсем

**R r**

**radiate** ['reɪdɪeɪt] *v* излучать
**raise** [reɪz] *v* поднимать
**rale** [rɑ:l] *n* хрип(ы)
**range** [reɪndʒ] *n* ряд, сфера, область; *v* выстраиваться в ряд; колебаться в пределах
**rapid** ['ræpɪd] *a* быстрый, скорый
**rare** [rɛə] *a* редкий
**rash** [ræʃ] *n* сыпь
**rate** [reɪt] *n* темп; степень; *v* оценивать, определять категорию
**ratio** ['reɪʃɪou] *n* соотношение (количественное)
**reach** [ri:tʃ] *v* достигать
**react** [ri:'ækt] *v* реагировать
**reaction** [ri:'ækʃən] *n* реакция
**reactivity** [ˌri:æk'tɪvɪtɪ] *n* реактивность
**reagent** [ri:'eɪdʒənt] *n* реактив, реагент
**reasonable** ['ri:znəbl] *a* умеренный, приемлемый
**recently** ['ri:sntlɪ] *adv* недавно, на днях
**receptor** [ri:'septə] *n* рецептор
**recognition** [ˌrekəg'nɪʃən] *n* признание; опознание
**recommend** [ˌrekə'mend] *v* рекомендовать
**record** [rɪ'kɔ:d] *v* записывать, регистрировать
**recovery** [rɪ'kʌvərɪ] *n* выздоровление
**rectal** ['rektəl] *a* ректальный
**rectum** ['rektəm] *n* (*pl* **recta**) прямая кишка
**recur** [rɪ'kə:] *v* повторяться; возвращаться
**recurrent** [rɪ'kʌrənt] *a* возвратный, рецидивный
**reduce** [rɪ'dju:s] *v* понижать, ослаблять
**reduction** [rɪ'dʌkʃən] *n* снижение, уменьшение
**refer** [rɪ'fə:] *v* ссылаться (на); иметь отношение (к)
**regain** [rɪ'geɪn] *v* получить обратно
**regardless** [rɪ'gɑ:dlɪs] *prep* невзирая на
**region** ['ri:dʒən] *n* область, сфера
**regular** ['regjulə] *a* правильный, регулярный
**regularity** [ˌregju'lærɪtɪ] *n* правильность, регулярность
**rehabilitation** ['ri:əˌbɪlɪ'teɪʃən] *n* реабилитация
**reject** [rɪ'dʒekt] *v* отвергать, отказывать
**relate** [rɪ'leɪt] *v* относиться, иметь отношение к
**relationship** [rɪ'leɪʃənʃɪp] *n* родство, взаимосвязь
**relative** ['relətɪv] *a* относительный
**relief** [rɪ'li:f] *n* облегчение
**relieve** [rɪ'li:v] *v* облегчить
**remain** [rɪ'meɪn] *v* оставаться
**removal** [rɪ'mu:vəl] *n* устранение, удаление
**remove** [rɪ'mu:v] *v* удалить
**renal** ['ri:nəl] *a* почечный
**repeat** [rɪ'pi:t] *v* повторить
**replace** [rɪ'pleɪs] *v* вернуть на место; заменить
**replacement** [rɪ'pleɪsmənt] *n* замена
**report** [rɪ'pɔ:t] *n* отчет, сообщение; *v* сообщать, докладывать
**represent** [ˌreprɪ'zent] *v* представлять, олицетворять
**require** [rɪ'kwaɪə] *v* требовать, нуждаться
**research** [rɪ'sə:tʃ] *n* исследование; *v* исследовать
**researcher** [rɪ'sə:tʃə] *n* исследователь

**reserve** [rɪ'zə:v] *n* запас; *v* откладывать, запасать
**respiration** [ˌrespə'reɪʃən] *n* дыхание
**respond** [rɪs'pɔnd] *v* реагировать, отзываться
**response** [rɪs'pɔns] *n* реакция
**responsible** [rɪs'pɔnsəbl] *a* ответственный
**responsive** [rɪs'pɔnsɪv] *a* чувствительный
**rest** [rest] *n* покой; *v* отдыхать; основываться (на); оставаться без изменения
**restriction** [rɪs'trɪkʃən] *n* ограничение
**result** [rɪ'zʌlt] *n* результат; *v* происходить в результате
**retain** [rɪ'teɪn] *v* поддерживать, сохранить
**retardation** [ˌri:tɑ:'deɪʃən] *n* задержка (развития)
**retention** [rɪ'tenʃən] *n* задержание (мочи)
**reticulum** [rɪ'tɪkjuləm] *n* (*pl* **reticula**) тонкая сеть (волокон, соединительной ткани)
**retina** ['retɪnə] *n* (*pl* **retinae**) сетчатка
**return** [rɪ'tə:n] *n* возвращение; *v* возвращать(ся)
**reveal** [rɪ'vi:l] *v* выявлять, обнаруживать
**reverse** [rɪ'və:s] *a* обратный, противоположный; *v* изменить, перевернуть
**review** [rɪ'vju:] *n* обзор; *v* делать обзор
**rheumatic** [ru:'mætɪk] *a* ревматический
**rhythm** ['rɪθəm] *n* ритм
**rickets** ['rɪkɪts] *n* рахит
**right** [raɪt] *a* правый, правильный; *n* право; правая сторона
**rigidity** [rɪ'dʒɪdɪtɪ] *n* твердость, жесткость, стойкость
**rim** [rɪm] *n* ободок, край; *v* обрамлять
**rinse** [rɪns] *n* полоскание; *v* полоскать
**RNA (ribonucleic acid)** *n* РНК
**rotate** [rou'teɪt] *v* вращать
**route** [ru:t] *n* путь, маршрут
**rupture** ['rʌptʃə] *n* разрыв; *v* прорываться

## S s

**safe** [seɪf] *a* невредимый, безопасный
**safety** ['seɪftɪ] *n* безопасность, сохранность
**saline** [sə'laɪn] *a* солевой; *n* физиологический раствор
**saliva** [sə'laɪvə] *n* слюна
**salivary** ['sælɪvərɪ] *a* слюнной
**sanitize** ['sænɪtaɪz] *v* подвергать санитарной обработке
**saturate** ['sætʃəreɪt] *v* насыщать(ся), пропитывать(ся)
**save** [seɪv] *v* спасать
**scalp** [skælp] *n* кожа головы
**scapula** ['skæpjulə] *n* (*pl* **scapulae**) лопатка
**scar** [skɑ:] *n* шрам; *v* рубцеваться
**schedule** ['ʃedju:l] *n* таблица, график, план; *v* намечать
**scientist** ['saɪəntɪst] *n* ученый
**secondary** ['sekəndərɪ] *a* вторичный, второстепенный
**secrete** [sɪ'kri:t] *v* выделять
**section** ['sekʃən] *n* рассечение; секция; срез; часть
**sedation** [sɪ'deɪʃən] *n* седативный эффект
**seek** [si:k] **(sought)** *v* искать, стремиться (к)
**sensation** [sən'seɪʃən] *n* ощущение
**sense** [sens] *n* чувство; значение
**sensitivity** [ˌsensɪ'tɪvɪtɪ] *n* чувствительность

**sensitize** ['sensɪtaɪz] *v* повышать чувствительность
**separate** ['seprɪt] *a* отдельный; ['sepəreɪt] *v* отделять
**sepsis** ['sepsɪs] *n* сепсис
**sequence** ['si:kwəns] *n* последовательность; последствие
**serious** ['sɪərɪəs] *a* серьезный
**serum** ['sɪərəm] *n* сыворотка
**settle** ['setl] *v* уладить
**several** ['sevrəl] *pron* несколько
**severe** [sɪ'vɪə] *a* тяжелый
**severity** [sɪ'verɪtɪ] *n* тяжесть (заболевания)
**shade** [ʃeɪd] *n* тень, оттенок
**shadow** ['ʃædou] *n* тень
**shape** [ʃeɪp] *n* форма
**shatter** ['ʃætə] *v* дробить
**shin** [ʃɪn] *n* голень
**shock** [ʃɔk] *n* шок
**short** [ʃɔ:t] *a* короткий
**shorten** ['ʃɔ:tn] *v* укорачивать; сокращать
**shoulder** ['ʃouldə] *n* плечо
**show** [ʃou] **(showed, shown)** *v* показывать
**sibilant** ['sɪbɪlənt] *a* свистящий, шипящий
**sign** [saɪn] *n* знак
**signal** ['sɪgnl] *n* сигнал; *v* сигнализировать
**significant** [sɪg'nɪfɪkənt] *a* значительный, важный
**silent** ['saɪlənt] *a* безмолвный
**single** ['sɪŋgl] *a* единственный, один, одинокий
**site** [saɪt] *n* местоположение; бок, сторона; *v* располагать
**size** [saɪz] *n* размер
**skeleton** ['skelɪtn] *n* скелет
**skin** [skɪn] *n* кожа
**slight** [slaɪt] *a* незначительный, легкий, слабый
**slow** [slou] *a* медленный
**small** [smɔ:l] *a* маленький
**smell** [smel] **(smelt)** *v* пахнуть, издавать запах
**smoke** [smouk] *n* дым, курение; *v* курить
**smooth** [smu:ð] *a* гладкий
**snip** [snɪp] *v* обрезать, разрезать
**soak** [souk] *v* всасывать(ся), пропитывать(ся)
**sodium** ['soudjəm] *n* натрий
**soft** [sɔft] *a* мягкий
**solid** ['sɔlɪd] *a* твердый
**soluble** ['sɔljubl] *a* растворимый
**solvent** ['sɔlvənt] *a* растворяющий; *n* растворитель
**sonorous** [sə'nɔ:rəs] *a* звонкий
**soothe** [su:ð] *v* успокаивать; смягчать, облегчать
**sore** [sɔ:] *a* больной, воспаленный
**soreness** ['sɔ:nɪs] *n* болезненность, воспаленность
**sound** [saund] *n* звук; *v* звучать
**source** [sɔ:s] *n* источник, первопричина
**spasmodic** [spæz'mɔdɪk] *a* спазматический
**spastic** ['spæstɪk] *a* спастический
**specific** [spɪ'sɪfɪk] *a* специфический
**spectacles** ['spektəklz] *n* очки
**spectrum** ['spektrəm] *n* (*pl* **spectra**) спектр
**speculum** ['spekjuləm] *n* (*pl* **specula**) расширитель; зеркало
**speed** [spi:d] *n* скорость; *v* **(sped)** ускорять
**spine** [spaɪn] *n* позвоночный столб
**splint** [splɪnt] *n* шина
**sponge** [spʌndʒ] *n* губка; *v* собирать губкой
**spread** [spred] *n* распространение; *v* **(spread)** распространяться
**sputum** ['spju:təm] *n* (*pl* **sputa**) мокрота

**stabilize** ['steɪbɪlaɪz] *v* стабилизировать
**stable** ['steɪbl] *a* стойкий, прочный
**stapes** ['steɪpi:z] *n* стремя (слуховая косточка)
**stare** [steə] *v* смотреть пристально
**static** ['stætɪk] *a* статический
**status** ['steɪtəs] *n* статус
**stay** [steɪ] *n* пребывание; *v* оставаться; останавливаться (где-л.)
**stenosis** [stɪ'nousɪs] *n* стеноз
**step** [step] *n* поступок, этап, шаг; *v* шагать
**sternum** ['stə:nəm] *n* (*pl* **sterna**) грудина
**steroids** ['sterɔɪdz] *n* стероиды
**stimulate** ['stɪmjuleɪt] *v* побуждать, стимулировать
**stimulation** [ˌstɪmju'leɪʃən] *n* стимуляция
**stimulus** ['stɪmjuləs] *n* (*pl* **stimuli**) стимул
**stomach** ['stʌmək] *n* желудок
**stone** [stoun] *n* камень
**straight** [streɪt] *a* прямой
**strangle** ['stræŋgl] *v* душить, задыхаться
**streak** [stri:k] *n* полоска
**stream** [stri:m] *n* поток
**strength** [streŋθ] *n* сила
**streptococcus** [ˌstreptou'kɔkəs] *n* (*pl* **streptococci**) стрептококк
**streptokinase** [ˌstreptou'kaɪneɪz] *n* стрептокиназа
**stress** [stres] *n* нажим, стресс; *v* подчеркивать, особо отмечать
**stroke** [strouk] *n* припадок, «удар», инсульт
**strong** [strɔŋ] *a* сильный
**study** ['stʌdɪ] *n* изучение; *v* изучать
**subcutaneous** ['sʌbkju:'teɪnjəs] *a* подкожный
**subject** ['sʌbdʒɪkt] *n* предмет (разговора); *v* [səb'dʒekt] подвергать
**sublingual** [sʌb'lɪŋgwəl] *a* подъязычный
**subside** [səb'saɪd] *v* убывать, утихать
**substitute** ['sʌbstɪtju:t] *n* замена, заменитель; *v* заменять
**success** [sək'ses] *n* успех, удача
**sudden** ['sʌdn] *a* внезапный
**suddenly** ['sʌdnlɪ] *adv* внезапно, вдруг
**sufficient** [sə'fɪʃənt] *a* достаточный
**suggest** [sə'dʒest] *v* предлагать
**superficial** [ˌsju:pə'fɪʃəl] *a* поверхностный
**supervene** [ˌsju:pə'vi:n] *v* происходить вслед за чем-л.
**supplement** ['sʌplɪmənt] *n* дополнение, приложение
**supply** [sə'plaɪ] *n* поставка; снабжение; *v* снабжать, поставлять
**support** [sə'pɔ:t] *n* поддержка; *v* поддерживать
**suppose** [sə'pouz] *v* предполагать, полагать
**suppress** [sə'pres] *v* сдерживать, подавлять
**suppression** [sə'preʃən] *n* подавление
**surface** ['sə:fɪs] *n* поверхность
**surgeon** ['sə:dʒən] *n* хирург
**surgery** ['sə:dʒərɪ] *n* хирургия
**surprise** [sə'praɪz] *n* неожиданность; *v* удивлять
**surround** [sə'raund] *v* окружать
**survey** ['sə:veɪ] *n* обозрение; *v* [sə'veɪ] обозревать
**suspect** [səs'pekt] *v* подозревать
**swallow** ['swɔlou] *v* глотать
**sweat** [swet] *n* пот
**swelling** ['swelɪŋ] *n* опухлость
**syndrome** ['sɪndroum] *n* синдром

**synthesis** ['sɪnθɪsɪs] *n* (*pl* **syntheses**) синтез
**synthetic** [sɪn'θetɪk] *a* искусственный
**syrup** ['sɪrəp] *n* сироп
**systole** ['sɪstəlɪ] *n* систола

## T t

**tablet** ['tæblɪt] *n* таблетка
**tachycardia** [ˌtækɪ'kɑ:dɪə] *n* тахикардия
**tachypnea** [tæ'kɪpni:ə] *n* тахипноэ (учащенное дыхание без его углубления)
**target** ['tɑ:gɪt] *n* цель, мишень
**taste** [teɪst] *n* вкус; *v* пробовать
**technique** [tek'ni:k] *n* технический прием, методика
**temporary** ['tempərərɪ] *a* временный
**tend** [tend] *v* иметь склонность, тенденцию (к)
**tender** ['tendə] *a* нежный; болезненный
**tenderness** ['tendənɪs] *n* болезненность
**tenesmus** [tə'nezməs] *n* тенезмы (ложные болезненные позывы к дефекации)
**tension** ['tenʃən] *n* напряженность
**test** [test] *n* тест, проба, анализ; *v* подвергать проверке, тестировать
**therapeutic** [ˌθerə'pju:tɪk] *a* терапевтический
**thiamine** ['θaɪəmi:n] *n* тиамин, витамин $B_1$
**thick** [θɪk] *a* толстый
**thicken** ['θɪkən] *v* расти, утолщаться
**thin** [θɪn] *a* тонкий
**think** [θɪŋk] **(thought)** *v* думать
**thirst** [θə:st] *n* жажда
**thread** [θred] *n* нить
**throat** [θrout] *n* горло
**thrombosis** [θrəm'bousɪs] *n* тромбоз
**through** [θru:] *prep* через, сквозь; благодаря
**thyroid** ['θaɪrɔɪd] *n* щитовидная железа
**tibia** ['tɪbɪə] *n* (*pl* **tibiae**) большеберцовая кость
**tight** [taɪt] *a* плотный, сжатый, тугой
**tightness** ['taɪtnɪs] *n* напряженность
**tilt** [tɪlt] *n* наклон; *v* наклоняться, опрокидываться, поворачиваться
**time** [taɪm] *n* время; раз
**tiny** ['taɪnɪ] *a* очень маленький, крошечный
**tiredness** ['taɪədnɪs] *n* усталость
**tissue** ['tɪsju:] *n* ткань
**tobacco** [tə'bækou] *n* табак
**tolerate** ['tɔləreɪt] *v* терпеть, выносить; быть толерантным
**tone** [toun] *n* тон
**tongue** [tʌŋ] *n* язык
**tonsil** ['tɔnsl] *n* миндалевидная железа
**tonsillectomy** [ˌtɔnsɪ'lektəmɪ] *n* тонзиллэктомия
**tonsillitis** [ˌtɔnsɪ'laɪtɪs] *n* тонзиллит
**tooth** [tu:θ] *n* (*pl* **teeth**) зуб
**top** [tɔp] *n* верхушка, вершина
**topical** ['tɔpɪkəl] *a* местный, имеющий местное значение
**total** ['toutl] *a* весь, целый, полный
**touch** [tʌtʃ] *n* прикосновение; *v* прикасаться
**toxemia** [tɔk'si:mɪə] *n* токсемия
**toxic** ['tɔksɪk] *a* ядовитый
**toxicity** [tɔk'sɪsɪtɪ] *n* токсичность
**tracheobronchial** [ˌtræki:ou'brɔŋkɪəl] трахеобронхиальный
**tract** [trækt] *n* тракт
**transform** [træns'fɔ:m] *v* трансформировать, превращать, преобразовать

**transient** ['trænzɪənt] *a* переходящий, неустановившийся
**transmit** [træns'mɪt] *v* передавать (сигналы, импульсы и т.д.)
**transparent** [træns'pɛərənt] *a* прозрачный
**transplant** [træns'plɑ:nt] *v* пересаживать
**trauma** ['trɔ:mə] *n* травма
**traumatic** [trɔ:'mætɪk] *a* травматический
**treat** [tri:t] *v* лечить
**treatment** ['tri:tmənt] *n* лечение
**tremor** ['tremə] *n* дрожание, тремор
**trial** ['traɪəl] *n* опыт, испытание, проба
**triangular** [traɪ'æŋgjulə] *a* треугольный, трехгранный
**trigger** ['trɪgə] *v* пустить в ход, привести в движение
**trio** ['tri:ou] *n* трио
**troublesome** ['trʌblsəm] *a* причиняющий беспокойство
**tube** [tju:b] *n* трубка; тюбик
**twice** [twaɪs] *adv* дважды
**type** [taɪp] *n* тип, образец
**typical** ['tɪpɪkəl] *a* типичный

## U u

**ulcer** ['ʌlsə] *n* язва
**ulcerative** ['ʌlsərətɪv] *a* язвенный
**ultrasound** [ˌʌltrə'saund] *n* ультразвук
**uncertain** [ʌn'sə:tn] *a* сомнительный
**underlie** [ˌʌndə'laɪ] **(underlay, underlain)** *v* лежать в основании чего-л.
**understand** [ˌʌndə'stænd] **(understood)** *v* понимать
**undue** ['ʌn'dju:] *a* неподходящий, несвоевременный, неправомерный
**unless** [ən'les] *cj* если не
**unpredictable** [ˌʌnprɪ'dɪktəbl] *a* непредсказуемый
**upper** ['ʌpə] *a* верхний
**upset** [ʌp'set] *n* беспорядок, расстройство
**ureter** [ju'ri:tə] *n* мочеточник
**urethra** [ju'ri:θrə] *n* уретра
**urge** [ə:dʒ] *n* побуждение; *v* побуждать
**urinary** ['juərɪnərɪ] *a* мочевой
**urine** ['juərɪn] *n* моча
**urolithiasis** ['juərouli'θaɪəsɪs] *n* мочекаменная болезнь
**usage** ['ju:zɪdʒ] *n* использование, употребление
**use** [ju:z] *v* использовать, применять; [ju:s] *n* применение; польза
**useful** ['ju:sful] *a* полезный
**uterus** ['ju:tərəs] *n* (*pl* **uteri**) матка

## V v

**vacation** [və'keɪʃən] *n* каникулы, отпуск
**vaginal** [və'dʒaɪnəl] *a* вагинальный
**vaginitis** [ˌvædʒɪ'naɪtɪs] *n* эндокольпит, вагинит
**vague** [veɪg] *a* неопределенный, неясный, смутный
**variable** ['vɛərɪəbl] *a* изменчивый, разнообразный
**variety** [və'raɪətɪ] *n* разнообразие
**various** ['vɛərɪəs] *a* различный
**vary** ['vɛərɪ] *v* менять(ся), изменять(ся)
**vascular** ['væskjulə] *a* сосудистый
**vasoconstrictive** [ˌveɪsoukən'strɪktɪv] *a* сосудосуживающий
**vasomotor** [ˌveɪsou'moutə] *a* вазомоторный
**vast** [vɑ:st] *a* обширный
**vegetable** ['vedʒɪtəbl] *n* овощ
**ventricular** [vən'trɪkjulə] *a* вентрикулярный, желудочковый

**vesicle** ['vesɪkl] *n* пузырек, везикула
**vessel** ['vesl] *n* сосуд
**victim** ['vɪktɪm] *n* жертва
**viral** ['vaɪərəl] *a* вирусный
**vision** ['vɪʒən] *n* зрение
**visual** ['vɪzjuəl] *a* зрительный
**vital** ['vaɪtəl] *a* жизненный
**vocal** ['voukəl] *a* голосовой
**voice** [vɔɪs] *n* голос
**volume** ['vɔljum] *n* объем
**vomit** ['vɔmɪt] *n* рвота; *v* страдать рвотой
**vulva** ['vʌlvə] *n* вульва, наружные женские половые органы

## W w

**wall** [wɔ:l] *n* стенка
**warn** [wɔ:n] *v* предупредить
**warrant** ['wɔrənt] *v* оправдывать; подтверждать; гарантировать
**wave** [weɪv] *n* волна
**way** [weɪ] *n* путь, способ
**weakness** ['wi:knɪs] *n* слабость
**wear** [wɛə] **(wore, worn)** *v* носить (на себе, как одежду)
**weight** [weɪt] *n* вес
**well-being** ['wel'bi:ɪŋ] *n* благополучие
**wheeze** [wi:z] *n* тяжелое дыхание, хрип
**wide** [waɪd] *a* широкий
**widely** ['waɪdlɪ] *adv* широко
**widespread** ['waɪdspred] *a* широко распространенный
**withdrawal** [wɪθ'drɔ:əl] *n* изъятие; уход, вывод
**worry** ['wʌrɪ] *v* надоедать, беспокоить(ся)
**worsen** ['wə:sn] *v* ухудшать(ся)
**wound** [wu:nd] *n* рана; *v* ранить
**wrinkle** ['rɪŋkl] *n* морщина; *v* морщиваться

## Y y

**yeast** [ji:st] *n* дрожжи

*Учебное издание*

**Щедрина Татьяна Петровна**

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