

АНГЛИЙСКИЙ ЯЗЫК. English in Dentistry

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ПРЕДИСЛОВИЕ КО ВТОРОМУ ИЗДАНИЮ

Настоящий учебник предназначен для студентов стоматологических факультетов медицинских вузов и составлен с учетом языковой базы, сформированной у студентов в процессе изучения английского языка в средней общеобразовательной школе.

Целью учебника является формирование у студентов-стоматологов навыков чтения и перевода аутентичных медицинских текстов, пополнение словарного запаса специальной стоматологической лексикой, а также развитие навыков профессионально-ориентированной устной речи для более широкого включения в сферу общения на английском языке в области медицины и стоматологии. Учебник содержит тексты для практики перевода, ознакомительного, поискового и изучающего чтения, лексические, грамматические и коммуникативные упражнения, грамматические комментарии и справочные материалы, необходимые в учебном процессе, приложения и англо-русский стоматологический словарь.

Учебник построен по тематическому принципу и состоит из десяти разделов (20 уроков), охватывающих основные направления профессиональной деятельности будущих стоматологов: основные системы органов человека (major organ systems), зубы, прорезывание зубов (human teeth, eruption of teeth), ротовая полость, зубные ткани (mouth cavity, dental tissues), организация здравоохранения и стоматологической помощи в России и Великобритании (health care in Russia and Great Britain), распространенные заболевания зубов и полости рта (diseases of the teeth and mouth cavity), профилактика стоматологических заболеваний, лечение и протезирование зубов (oral disease prevention, endodontics, dental prosthetics).

Ввиду того что авторы придают большое значение работе над оригинальными текстами в процессе обучения языку, было сочтено необходимым построить учебный материал в двух планах, дополняющих друг друга, что и нашло свое отражение в структуре уроков, каждый из которых состоит из двух частей. Первая часть урока содержит оригинальный текст, и главный упор в ней делается на изучение, толкование перевода и передачу содержания текста, а также на расширение словарного запаса студентов и на анализ изучаемых лексических единиц (выявление многозначности, подбор синонимов, антонимов и т.д.) в целях развития навыков устной и письменной речи. Вторая часть урока представляет собой

дальнейшую разработку соответствующей темы и рассчитана на расширение запаса лексических единиц.

Каждый раздел (unit) содержит 2-3 урока (lessons). В первой части урока основному тексту предшествует список труднопереводимых слов, словосочетаний и терминов при этом отбор лексических единиц обусловлен частотностью их употребления в речи.

Тексты, на которых строится работа в первой части каждого урока, взяты из оригинальных источников, они даются без адаптации с частичным сокращением. По своему содержанию они связаны с текстами второй части урока. Система упражнений включает дотекстовые и послетекстовые лексические упражнения, грамматические упражнения на повторение ранее изученного материала и отработку новых тем, упражнения для развития навыков устной речи, что позволяет последовательно и качественно усвоить предложенный лексикограмматический материал и научиться применять полученные знания в практической работе с английским языком.

В основу системы упражнений положены следующие методические принципы: упражнения даны в порядке нарастания сложности; устные упражнения чередуются с письменными. Представленный в конце учебника раздел Grammar Revision позволяет повторить и закрепить пройденный материал. Упражнения для развития навыков устной речи дают возможность научиться составлять сообщение на основе прочитанного текста, выражать свое мнение по поводу прочитанного, вести беседу в рамках изученной тематики. Оригинальные научно-популярные тексты, входящие в раздел Additional Reading Material, способствуют формированию самостоятельных высказываний по изучаемому разделу стоматологии и созданию условий для последовательной и целенаправленной работы по освоению навыков перевода и реферирования иноязычного текста по специальности.

Учебник также включает ряд полезных приложений, в том числе англо-русский стоматологический словарь, список терминов и словообразовательных элементов греко-латинского происхождения, используемых в медицине и стоматологии, которые трудно найти в других справочниках, а также списки предлогов, соединительных слов и сокращений, представляющих определенные трудности при переводе оригинальных текстов.

При создании данного учебника использовались следующие источники.

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Авторы

UNIT I. BECOMING A DENTIST

Lesson 1

An Introduction to Dentistry. Why Consider a Dental Career. Grammar: Present and Past Simple

Exercise 1. Translate into Russian the following words and word combinations of Latin and Greek origin. Practice their English pronunciation.

dentistry, clinician, condition, process, science, qualified professionals, abnormal, anomaly, cause, detection, process, specialize, prevention, to manifest, endodontist, general dentist, orthodontist, pediatric dentist, periodontist, prosthodontist

Exercise 2. Learn the active vocabulary to the text.

a wide range of - целый ряд, большое количество

at the forefront of - в авангарде

dental practices - практическая стоматология

diagnostic - диагностический

fixed/removable prosthetic - постоянные/съемные протезы

appliances

gum - десна

malocclusion - неправильный прикус

oral diseases - стоматологические заболевания

preventive - профилактический

problems related to - проблемы, связанные с

rehabilitative - реабилитационный

skills - навыки

standards of (dental) health - уровень здравоохранения

(в области стоматологии)

surgical - хирургический

teeth (a tooth) - зубы (зуб)

through diagnosis, treatment - посредством диагностики and rehabilitation и
лечения

to contribute to the qualify - способствовать улучшению

of life качества жизни

to fill a tooth - поставить пломбу

to maintain the health of teeth - следить за здоровьем зубов

to provide a wide range of care - предоставлять широкий спектр

услуг

to restore damaged/missing tooth - лечить/протезировать зубы

tooth decay - кариес

Exercise 3. Before reading the text translate the following words and word combinations.

a completely out-of-date notion, a branch of the healing arts and sciences, adjacent structures, irregular dental development, new developments in dentistry, clinical fields, dentists are instrumental in early detection of systemic body conditions, altered facial appearance, abnormal speech, to suit one's interests, effects of the disease, adolescence, an array of professional opportunities, a range of

Exercise 4. Read the text and translate it into Russian.

AN INTRODUCTION TO DENTISTRY

Dentistry is the branch of the healing arts and sciences devoted to maintaining the health of the teeth, gums, and other hard and soft tissues of the oral cavity and adjacent structures. A dentist is a scientist and clinician dedicated to the highest standards of health through prevention, diagnosis, and treatment of oral diseases and conditions.

The notion of dentists as those who merely «fill the teeth» is completely outof-date. Today, dentists are highly qualified health professionals who provide a wide range of care that contributes enormously to the quality of their patients' day-to-day lives by preventing tooth decay, periodontal disease, malocclusion, and oral-facial anomalies.

These and other oral disorders can cause significant pain, improper chewing or digestion, dry mouth, abnormal speech, and altered facial appearance. Dentists are also instrumental in early detection of oral cancer and systemic conditions of the body that manifest themselves in the mouth, and they are at the forefront of a range of new developments in cosmetic and aesthetic practices. There are many clinical fields in dentistry.

General dentists use their oral diagnostic, preventive, surgical, and rehabilitative skills to restore damaged or missing tooth structures and treat diseases in the mouth and adjacent structures.

Endodontists diagnose and treat diseases and injuries that are specific to the dental nerves and pulp (the matter inside the tooth).

Oral pathologists are dental scientists who study and research the causes, processes, and effects of diseases of the mouth cavity.

Orthodontists treat problems related to irregular dental development, missing teeth, and other abnormalities.

Pediatric dentists specialize in treating children from birth to adolescence.

Periodontists diagnose and treat diseases of the gingival tissue and periodontium.

Prosthodontists replace missing natural teeth with fixed or removable prosthetic appliances.

Dentistry offers an array of professional opportunities from which individuals can choose to best suit their interests.

VOCABULARY EXERCISES

Exercise 1. Give English equivalents to the following words and word combinations.

стоматология, раздел медицины, следить за здоровьем зубов, высокий уровень здравоохранения, способствовать чему-либо, быть причиной чего-либо, обнаружение заболеваний на ранней стадии, предоставлять разнообразную помощь, ткани ротовой полости

Exercise 2. Look for the synonyms or synonymous expressions for the following words in the text (there may be more than one to a word). Translate them into Russian.

a disease, a branch, a range of, medicine

Exercise 3. Translate the verbs and their derivatives into Russian.

to heal - healer, healing

to prevent - preventive, prevention

to diagnose - diagnosis, diagnostic

to treat - treatment

to qualify - qualified, qualification

to cause - a cause, causative (factor)

to develop - development, developmental (disorder)

Exercise 4. Fill in the blanks in sentences from the text «An Introduction to Dentistry* with prepositions where necessary. Translate them.

1. Dentistry is the branch_the healing arts and sciences devoted_
maintaining the health_teeth and adjacent structures.

2. Dentists are dedicated_the highest standards_health_prevention, diagnosis and
treatment_oral diseases and conditions.

3. Today, dentists provide a wide range_care that contributes enormously _the
quality_their patients' lives_preventing oral diseases
and anomalies.

4. Dentists are also instrumental_early detection_oral cancer and
systemic conditions _the body that manifest themselves _ the
mouth.

5. Dentists are also_the forefront_a range_new developments
_cosmetic and aesthetic practices.

GRAMMAR EXERCISES

Exercise 1. Give Present and Past Simple forms for the following verbs that appear in the text «An Introduction to Dentistry*. Translate them.

be study treat restore use choose cause provide

Exercise 2. The following sentences are answers. Provide the missing questions, general or special, for them.

1. _?

I am a dental student.

2. _?

The boy did not like the idea of consulting a dentist.

3. _?

General dentists treat diseases in the mouth and adjacent structures.

4. _?

Pediatric dentists specialize in treating children.

5. _?

Dentistry offers an array of professional opportunities to choose from.

6. _?

There were no people in the consulting room.

7. _?

They have the best of professional care from their family doctor.

Exercise 3. Answer the following questions.

1. What are you?

2. Where do you come from?

3. Do you work or study?

4. When did you enter this university?

5. Where were you a year ago?

6. Do you speak languages?

7. Where did you go yesterday?

Exercise 4. Fill in the blanks putting the verbs in brackets in correct forms.

1. There_(be) many clinical fields in dentistry.
2. Orthodontists_(treat) problems related to irregular dental development.
3. He_(be) a pediatric dentist at first, but now he_(specialize) in adult dentistry.
4. Dentists_(not merely «fill») the teeth - the notion_(be) completely out-of-date.
5. Only when his tooth_(start) to cause too much pain last night, he_(go) to see a dentist.
6. They_(not come) to visit their parents yesterday.
7. The girl_(come) for treatment every day.

SPEECH EXERCISES

Exercise 1. Answer the following questions to the text.

1. What is dentistry?
2. Who can be called a dentist?
3. What sort of professional care do dentists provide?
4. Why is maintaining dental health so important?
5. How can dentists be helpful with problems unrelated to dental disorders?
6. What professional opportunities does dentistry offer?
7. What do general dentists do?
8. What diseases do endodontists specialize in?
9. Pediatric dentists treat children, don't they?
10. What is the specialty of periodontists?

11. What can prosthodontists do for their patients?

Exercise 2. Read the text below using a dictionary, and be ready to speak on why you want to become a dentist. If you find it difficult, there are questions to help you that come after the text.

WHY CONSIDER A DENTAL CAREER?

People like you who choose dentistry as a career open up a world of opportunities that exist for dentists now and make oral health one of the most exciting, challenging, and most rewarding professions.

Dental schools are looking for individuals who are motivated, academically prepared, socially conscious, and knowledgeable about the profession. What can you say about yourself that will make you stand out? Why Dentistry?

A STUDENT PROFILE OF RENEE ROLAND, UNIVERSITY OF BUFFALO SCHOOL OF DENTAL MEDICINE

Why dentistry? There are no dentists in my family, and I had no experience with dentistry, but in high school I had a dream of becoming a doctor one day. I felt dentistry would be a good mix of science and interacting with patients, so it was always my intention during undergrad (last year at university) that I was going to pursue dentistry. I attended Canisius College and took a special course in biology. Canisius has a program with the University of Buffalo (UB) that allowed me to apply to dental school in my second university year. I did and was accepted. It was the best decision I ever made.

What are you doing now? I'm finishing my fourth year of dental school and applying to orthodontic residency program. I went to dental school with the intention of practicing general dentistry, but you just don't know what is going to happen. I found I loved orthodontics and working with kids. I also did research this

summer in molecular biology. We were studying the expression of genes in bone cells.

Where do you see yourself in five years? Hopefully, I will have finished my schooling. I want to remain in the New York area and become an associate in an orthodontic practice. I really enjoy treating patients.

Questions:

1. How did you become interested in studying dentistry? (Explain how you discovered dentistry as a career possibility).
2. What have you done to demonstrate your interest in dentistry? (Have you observed or worked in dental offices. Have you talked to practising dentists?)
3. Do you have any special talents or skills for the profession? Exercise 3. Read the text below and give a short summary of it.

PERSPECTIVES ON HEALTH CARE IN THE NEW MILLENIUM

In the United States of America and in Canada, perspectives on health care have changed over the last 30 years. Today, the public sees itself as a consumer of health-care services and products. This means that when individuals seek advice or treatment, they often come well-informed about their health issues and needs.

Today's patient expects to be treated as an intelligent, competent person by the doctor, nurse, and other health-care professionals. No longer is the patient a passive receiver of health care. The new patient comes with information, education, and an inquiring mind.

Professionally, today's view of health care is concerned with health promotion and disease prevention. It is no longer disease-focused or cure-focused. Health care is concerned with quality of life. In this new perspective, it extends beyond health challenges and basic medical care to lifestyle adaptations to ensure optimal health.

Healthy living programs in schools, businesses, and community agencies are an example of health promotion initiatives. Healthcare professionals and government at all levels collaborate with communities and patients/health-care consumers not only to promote health but also to provide the best health care possible.

Lesson 2

Students` Life. Dental Education Abroad.

Grammar: Future Simple

PRE-READING EXERCISES

Exercise 1. Translate the words of Greek and Latin origin. Practice their pronunciation.

study, student, university, hall, subject, Latin, medicine, anatomy, biology, chemistry, histology, classes, fortunately, lecture, term

Exercise 2. Learn the active vocabulary to the text.

academic year - учебный год

canteen - столовая

credit-test - зачет

department - кафедра

entrance examination - вступительный экзамен

Hall - общежитие

holiday - каникулы

in different fields of science - в разных областях науки

it takes me - на это у меня уходит... (о времени)

practical training - практика

pre-clinical subjects - доклинические дисциплины

special subjects - специальные предметы

subject - предмет (обучения)

term - семестр

to acquire knowledge - приобретать знания

to attend classes and lectures in - посещать занятия и лекции по

to enter a university - поступить в университет

to fail in an examination - не сдать экзамен («провалиться»)

to get a stipend - получать стипендию

to last for - продолжаться в течение

to take/pass examinations - сдавать/сдать экзамены

to work hard - упорно работать

under the guidance of - под руководством

Exercise 3. Read the text and translate it into Russian.

STUDENTS' LIFE

Dear Helen,

I am so happy! I passed all the entrance exams successfully last summer and now I am a student of Moscow State Medicine and Dentistry University. It's the leading dental school in Russia. Apart from the Dentistry faculty there are also general medicine, secondary dental education and some others. The number of its departments is enormous, about a hundred in all. And all that started from a modest dental school way back in 1932, can you imagine?

We study different subjects such as the history of medicine, Latin, foreign languages, Anatomy, Biology, Physics, etc. No sign of dentistry yet. These are so-called pre-clinical subjects. At the end of the third year, after we have studied some special subjects, we'll have our first practical training. Then we'll be allowed to diagnose and treat patients on our own, even if under the guidance of our teachers.

I live in Hall, like many other students who do not come from Moscow. It is rather far from the main building of our university and it takes me about an hour to get there. Fortunately, the bus stop is quite near. Our classes usually begin at 9 in the morning and end at around 3-4 p.m. Unlike at school, they last for 90 minutes. During a break we may have some rest or get a snack at the university's canteen. Apart from practical classes we also have a lecture or two every day.

When back in Hall I have my dinner and sit down to prepare my homework. I'm often tired, but I like it just the same. Every day we learn a lot of interesting things in different fields of science. We often work in laboratories and have to read additional literature on some subjects in the library, too. Everybody understands that the knowledge we acquire at present will be necessary for our future work. When I happen to have some free time, which is very seldom, I listen to the music or watch TV.

But now I'm working harder than ever. My first term here is coming to an end. There are two terms in the academic year and at the end of each one, in winter and in spring, we have examination sessions: several credit-tests and examinations. Those who get good marks get stipends. I hope I won't fail. Anyway, I'm going to do my best.

Well, I must finish now. It's already past midnight and I've got to get some sleep or I won't be able to get up in the morn. I miss you very much. There'll be a lot to talk about when the examination session is over and I am back home again, for a holiday.

Love, Kate

VOCABULARY EXERCISES

Exercise 1. Give the English for the following Russian words and word combinations.

поступать в университет, сдавать вступительные экзамены, сдавать зачеты, не сдать экзамен, посещать занятия, ходить на лекции, доклинические дисциплины, стоматологическая практика, приобретать знания, упорно работать, жить в общежитии, получать стипендию

Exercise 2. Give good Russian for the following words and word combinations.

under the guidance of, at around 3 p.m., for about an hour, a lot of interesting things, no sign of dentistry yet, to do one's best, to be over, even if, unlike at school, anyway

Exercise 3. Fill in the gaps with prepositions where necessary. Translate the sentences.

1. He could not enter_the university_last year.
2. Two times a year students_higher schools take examinations_
different subjects.
3. Usually I get_early_the morning and leave_the university_around 8 a.m.
4. How long does it take you to get_the university_time?
5. Ann always prepares_the library_her Anatomy class.
6. We were a little tired_the session but happy that it was_.
- 7._Fridays we usually have a lecture_Physics.
- 8._the library I usually go back_Hall.

9. _the lecture the professor told us _the application _physics
_medicine.

10. Our classes usually last _90 minutes, and breaks _10-15.

11. We will need the knowledge we acquire _our future work.

12. He did not attend _lectures in Anatomy and therefore failed _
the exam.

Exercise 4. Complete the sentences with words from the active vocabulary. The first letters are given to help you.

1. They all are students of the D _faculty.

2. Third-year students will have their first p _t _in summer.

3. Every day, those who study at a university a _c _in different
s _.

4. Those who do not come from Moscow live in H _.

5. To get a s _you must study well and pass c _and examinations
successfully.

6. During their classes and lectures future dentists a _the knowledge
in many f _of science.

7. Fourth-year dental students are allowed to treat patients under the g _
of their teachers.

8. A full-time course of dental education in Russia l _for five years.

GRAMMAR EXERCISES

Exercise 1. Fill in the blanks with correct forms of the verbs in brackets, paying special attention to IF and WHEN-clauses.

1. Tomorrow_(be) my first day at the university.
2. In three weeks' time, at the end of their practical training at dental clinics the students_(have) a holiday.
3. Five years_(have to pass) before you_(get) a master's degree.
4. If you_(wait) for some time, I_(find) the book for you.
5. I_(see) you later, then. Don't forget, we are going to the theatre today.
6. When I_(get) back home it_(be) too late to start doing anything.
7. Nobody knows when the professor_(arrive).

Exercise 2. Translate the following sentences into Russian paying special attention to future forms.

1. Завтра занятия у нас начнутся позже, в 10 утра.
2. Лекции по физике будут проводиться в главном здании университета.
3. Если поступишь в университет, экзамены придется сдавать два раза в год.
4. Если студенты сдадут сессию успешно, они будут получать стипендию.
5. На следующей неделе я уезжаю домой на каникулы. Поедешь со мной?
6. Если быстро подготовимся к занятиям, успеем сходить в кино.
7. Я собираюсь в магазин. Тебе ничего не надо?

SPEECH EXERCISES

Exercise 1. Answer the questions based on the text.

1. Where do you study?

2. What is your faculty?
3. What year are you in?
4. Could you say a few words about your university?
5. What is the academic year?
6. What subjects do you study?
7. What about your classes? When do they start? How long do they last?
8. What do you do when your classes are over?
9. Do you find it hard to study at the university?
10. How do you spend your free time?
11. What is your favorite pastime?
12. What do you think of your studies?

Exercise 2. Read and translate the text below paying special attention to the words in italics. Answer the questions that follow.

DENTAL EDUCATION ABROAD

The goal of all dental school programs in the USA and Canada is to produce graduates who are competently educated in the basic biological and clinical sciences, and capable of providing quality dental care to all segments of the population. The traditional dental school program requires four academic years of study.

Years One and Two.

Students generally spend the major part of the first two years studying the *biological sciences* to learn about the structure and function of the human body and its diseases. Students also *receive instruction about basic sciences* such as

human anatomy, physiology, biochemistry, microbiology and pharmacology, and *dentally oriented biological sciences* such as *oral anatomy, oral pathology, and oral histology*. They also learn the *basic principles of oral diagnosis and treatment* and begin *mastery of dental treatment procedures through practice on models of the mouth and teeth*. In many programs, students begin *interacting with patients and provide basic oral health care*.

Years Three and Four.

The focus of the final two years of dental school generally *concentrates on clinical study*. Clinical training *is designed to provide competence in the prevention, diagnosis, and treatment of oral diseases and disorders*. Students apply basic principles and techniques involved in oral diagnosis, treatment planning, restorative dentistry, periodontics, oral surgery, orthodontics, pediatric dentistry, prosthodontics, endodontics, and other types of treatment *through direct patient care*. They learn to attend to chronically ill, disabled, special care, and geriatric patients and children. In addition, dental schools provide instruction *in practice management* and in working effectively with *allied dental personnel* to provide dental care. The D.M.D. (Doctor of Dental Medicine) and the D.D.S. (Doctor of Dental Surgery) are equivalent *degrees that are awarded to dental students upon completion of the same types of programs*.

Basic dental training in the United Kingdom consists of *a full-time course leading to a Bachelor's degree*. The degree course lasts for five years and includes an academic education supporting clinical practice of the care of patients. Graduates from UK dental schools must undertake a further year of *vocational training (hands-on contact with patients)*, after registering with the General Dental Council (GDC), before they can practice in the UK.

Questions:

1. How long is the traditional dental training course in the USA, Canada and UK?
2. What do students learn during the first two years at American dental schools?
3. What do the final two years of instruction focus on?
4. What degrees are awarded to graduates of American and Canadian dental schools?
5. What does the basic dental training in the UK involve?
6. How long does the degree course last?
7. What does it include?
8. What degree is awarded to British graduates upon completion of dental training?
9. What is necessary for a UK graduate to start practice in his/her own country?

Exercise 3. Read and translate the text below using a dictionary. Be ready to say what you think of introducing the Bologna principles in Russia.

RUSSIA AND THE BOLOGNA PROCESS

Russia joined the Bologna Process in 2003 and is in the process of actually transforming its higher education system to make it compatible with Bologna principles. In particular, Russia has essentially moved to the two-tier, bachelor's-master's or four-plus-two year system. The actual transformation is yet to happen, but all the legal foundations are in place. Universities that want to build internationally competitive, and internationally compatible, undergraduate and masters programs have all the necessary tools.

The switch makes real sense. The Bologna Process, which started in 1999, is now a union of about 50 countries, including most European states, as they try to

establish a unified higher education area, capable of competing with North America.

The «Bologna ideology» means it will be normal to find a job after a bachelor's degree rather than go on to study for a master's. The Bologna Process gives Russian universities an instrument for bilateral student exchanges and therefore wakes them up to the realities of the European educational system. It provides Russian universities with opportunities to create new programs both broad undergraduate programs and specialized master's programs.

Exercise 4. Revise the material of the lesson and get ready to speak on one of the following topics making out a plan for it first.

1. My University.
2. My Working Day.
3. Dental Education in Russia and Abroad.

UNIT II. MAJOR ORGAN SYSTEMS

Lesson 3

Musculoskeletal System. Skull Bones.

Cardiovascular System. Grammar: Participle I. Continuous Tenses

Exercise 1. Find the pronunciation of the following words in the dictionary and translate them.

oxygen, musculoskeletal, respiratory, cardiovascular, digestive, structure, organic, substance, periosteum, column, cranium, mandible, maxilla, zygomatic, curculatory, myocardial, aorta, carbon dioxide, lymph, muscle

Exercise 2. Active vocabulary. Learn the following words.

cartilage - хрящ

connective tissue - соединительная ткань

efficient machine - умный (знающий) механизм

fibrous tissue - фиброзная ткань

inward and outward - внутренний и внешний (наружный)

ligament - связка

lower jaw bone - нижняя челюстная кость

musculoskeletal system - опорно-двигательная система

periosteum - надкостница

protective tissue - защитная ткань

spinal column - позвоночный столб

tendon - сухожилие (связка)

to be composed of - состоять из чего-либо

to be knit together - быть соединенным

to be nourished by - питать что-либо

to be responsible for - отвечать за что-либо

to be supplied with - быть снабженным чем-либо

to be supported by - поддерживать

to consist of - состоять из чего-либо

to convert - превращать

to protect - защищать

to provide - обеспечивать, давать

Exercise 3. Translate the following word combinations before reading the text.

a remarkably complex and efficient machine, digestive food, vital internal organs, much lighter and more flexible, to be held together by a cementlike substance, to transport oxygen, it runs up and down, at the bottom, by contracting in response to nerve signals

Exercise 4. Read and translate the following text into Russian.

MUSCULOSKELETAL SYSTEM

The human body is a remarkably complex and efficient machine. It takes in and absorbs oxygen through the respiratory system. Then the oxygen-enriched blood is distributed through the cardiovascular system to all tissues. The digestive system converts digestible food to energy and disposes of the rest. The skeletal-muscular system gives form to the body, and covering almost the entire mass is the skin, the largest organ of the body. The science of the structure of this complicated «machine» is called anatomy.

One of the major systems is the *skeletal-muscular* system. The body is supported and given shape by this structure, consisting of more than 200 bones and the muscles and tendons which are connected to them. They are strong but can bend at their joints. They also serve as a shield, protecting the vital internal organs from injury.

Bones are as strong as steel but much lighter and more flexible. They are composed of minerals, organic matter, and water, held together by a cementlike substance called *collagen*, and are filled with red and yellow bone marrow. The red marrow produces the red blood cells used throughout the body to transport oxygen, while the yellow marrow consists primarily of fat cells. A tough membrane called the *periosteum* covers most of the bone surface and allows bones to be nourished by blood.

A major bone structure in the body is the vertebral (spinal) column. It runs up and down the back and protects the spinal cord, where many of the major nerves are located. It is composed of bony vertebrae which are held together by ligaments of connective tissue and separated from each other by spinal discs. At the top of the vertebral column is the skull, which surrounds and protects the brain. The bony structure of the head and face is called the skull. It consists of 22 bones. The main parts are the cranium and the facial skeleton with the movable lower jaw bone (mandible) which enables man to talk and eat. The

main bones of the face are the mandible, two upper jaw bones, two malar, two nasal, two lacrimal, two palate bones. All of these bones except the mandible are closely knit together.

Attached to the vertebral column below the neck are the 12 pairs of ribs, comprising the rib cage. At the bottom is the sacrum, which connects the vertebral column to the pelvis. Bones are united by joints and held together by ligaments. Muscles are special fibrous tissues found throughout the body. They control movement and many organic functions by contracting in response to nerve signals. Skeletal muscles are called voluntary because they can be consciously controlled. They are attached to bones by tough fibrous tissues called tendons. Other muscles, such as the stomach muscles and the heart, are involuntary and are operated automatically by the central nervous system.

Healthy muscles are said to have good muscle tone. Not all muscles are healthy, however, for various ailments may affect them. An inflammation of a tendon (tendonitis), of the protective sac at a joint (bursitis), or of a muscle itself (myositis) may occur. When a muscle becomes fatigued, it sometimes contracts violently and painfully. This condition is known as *cramping*. Too much strenuous activity may produce a *strain*.

VOCABULARY EXERCISES

Exercise 1. Give English equivalents to the following words.

опорно-двигательная система, обогащенная кислородом кровь, костный мозг, плотная оболочка, защищать позвоночный столб, в ответ, сознательно, центральная нервная система, здоровые мышцы, поражать (болезненным процессом), воспаление, с трудом и болезненно.

Exercise 2. Make up sentences of your own using the following words and phrases.

science of the structure, to be called, bones and muscles, as strong as steel, to be composed of minerals, organic matter and water, red blood cells, facial skeleton, movable lower jaw bone, to talk and eat

Exercise 3. Match the half-sentences in column A with the half - sentences in column B to make correct and complete sentences.

A

1. The human body is...
2. The musculoskeletal system...
3. One of the major systems...
4. Bones are composed of...
5. A major bone structure in the body...
6. At the top of the vertebral column...
7. Bones are united by.
8. Muscles control.

B

1. .joints and held together by ligaments.
2. .minerals, organic matter, and water, held together by collagen.

3. .gives form to the body.
4. .movement and many organic functions.
5. .a remarkably complex and efficient machine.
6. .is the vertebral (spinal) column.
7. .is the musculoskeletal system.
8. .is the skull, which surrounds and protects the brain.

Exercise 4. Answer the questions to the text ^Musculoskeletal System*.

1. What is the human body?
2. What is the skeleton?
3. How many bones does the skeleton consist of?
4. What is the major bone structure in the body?
5. Where is the skull situated?
6. What is the hardest tissue in the body?
7. What bones of the face do you know?
8. What are some important functions of the skeleton?
9. What is a bone composed of?
10. Which tissues enable the body to move?
11. What is the difference between muscles and tendons?
12. What is the function of the muscles?
13. What is anatomy?

Exercise 5. Fill in the blanks with suitable words from the active vocabulary.

1. Healthy muscles are said to have_.

2. Too much strenuous activity may produce_.
3. Skeletal muscles are called_ because they can be consciously
4. At the bottom is the_, which connects the vertebral column to the_.
5. All of these bones except the_ are closely knit together.
6. The bony structure of the_ and_ is called the skull.

Exercise 6. Read and translate into Russian the text «Skull» and do the exercise that follow it.

SKULL

Skull is the skeleton of the head and face, which is made up of 22 bones. It can be divided into the cranium, which encloses the brain, and the face including the lower jaw (mandible). The cranium consists of eight bones. The frontal, two parietals, occipital, and two temporals form the vault of the skull (calvaria) and are made up of two thin layers of compact bone separated by a layer of spongy bone. The remaining bones of the cranium - the sphenoid and ethmoid - form part of its base. The 14 bones that make up the face are the nasals, lacrimals, inferior nasal conchae, maxillae, zygomatics, and palatines (two of each), the vomer, and the mandible. All the bones of the skull except the mandible are connected to each other by immovable joints. The skull contains cavities for the eyes and nose and a large opening at its base (foramen magnum) through which the spinal cord passes.

Find the English equivalents in the text to the words and word combinations below:

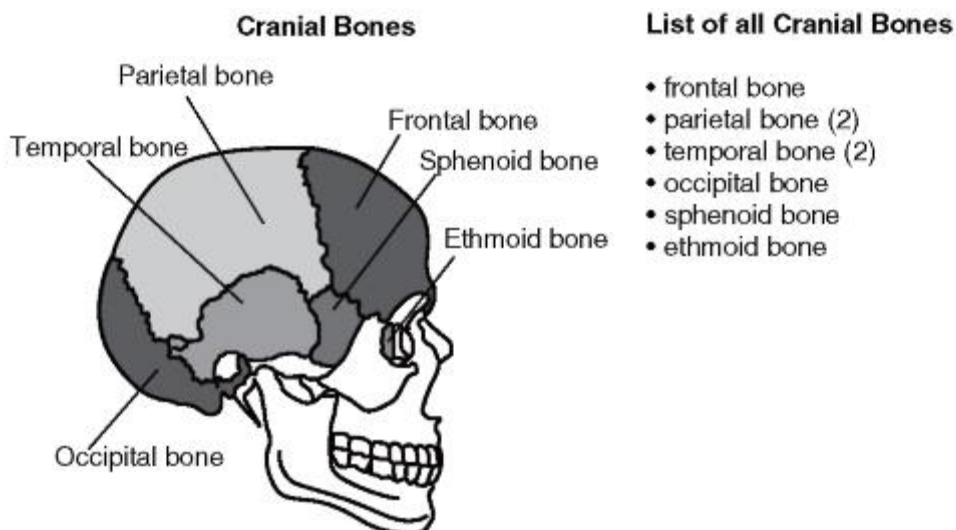
скелет головы и лица, закрывать (защищать) мозг, состоять из, включая нижнюю челюсть, плотная (твердая) кость, губчатая (пористая) кость, за

исключением нижней челюсти, неподвижный сустав, полости для глаз и носа.

Exercise 7. Read and translate the following text into Russian. Below are detailed diagrams of the skull bones (cranial and facial bones). Learn the names of the bones and skull bones anatomy through the skull bones diagrams.

SKULL BONES. CRANIAL AND FACIAL BONES

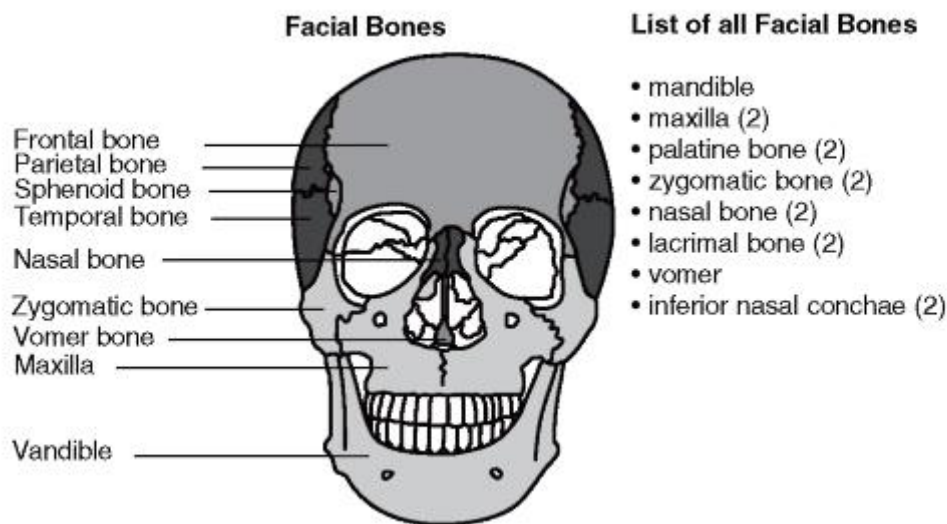
The human skull, scientifically known as the cranium, consists of 22 bones. The skull can be broken into two regions, the cranial section and the facial section. The cranial bones consist of the bones in the top of the skull while the facial bones consist of the bones that make up your face. The skull's primary functions are protection of the brain and support of the face. In the skull, sinuses can be found. Although the function of these cavities is still not definitively known, it may be that the sinuses' function is decreasing the weight of the skull while maintaining strength.



Exercise 8. Translate the following sentences into Russian.

1. The human body is a remarkably complex and efficient machine.
2. The science of the structure of complicated «machine» is called anatomy.

3. Bones are as strong as steel but much lighter and more flexible.
4. Healthy muscles are said to have good muscle tone.
5. Too much strenuous activity may produce a strain.
6. Human anatomy is the study of the structure and organs of the human body.
7. System is a group of structures or organs related to each other and working together to perform certain functions.



8. Muscle is a tissue composed of fibers that shorten by contraction to produce movement.
9. Tendon is a fibrous connective tissue that attaches muscles to bones and to other muscles.
10. All the bones of the skull except the mandible are connected to each other by immovable joints.
11. The skull primary functions are protection of the brain and support of the face.

Exercise 9. Before reading the text ^Cardiovascular (Circulatory) System* learn the active vocabulary to it.

blood vessels - кровеносные сосуды

cardiovascular system - сердечно-сосудистая система chamber - полость (камера) сердца

contraction of the heart - сокращение сердца heartbeat - сердцебиение

myocardial tissue - ткань, относящаяся к сердечной мышце

pH balance - физиологический баланс

process of circulation - процесс кровообращения

pulmonary veins - легочные вены

to distribute - распределять, распространять

to pump the blood - посылать кровь (по кровеносным сосудам)

Exercise 10. Read and translate into Russian the following text and answer the questions.

CARDIOVASCULAR (CIRCULATORY) SYSTEM

The cardiovascular system is sometimes also referred to as the circulatory system, although they are not quite the same thing. The term cardiovascular speaks to the two parts of the system: *cardio* meaning heart and *vascular* meaning vessels.

Anatomically, the major structures are the heart and blood vessels (arteries, veins, capillaries), but it is difficult to think of this system without including reference to the lungs (part of the respiratory system). The main function of the cardiovascular system is to distribute blood through blood vessels throughout the body. The main function of the heart is to pump the blood (to function as the engine of the cardiovascular system), beginning the process of circulation.

The heart consists of myocardial tissue and is divided into four chambers: two atria and two ventricles. The left and right atria are the two upper chambers of the heart, the left and right ventricles the two lower chambers. Blood that is high in oxygen (oxygenated) flows into the left atrium from the lungs through the pul-

monary veins. The left atrium then contracts to pump a supply of blood to the left ventricle. The aorta is found in the left ventricle. It branches into a complex series of arteries that bring oxygenated blood to all of the organs of the body. When the blood reaches the capillaries, it delivers oxygen and in exchange picks up the waste product carbon dioxide to carry away through veins back to the heart. This blood in the veins empties first into the vena cava (the main vein in the human body), which then carries it to the right side of the heart. Next, this blood is pumped through the pulmonary artery to the lungs where it exchanges the carbon dioxide waste for a new supply of oxygen. The cycle then repeats. This cycle is powered by the contraction of the heart, which is caused by electrical impulses within the heart. The contraction of the heart is known as the heartbeat.

The circulatory system is a subsystem of the cardiovascular system. It concerns itself with blood and the function of blood, but it is difficult to think of the circulatory system without thinking about the lymphatic system. They are essential to each other. Lymph cells assist in cleansing the blood of dead cells and bacteria. Blood is the mode of transport for lymph, nutrients, hormones, electrolytes, gases (oxygen and carbon dioxide), water, and wastes to and from cells. The capillaries are the site of this exchange between the blood and the tissues that surround them. Blood also helps stabilize body temperature and the natural *pH* balance.

In summary, the cardiovascular system is most often thought of in terms of the heart, blood vessels, and the lungs. The circulatory system is most often thought of as the blood vessels, blood, lymph, and the heart.

Questions:

1. What is another name for the circulatory system?
2. What is the main function of the cardiovascular system?
3. What are the major structures of the cardiovascular system?

4. What does the heart consist of?
5. What is the main function of the heart?
6. What is a heartbeat?
7. What is the function of the circulatory system?
8. What is blood?
9. What are capillaries? Which system do they belong to?

Exercise 11. Many medical words also have a related nonmedical meaning.

Answer the following questions.

1. What is the general meaning of the word atrium? What does it mean in relation to the heart?
2. What is the general meaning of the word ventricle? What does it mean in relation to the heart?

Exercise 12. Use your active vocabulary and write a sentence or two by combining these words in a meaningful way.

men muscles injury lifting pain

relief ice heavy back

Exercise 13. Continue to explain your new vocabulary by completing the following multiple-choice questions.

1. Choose the best answer to describe the function of the musculoskeletal system.

It

- a) helps you stand up;
- b) allows you to walk;
- c) supports the skeleton;

d) allows you to stretch.

2. Pathologic fractures occur as a result of

a) diseases or conditions that cause bones to break spontaneously without an injury or trauma;

b) brain disease;

c) old age;

d) sickness.

3. A complete head-to-toe assessment begins, of course, at the patient's head. It will include

a) general appearance;

b) level of consciousness;

c) disorientation;

d) both (a) and (b) are correct;

e) all of the above.

4. The head-to-toe assessment is designed to

a) systematically assess the patient's physical status;

b) systematically observe the patient;

c) systematically assess postoperative distress;

d) none of the above;

e) only (a) and (b).

5. The head-to-toe assessment includes the following.

a) objective reports and data collected by nurses;

- b) objective and subjective assessments by nurse and patient;
- c) subjective reports from patient and family members;
- d) none of the above.

GRAMMAR EXERCISES

Exercise 1. Put the verb in the correct form, simple or continuous.

1. These patients_(wait) for you downstairs.
2. Dr. Smith_(speak) on the phone with his patient.
3. Nurses always_(help) the doctors to perform an operation.
4. Dr. Black_(speak) three languages.
5. Good nurses_(look) after sick patients very attentively.
6. Maria is in Britain at the moment. She_(learn) English.
7. I always_(go) to bed before midnight.
8. John isn't lazy. He_(work) very hard most of the time to learn anatomy.
9. My English_(improve) slowly. It's not bad.
10. Can you hear those people? What_they_(talk) about?
11. I_(think) of giving up my job at Surgery Department.
12. I_(see) the dentist tomorrow morning.
13. I used to drink a lot of coffee but these days I_(prefer) tea.
14. I knew Kate was very busy, so I_(disturb) her.
15. It was a funny situation but nobody_(laugh).
16. I was in a hurry, so I_(have) time to phone you.

17. Jane_(wait) for me when I_(arrive).

18. We were in a very difficult position. We_(know) what to do.

19. I_(walk) home when I met Dave.

Exercise 2. Translate the following sentences into Russian. Determine the tense forms of the predicates.

1. Please, don't make so much noise. I'm working.

2. Let's go out. It isn't raining any more.

3. Vegetarians don't eat meat.

4. It takes me an hour to get to work. How long does it take you?

5. Don't put the dictionary away. I'm using it.

6. She told me her name but I don't remember it now.

7. The bed was very uncomfortable. I didn't sleep well.

8. I haven't seen Sue for ages. When I last saw her, she was trying to find a job in London.

9. When I was young, I wanted to be a dentist.

Exercise 3. Translate the sentences into Russian paying attention to the Participle I.

1. Hypertension is a wide spread disorder affecting people of all ages.

2. The doctor performing the operation is a well known surgeon.

3. The land stretching away to the left belongs to Dr. Black.

4. The students attending the lecture of anatomy decided to go to dissecting-room.

5. The man operating the equipment was dressed in protective clothing.

6. The girl waiting for the bus is my sister.

7. The eye hospital has recently obtained new equipment allowing far more patients to be treated.

8. I ran through the crowd of people hurrying to get to work.

SPEECH EXERCISES

Exercise 1. Read the text ^Musculoskeletal System* again, and then, without looking into it, complete the phrases.

1. One of the major system is the s_-m_system.
2. Bones are as s_as s_but much lighter and more f
3. A major bone s_in the body is the v_c_.
4. At the top of the vertebral column is the s_.
5. Bones are united by j_and held together by l_.
6. M_are special fibrous t_found throughout the body.
7. The main bones of the face are the m_, two upper j_bones, two m_, two n_, two l_, two p_bones.

Exercise 2. Read the text ^Skeletal System* and summarise it using the introductory phrases.

SKELETAL SYSTEM

The skeleton comprises the first part of the musculoskeletal system - the bones. There are 206 bones in the human body and they comprise the skeleton. The skeletal system is responsible for supporting the weight of the body, for posture, and for gait. Muscles comprise the second part of the system. They are responsible for most body movements. There are three main types of muscle - skeletal, smooth, and cardiac. Skeletal muscles are sometimes called striated muscles because of their striped appearance when seen under the microscope. They attach to bones of

the skeleton and are under voluntary control. This allows us to engage in physical activities such as walking, running, smiling, winking, and grasping. Skeletal muscles also allow us to manipulate things like holding a pencil or buttoning a shirt. Smooth muscles comprise the walls of organs such as the liver, spleen, and kidneys. They are responsible for the transport of nutrients and other materials through the body. Smooth muscles are not under voluntary control. We cannot make them work. Cardiac muscle is also involuntary. This

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The text deals with...

It is said that...

I'd like to note...

In addition I'd like to mention that...

Summing it up...

It may be concluded that...

Exercise 3. Read and translate into Russian the text without a dictionary.

Summarise it.

Man's skeleton was formed more than million years ago. The skeleton is a tower of bones knit together by joints so that man can run, jump and bend. 206 bones protect the vital organs from injuries. The skeleton performs functions of support, movement and protection. The supporting function consists in supporting all the organs and giving the body a definite form and position. The skeleton, together with the muscles, constitute the motive apparatus.

The human skeleton may be divided into the skeleton of the trunk, upper extremities, lower extremities and the skull.

The bony part of the head is called the cranium or skull. The skull has a cavity which contains the brain. The bones of the skull form the mouth and nasal cavities. In the mouth cavity there are accessory organs of the digestive system.

Exercise 4. Mark each statement below T (true) or F (false). Correct the statements that are false.

1. The skeletal-muscular system converts digestible food to energy and disposes of the rest.
2. The red marrow produces the white blood cells used to transport oxygen throughout the body.
3. The most important muscle in the body is the heart.
4. Hemoglobin is a protein found in white blood cells.
5. Capillaries are secretions which help with the digestion of food.
6. The pulse is a measure of the heartbeat.
7. The vertebral column is composed of a number of flexible dentrites (отростки).
8. The heart contracts at an average rate of 18 times per minute.

Exercise 5. Speak on the following.

1. Components of the Musculoskeletal System.
2. Skull Bones.

3. Heart of the Human Body. Structure and Functions.

Lesson 4

Nervous System. Gastrointestinal System.

Respiratory System. Grammar: Continuous Tenses (Revision).

Participle I (Revision)

Exercise 1. Find the pronunciation of the following words in the dictionary and translate them.

neurological, subsystem, peripheral, stem, synapse, psychological, esophagus, absorption, pharynx, fluid, respiratory, pulmonary, larynx, bronchi, alveoli, sternum, diaphragm, bacteria, mucous, phlegm

Exercise 2. Active vocabulary. Learn the following words.

accessory organs - дополнительные (вспомогательные)

органы

breath - дыхание, вдох

bronchus (pl. bronchi) - бронх, бронхи

cell nucleus - ядродержащая клетка

central nervous system - центральная нервная система

cognitive capacity - мыслительная активность (действие)

digestive system - пищеварительная система

frontal lobe - лобная доля

hemisphere - полушарие

intercostal muscles - межреберные мышцы

lobe - доля, долька

mastication - жевание, разжевывание (пищи)

motor nerve - двигательный (центробежный) нерв

occipital lobe - затылочная доля

parietal lobe - теменная доля peripheral nervous system - периферическая нервная система

pulmonary capacity - жизненная емкость легких

sensory nerve - чувствительный (центростремительный)

нерв

temporal lobe - височная доля

to accommodate - вмещать

to be essential to - быть обязательным, необходимым

to be surrounded by - быть окруженным чем-либо

to contract - сокращать (ся)

to divide - делить, классифицировать, подразделять

to expand - расширять

to expel waste materials - выводить продукты отхода (распада)

to facilitate - помогать, содействовать, способствовать

to ingest - глотать, проглатывать

to line - выстилать (внутри)

to release - высвобождать, избавлять

Exercise 3. Translate the following word combinations before reading the text.

brain stem function, sensory input, the capacity of the human brain, act in moral and ethical way, recognition of auditory stimuli, to transport food, healthy nutrients, to expel waste materials and toxins, the core of the system, to break down sugars, to be located adjacent to, to look like large pink sponges, to accommodate a sufficient intake of air, a slippery membrane, a bony cage, a bell-shaped sheet of muscle

Exercise 4. Read and translate the following texts into Russian.

NERVOUS SYSTEM

The neurological system is commonly referred to as the nervous system. It directs all body systems and cells and is responsible for all thought, emotion, sensation, and movement. The nervous system consists of two major subsystems: the central nervous system and the peripheral nervous system. The brain is the center of both.

The central nervous system is most often referred to as the CNS. It consists of the brain, brain stem, and spinal cord. The spinal cord and brain stem function as

communication pathways between the brain and the peripheral nervous system. The peripheral nervous system can be divided into several subdivisions.

All the organs of the nervous system are composed of neurons, or nerve cells. Neurons contain a cell nucleus and dendrites and axons. Dendrites receive impulses from the sensory organs, such as the eyes and ears, and from other neurons and transmit them to the central nervous system. The central nervous system (either the brain or spinal cord) responds to this sensory input, sending impulses through the axons out to the body organs. The gap between sensory, intermediate, and motor nerves is referred to as a synapse.

The human brain is essential to our ability to function in life. The capacity of the human brain is what sets us apart from other living things. Biological, psychological, emotional, creative, spiritual, and social functioning all arise from the brain. The «mind» is the cognitive capacity of the brain to think, problem solve, reflect, create, imagine, remember, and act in social, moral, and ethical ways.

The brain is divided into two hemispheres and four lobes. The two hemispheres of the brain are most commonly identified simply by their location of left or right.

The four lobes are the frontal, occipital, temporal, and parietal. The temporal lobes are responsible for memory, perception, and recognition of auditory stimuli. The ability to receive and understand speech is located within the left temporal lobe. The right temporal lobe concerns itself with memory for sounds and shapes. The parietal lobe is situated just under the bony skull cap.

GASTROINTESTINAL SYSTEM

The digestive system, which extends from the mouth to the anus, is responsible for receiving food, breaking it down into nutrients (a process called digestion), absorbing the nutrients into the bloodstream, and eliminating the undigestible parts of food from the body. The digestive tract consists of the mouth, throat, esophagus, stomach, small intestine, large intestine, rectum, and anus. The digestive system also includes organs that lie outside the digestive tract: the pancreas, the liver, and the gallbladder.

The gastrointestinal system, often abbreviated as the GI system, is also known as the digestive system. The terms are completely interchangeable. They refer to a system designed to ingest and transport food so that digestion can occur. The system's main function is to provide the body with healthy nutrients and provide

means to expel waste materials and toxins. This occurs through a series of processes: ingestion, digestion, metabolism, absorption, and elimination. The alimentary canal forms the core of the system. A 28-foot long tract, it begins at the lips and proceeds through to the anus. It is composed of eight organs: the mouth, pharynx, esophagus, stomach, small intestine (and all associated glands), the large intestines (colon), rectum, and the anal canal and anus.

When an object or fluid is placed in the mouth, the first process, ingestion, begins. Ingestion means taking a fluid, material, or substance into the body and swallowing it. Chewing (mastication) breaks larger pieces of solid materials into smaller pieces. Digestion also begins in the mouth when enzymes released by the salivary glands begin to break down sugars and other carbohydrates. The ingested material then passes the pharynx and enters the esophagus. Next, it travels downward through the alimentary canal to the stomach.

The stomach begins to process its contents within the first 20 minutes of receiving food, fluid, and any other matter/substance. That material is broken down, metabolized, and formed into new substances, which are then passed along to the small intestine. Accessory organs such as the liver and pancreas are located adjacent to (near to) the GI system. They supply enzymes and hormones that further facilitate digestion and metabolism of the ingested material.

It generally takes up to 6 hours for digestion to occur. During this process, solid products of digestion are transported into the small intestine. By the end of a 6-12 hour period, most of the ingested, digested material should have passed into the colon (large intestine). In summary, the main functions of the GI tract are ingestion, digestion, metabolism, absorption, and defecation.

RESPIRATORY SYSTEM

The respiratory system begins with the nose and mouth and continues through airways to the lungs. The lungs, the largest parts of the respiratory system, look like large pink sponges that almost fill the chest. The left lung is a little smaller than the right lung. Each lung is divided into sections (lobes): three in the right lung and two in the left. The ability of the lung to accommodate a sufficient intake of air is known as pulmonary capacity.

Air enters the respiratory system through the nose and mouth and passes down the throat (pharynx) and through the voice box (larynx).

The largest airway is the windpipe (trachea), which branches into two smaller airways (bronchi) to supply the two lungs. The bronchi themselves divide many

times before evolving into smaller airways (bronchioles). The airways look like an upside-down tree, which is why this part of the respiratory system is often called the bronchial tree.

At the end of each bronchiole are dozens of bubble-shaped, air-filled cavities (alveoli) that resemble bunches of grapes. Each lung contains millions of alveoli, and each alveolus is surrounded by a dense network of capillaries. The pleura is a slippery membrane that helps the lungs move smoothly during each breath. It covers the lungs and comes back around to line the inside of the chest wall.

The lungs and other organs in the chest are protected by a bony cage, which is formed by the breastbone (sternum), ribs, and spine.

The intercostal muscles, which lie between the ribs, help move the rib cage and thus assist in breathing. The most important muscle used for breathing is the diaphragm, a bell-shaped sheet of muscle that separates the lungs from the abdomen. When the diaphragm contracts, it increases the size of the chest cavity and thus expands the lungs.

The respiratory system has its own capacity to protect itself from toxins, viruses, bacteria, and other disease-causing agents. This is accomplished through the system's ability to secrete mucous. It is the system's most significant protective mechanism. Phlegm, on the other hand, is a sticky secretion of mucous that originates only in the lungs.

VOCABULARY EXERCISES

Exercise 1. Learn the name of the inner organs of the human body.

alveole (pl. alveoli) - альвеола (альвеолы)

anus - анус

brain - мозг

brain stem - ствол мозга

breastbone (sternum) - грудина

bronchiole - бронхиола

chest - грудная клетка

diaphragm - диафрагма

esophagus - пищевод

gallbladder - желчный пузырь
hemisphere - полушарие
large intestine (colon) - толстая кишка
larynx - гортань
liver - печень
lobe - доля
lungs - легкие
mouth cavity - полость рта
neuron - нейрон, нервная клетка
pancreas - поджелудочная железа
rectum - прямая кишка
ribs - ребра
small intestine - тонкая кишка
spinal cord - позвоночный столб
spleen - селезенка
stomach - желудок
throat (pharynx) - горло
trachea - трахея

Exercise 2. Give the English equivalents to the following words.

отвечать за мысли, эмоции и движение, состоять из двух главных подсистем, функция ствола мозга, посылать импульсы, мыслительная активность, обеспечивать организм здоровым питанием, пищеварительный тракт, дыхательные пути легких, дыхательная система, в форме пузырька (воздуха), напоминать гроздь винограда, увеличиваться в размере

Exercise 3. Match the half-sentences in column A with the half-sentences in column B to make correct and complete sentences.

A

1. The nervous system consists of..

2. The human brain is...
3. The two hemispheres of the brain are...
4. The temporal lobes are...
5. The digestive system is...
6. The main function of the digestive system is...
7. Accessory organs supply...
8. The bronchi themselves divide.
9. The pleura is.
10. The intercostal muscles help...
11. The respiratory system has its own capacity...

B

1. . to provide the body with healthy nutrients and provide means to expel waste materials and toxins.
2. . move the rib cage and thus assist in breathing.
3. ... responsible for memory and recognition of auditory stimuli.
4. . to protect itself from toxins, viruses, bacteria, and other diseasecausing agents.
5. . the central nervous system and the peripheral nervous system.
6. ... most commonly identified simply by their location of left and right.
7. . a slippery membrane that helps the lungs move smoothly during each breath.
8. . essential to our ability to function in life.
9. ... enzymes and hormones that further facilitate digestion.
10. . responsible for receiving food, breaking it down into nutrients and eliminating the undigestible parts of food from the body.
11. ... many times before evolving into smaller airways.

Exercise 4. Answer the questions to the text «Nervous System*».

1. What is the medical term for the nervous system?
2. According to the text, what directs all body systems and cells?
3. What does CNS stand for?

4. How many major subsystems are in the nervous system?
5. How are messages relayed from the brain to the body?
6. What's another word for neuron?
7. What is the most important function of the brain?
8. Where is the ability to understand speech located?

Exercise 5. Read and translate into Russian the text «Pain and Headaches* and do an exercise that follows it.

PAIN AND HEADACHES

Pain, pain reception, and response are key elements of the neurological system. Pain is perceived by specialized nerve cells called pain receptors. The message is then relayed to the brain where a decision is made regarding the appropriate response. For example, in response to burning a finger, we may move our finger instantaneously out and away from the flame. However, not all pain occurs externally. Indeed, headaches are the most commonly known form of internal pain experienced.

Headaches are often the result of stress, but they can also be triggered by external stimuli such as injury to the head, sudden exposure to bright lights, many hours under fluorescent lighting, certain foods and smells, and a myriad of other causes. People describe their headache signs and symptoms with the following descriptors: dizziness, spinning, pounding, hammering, mild, excruciating, and dull. They can usually locate the pain, as well. Headaches are usually of short duration. When suffering from a headache, people often appear cranky, impatient, and irritable. The condition brings with it a decrease in frustration tolerance, or the decreased capacity to tolerate frustration.

One type of headache is a migraine. Migraines are severe and can be quite disabling. They are caused by a constriction of the blood vessels in the occipital area and down into the neck. This decrease in blood flow is experienced as throbbing pain usually felt at first on only one side of the head. Other symptoms include heightened sensitivity and intolerance to light and sound. During a migraine headache, frustration intolerance can be significantly increased. The sufferer may be irritable and unapproachable. It is important for the health-care professional to remember that the migraine sufferer is focused on his or her internal pain. They should not take the client's brusque or unfriendly attitude as personal in any way.

While migraines may need medical and pharmacological intervention, headaches in general do not. Over-the-counter analgesics, changes in one's day or in one's lifestyle to decrease tension, relaxation techniques, balanced nutrition, rest, and exercise can all positively affect resolution of the headache. Pain scales are the method of diagnosing the severity or degree of pain.

Think about and answer the following questions:

1. Does all pain occur externally?
2. What is a migraine?
3. What is the difference between a headache and a migraine?
4. What is a pain scale?
5. What is frustration intolerance?

Exercise 6. Answer the following questions to the texts [^]Gastrointestinal System* and [^]Respiratory System*.

1. What is another name for the digestive system?
2. What is the main function of the gastrointestinal system?
3. What is the difference between digestion and ingestion?
4. What is the difference between nutrients and waste?
5. How long does the entire process of digestion take?
6. How long is the alimentary canal?
7. What does the digestive system consist of?
8. Where does stomach lie?
9. What is the elementary canal composed of?
10. Where does the respiratory system begin?
11. What is pulmonary capacity?
12. What are the largest parts of the respiratory system?
13. What is the main function of the respiratory system?
14. What is pleura?
15. What is the diaphragm? What does it do?
16. Which system does windpipe belong to?

Exercise 7. Translate the following sentences into Russian.

1. The nervous system is responsible for all thought, emotion, sensation, and movement.
2. All the organs of the nervous system are composed of nerve cells.
3. The human brain is essential to our ability to function in life.
4. While migraines may need medical and pharmacological intervention, headaches in general do not.
5. When an object or fluid is placed in the mouth, the first process, ingestion, begins.
6. Accessory organs such as the liver and pancreas are located adjacent to the GI system.
7. The lungs look like large pink sponges that almost fill the chest.
8. The pleura is a slippery membrane that helps the lungs move smoothly during each breath.
9. When the diaphragm contracts, it increases the size of the chest cavity and thus expands the lungs.

Exercise 8. Underline the correct word or phrase to complete each sentence.

1. Skeletal muscles allow us
 - a) to distribute blood through blood vessels;
 - b) to manipulate things like holding a pencil.
2. The aorta is found
 - a) in the left ventricle;
 - b) in the right ventricle.
3. The central nervous system consist of
 - a) muscles, tendons, ligaments, and other components of joints;
 - b) the brain, brain stem, and spinal cord.
4. The ability to receive and understand speech is located within
 - a) the right temporal lobe;
 - b) the left temporal lobe.

5. Headaches are often the result of

a) stress;

b) pain.

6. The main function of digestive system is to provide the body with

a) blood;

b) healthy nutrients.

7. The lungs look like

a) small black sponges;

b) large pink sponges.

8. Each lung contains millions of

a) alveoli;

b) bronchi.

Exercise 9. Use your active vocabulary and write a sentence or two by combining these words in a meaningful way.

burning a finger move out and away the flame people describe symptoms headache

GRAMMAR EXERCISES

Exercise 1. Put the verb in the correct form, simple or continuous.

1. You can turn off the television. I_(watch) it.

2. Last night Andy_(fall) asleep while he_(read).

3. Listen! Somebody_(play) the piano.

4. Yesterday evening the phone_(ring) three times while we
_(have) dinner.

5. Ann was busy when we_(go) to see her yesterday. She
(study) for an exam, so we(stay) very long.

6. We decided not to go out because it_(rain) quite hard.

7. I_(go) to London next weekend for a wedding. My sister
_(get) married.

8. I wonder where we_(live) ten years from now?
9. What do you plan to do when you_(finish) your course at medical college?
10. Even though Sarah says she's feeling better, I think she_still_(lose) weight.
11. She only just_(recover) from the operation and still_(find) it difficult to move about. At the moment she_(spend) most of her time in bed.
12. I_(hear) a lot of good reports about your work these days.
13. I_(begin) to realise how difficult it is to be a doctor.
14. My head_(ache) again, so I went home.
15. Sue_(work) in a restaurant when she_(live) in London.
16. He_(work) hard all his life.
17. Did you know that Bob and Ann_(go) to get married?
18. She_(make) a speech at the conference next week.
19. I still_(not feel) well, so I think I_(go) to see the doctor some time this week.

Exercise 2. Translate the following sentences into Russian. Determine the tense forms of the predicates.

1. What I am saying is that you are doing well in your job.
2. Frank collects stamps in his spare time. It's his hobby.
3. She has an important project to finish by next week, so she is working in the evenings at present.
4. What's the matter with Bill? He looks / is looking awful.
5. It is costing us a fortune at the moment to send our son to medical school.
6. When Helen was in hospital, we were visiting her twice a week (or we visited).
7. Helen broke her leg while she was skiing in Switzerland.

8. Whenever I called in on Sam, he was talking on the phone.
9. The weather was so good last summer that we went / were going to the beach most weekends.
10. I'm not feeling well. In fact, I think I'm going to be sick.
11. People are going to live / will live longer in the future.
12. I have to get up early tomorrow. I'm teaching a Histology class at 9.00 in the morning.
13. Before I apply for the job, I'm going to get more information about it.

Exercise 3. Translate the sentences into Russian paying attention to the Participle I.

1. People suffering from this disease are easily cured now.
2. People running a temperature should stay in bed.
3. What is the name of the doctor examining the patient?
4. She is looking at the boy playing in the park.
5. The doctor examining the patient's oral cavity was an experienced dentist.
6. I saw him preparing for an exam in Histology.
7. The doctor asked questions looking at the patient very attentively.
8. He stood at the door speaking with someone.
9. I saw him operating on the patient.
10. The patient feeling better, the doctor left.
11. All the participants taking part in the discussion were the students from our group.
12. Listening to the patient's complaints, the physician was writing something down.
13. Knowing the English language well, we can translate scientific articles without a dictionary.
14. Having plenty of time, we decided to walk to the hospital.
15. The student knowing anatomy well, the exam didn't last long.

Exercise 4. Translate the sentences from Russian into English.

1. Он обычно так быстро говорит, что я его не понимаю.

2. Кто-то стучит в дверь. Откройте, пожалуйста.
3. Я окончила школу медсестер, когда мне было 20 лет.
4. Доктор кивнул головой и пошел в операционную.
5. Он посмотрел на дом с того места, где стоял.
6. Мы как раз говорили о нем, когда он вдруг вошел.
7. Вы были очень заняты, когда я видел вас 2 дня тому назад. Что вы делали?
8. Нам нужно вернуться в 8 часов. Кейт будет ждать нас в библиотеке.
9. Я бы очень хотел пойти в кино, но боюсь, что в это время завтра я буду сдавать экзамен.
10. Интересно, что мы будем делать через год и будем ли еще встречаться друг с другом.
11. Вы сегодня пойдете на лекцию по анатомии?
12. Кто-нибудь читает эту лекцию по анатомии? Я хочу ее взять и прочитать.

SPEECH EXERCISES

Exercise 1. Read the text «Pain and Headaches* again, and then, without looking into it, complete the phrases.

1. Headaches are often the r_of s_.
2. One type of h_is a m_.
3. Migraines are s_and can be quite d_.
4. The s_may be i_and u_.
5. It is important for the health-care professional to r_that the migraine s_is focused on his or her i_p_.

Exercise 2. Read the text «Lung cancer and Demographics* and translate it into Russian without a dictionary. Summarise it.

9. I saw him operating on the patient.
10. The patient feeling better, the doctor left.
11. All the participants taking part in the discussion were the students from our group.

12. Listening to the patient's complaints, the physician was writing something down.

13. Knowing the English language well, we can translate scientific articles without a dictionary.

14. Having plenty of time, we decided to walk to the hospital.

15. The student knowing anatomy well, the exam didn't last long.

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5. Он посмотрел на дом с того места, где стоял.

6. Мы как раз говорили о нем, когда он вдруг вошел.

7. Вы были очень заняты, когда я видел вас 2 дня тому назад. Что вы делали?

8. Нам нужно вернуться в 8 часов. Кейт будет ждать нас в библиотеке.

9. Я бы очень хотел пойти в кино, но боюсь, что в это время завтра я буду сдавать экзамен.

10. Интересно, что мы будем делать через год и будем ли еще встречаться друг с другом.

11. Вы сегодня пойдете на лекцию по анатомии?

12. Кто-нибудь читает эту лекцию по анатомии? Я хочу ее взять и прочитать.

SPEECH EXERCISES

Exercise 1. Read the text «Pain and Headaches* again, and then, without looking into it, complete the phrases.

1. Headaches are often the r_of s_.

2. One type of h_is a m_.

3. Migraines are s_and can be quite d_.

4. The s_may be i_and u_.

5. It is important for the health-care professional to r_ that the migraine s_is focused on his or her i_p_.

Exercise 2. Read the text «Lung cancer and Demographics* and translate it into Russian without a dictionary. Summarise it.

LUNG CANCER AND DEMOGRAPHICS

Lung cancer is a pathological disease of abnormal cell growth in the tissues of the lungs.

In the Western world, men and women are being diagnosed with this horrific disease at equal rates. While the vast majority of cases of lung cancer are related to cigarette smoking, other causes are air pollution, exposure to asbestos or radon, and exposure to cigarette smoke. Early diagnosis and detection are essential if lives are to be saved.

The proper medical terminology for cancer is carcinoma. Small-cell carcinoma is the most frequent type of lung cancer diagnosed. Cancer cells are assessed to determine if they are malignant or benign. A diagnosis of lung cancer is not a death sentence. Progress in treating the disease with surgery, chemotherapy, and radiation have saved and prolonged lives. As yet, however there is no guaranteed cure.

Exercise 3. Read the text ^Respiratory System* again and summarise it using the following introductory phrases.

The text opens the idea of.

I'd like to stress that...

According to the text.

I'd like to add that.

I want to sum up that.

In conclusion it is necessary to say.

Exercise 4. Learn the definitions of the following special terms «Major Systems of the Body*.

Cardiovascular (circulatory) system - the system that carries blood to various parts of the body. It consists of the heart, blood vessels, and lymphatic system.

Digestive system - all the organs and glands involved in the ingestion and digestion of food, from the mouth to the anus.

Endocrine system - the ductless glands that produce internal secretions and secrete these directly into the blood or lymph and circulate it to all body parts. These glands include the thyroid, parathyroid, adrenal cortex, adrenal medulla, anterior pituitary, posterior pituitary, testes, and ovaries.

Integumentary system - the skin (the largest organ in the body) and its associated structures, including hair, nails, and sweat and sebaceous glands.

Nervous system - a system of nerve cells including the brain, cranial nerves, spinal cord, spinal nerves, autonomic ganglia, and other nerves that handle the functions of reception of and response to stimuli. The nervous system regulates and coordinates bodily activities and enables the body to adjust to external and internal changes.

Reproductive system - the system that enables human beings to have offspring. The male reproductive (genital) organs are mostly external and include the penis, the scrotum, and two testicles (testes) contained in the scrotum. The female sex organs are internal and include the vagina (with its opening covered by folds of skin called the *vulva*), the uterus, fallopian tubes, and ovaries.

Respiratory system - the system that brings oxygen into the body and removes carbon dioxide. This process, called breathing, involves two acts: inspiration and expiration. The organs of this system are the nose, tonsils, pharynx, bronchi, pleura, and lungs.

Musculoskeletal system - the system that protects and supports the internal organs and also helps the body move. The skeleton has 206 named bones including the skull, vertebral column, ribs, and the bones of the legs, hips, and shoulders. Surrounding the bones and soft organs of the body are more than 650 muscles.

Urinary system - the system that removes urea and other waste materials from the body in a liquid called *urine*. These waste materials come from the cells, go into the bloodstream, and then travel through the kidneys, ureters, bladder, urethra, and out of the body.

Exercise 5. Mark each statement below T (true) or F (false). Correct the statements that are false.

1. Lung cancer is the most commonly diagnosed form of cancer.
2. Smoking increases a person's risk of getting lung cancer in 20 times.

3. A known risk factor for cancer is smoking marijuana.
4. If a doctor suspects lung cancer, the first diagnostic step is to have an X-ray made.
5. Bronchi are part of the skeleton.
6. Oxygen is breathed into the body during inspiration, and carbon dioxide is released during expiration.
7. Liquid wastes are passed out of the body through the rectum.
8. Scientists know what can cause all types of cancer.
9. Having a positive reaction to a TB test is good news for the patient.

Exercise 6. Fill in the blanks with the words from the text ^Gastrointestinal System*.

1. The digestive system is responsible for_, breaking it down
2. The digestive tract consist of_.
3. The system's main function is_.
4. The alimentary canal forms_.
5. When an object or fluid is placed in the mouth, the process of_
begins.
6. Chewing breaks_into smaller pieces.
7. The main functions of the GI tract are ingestion,_.

Exercise 7. Speak on the following.

1. What are the steps, from first to last, in the processes of the gastrointestinal system?
2. The Human Brain. Capacity and Structure.
3. Components of the Respiratory System.

Unit III. HUMAN TEETH. ERUPTION OF TEETH

Lesson 5

Structure and Functions of Teeth. Grammar: Participle II. Present Perfect

Exercise 1. Group the words according to the rules of reading.

human, upper, use, set, produce; structure, function, cut, incisor, third, during, accessory, flat, part, wisdom, care, serve, tore, premolar, first, system, hard

Exercise 2. Active vocabulary. Learn the following words.

a sharp edge - острый край

adult - взрослый

bicuspid - премоляр, малый коренной зуб

bony substance - костное вещество

bulk - основная масса

canine - клык

cement, cementum - цемент

chamber - камера

chisel-shaped - долотообразный

crown - коронка

cusp - острый кончик зуба; бугорок

cuspid - клык

dental tissue - зубная ткань

dentine, dentin - дентин

enamel - эмаль

eye-tooth - верхний клык, глазной зуб

foramen - отверстие

gum - десна

identical - идентичный, одинаковый

incisor - резец

lower jaw - нижняя челюсть

molar - моляр, большой коренной зуб

neck - шейка

peg-shaped - клиновидный

periodontal membrane - периодонт

premolar - премоляр, малый коренной зуб

pulp - пульпа

root - корень

root canal - корневой канал

saliva - слюна

shape - форма

socket - ячейка

tip - кончик

to chew - жевать

to cut (cut, cut) - резать, разрезать

to grind (ground, ground) - молоть, дробить, истирать

to maintain - поддерживать, сохранять, содержать

to mash - дробить, размять

to occur - случаться, происходить

to refer to - сослаться, направлять, относиться к

to shred (shredded; - рвать, крошить, измельчать shredded)

to tear (tore, torn) - разрывать

tooth (pl. teeth) - зуб (зубы)

tubercle - бугорок

upper jaw - верхняя челюсть

wisdom tooth - зуб мудрости

Exercise 3. Translate the following word combinations into Russian before reading the text.

matching teeth, on either side, resemblance to the pointing fangs of dogs, raw and unprocessed food, flat teeth with pronounced cusps, the most vigorous chewing, extra chewing and grinding power, to aid speech, to maintain the position of the jaws, embedded in the jaw, encased in cement, not quite as hard, pronounced cusps

Exercise 4. Read and translate the following text into Russian.

STRUCTURE AND FUNCTIONS OF TEETH

Adult humans typically have 32 teeth - 16 in the upper and 16 in the lower jaw. Teeth on the right side of each jaw are usually identical to the teeth on the left side.

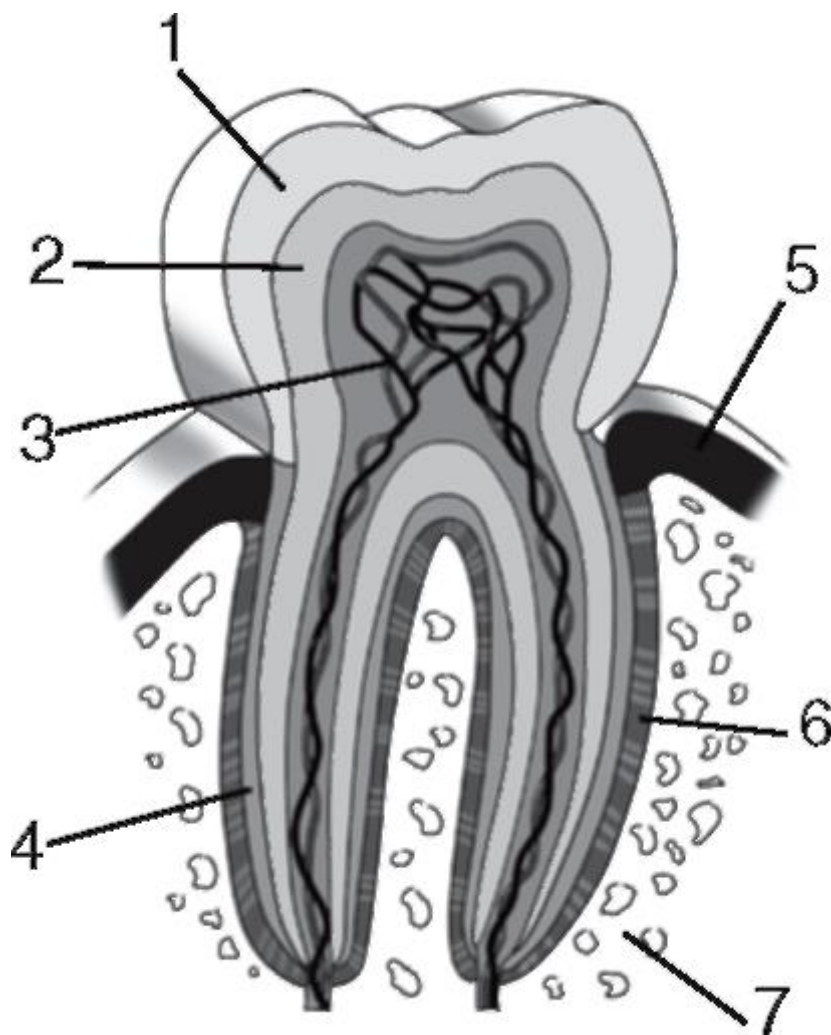
Humans have four types of teeth, each with a specific size, shape and function. Adult humans have eight incisors, located at the front of the mouth - four in the upper and four in the lower jaw. Incisors have a sharp edge that is used to cut food. Next to incisors are canines (cuspids), named so for their resemblance to the pointing fangs of dogs. The upper canines are sometimes called eyeteeth. There are two canines in each jaw, and their primary role is to tear and shred food.

Next to canines are bicuspid, or premolars, flat teeth with pronounced cusps that grind and mash food. There are four bicuspid in each jaw. After bicuspid come molars with most vigorous chewing function. There are three sets of molars in each jaw referred to as the first, second and third molars. The third molars are often called wisdom teeth. They developed thousands of years ago when human diets consisted of mostly raw and unprocessed food that required extra chewing and grinding power. Today wisdom teeth are not needed for chewing.

So, the functions of the teeth are obvious: to chew food and mix it with saliva, to aid speech, and to maintain the position of the jaws. The teeth are part of the digestive system.

Each tooth is divided into a crown above the level of the gum, a neck, surrounded by the gum, and a root or roots embedded in the jaw. The crowns are chisel-shaped in incisor teeth, peg-shaped in canine teeth, have two tubercles in premolar teeth and several tubercles in molar teeth.

The crown of each tooth is covered with dental enamel, the hardest substance of the body. The roots are encased in cement, not quite as hard. Inside enamel and cement is somewhat softer bony substance called dentin, which is the bulk of the tooth. Dentin surrounds the pulp chamber, where nerves and



Internal Tooth Anatomy

- 1 - tooth enamel
- 2 - dentin
- 3 - dental pulp
- 4 - cementum
- 5 - gums
- 6 - periodontal ligament
- 7 - alveolar bone

blood vessels of the tooth are located. Blood vessels and nerves enter the tooth through a foramen at the tip of each root. The pulp of the tooth is one of the most sensitive structures of the body. The nerves and blood vessels run up or down through narrow channels, called root canals. Covering the roots of the tooth is the periodontal membrane, which holds the tooth in its socket in the jaw and takes up some of the shock of chewing.

PARTS OF A TOOTH

External Tooth Anatomy

CROWN

is the visible part of a tooth, above the gums.

ROOT

is the part of a tooth under the gums and inside the alveolar bone.

NECK

is the area between the tooth crown and the root.

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

челюсть, на правой стороне, особый размер, форма, резцы, острый край, разрезать, клыки, сходство, заостренные собачьи клыки, разрывать, премоляры, моляры, с каждой стороны, острый край зуба, перемалывать пищу, жевание, зуб мудрости, сырая еда, слюна, коронка, шейка, десна, корень, бугорок, эмаль, основная масса зуба

Exercise 2. State the part of speech of the following words and translate them into Russian.

life, to live, living; to connect, connecting, connected, connective; a nerve, nervous; a group, to group; to digest, digestive, digestion; to cover, covered, covering, cover; to resemble, resemblance, resembled, resembling; to pronounce, pronounced, pronunciation, pronouncing

Exercise 3. Complete the sentences using words from the active vocabulary. The first letters are given to help you.

1. The p... is in the center of the t...
2. C.. is one of the tissues that support the t.. in the j...
3. I... are t... in the very front of the mouth, they c... food.
4. C... have very long r..., they t... food.
5. P. are located just behind c. t., they g. and m. food into smaller pieces.
6. M... are the last t... toward the back of the mouth.

7. The r. are different in different types of t.
8. The jawbones are covered with a tissue known as the g.
9. A tooth consists of three parts - the c..., the n... and the r...
10. The outer covering consists of a very hard s... - e...

GRAMMAR EXERCISES

Exercise 1. Give the 4 forms of the following verbs and translate them into Russian.

to compose, to hold, to produce, to use, to divide, to pump, to cover, to put, to say.

Exercise 2. Translate the sentences into Russian paying attention to the Past Participle.

1. In the adult most of the skeleton consists of bone tissue, composed of osteocytes.
2. The amount of genetic information held within a set of human chromosomes is very large.
3. Insulin is a hormone produced by the pancreas.
4. Teeth are a set of bones in the mouth used to chew food.
5. Palate is the roof of the mouth, divided into hard palate in front and soft palate behind the back teeth.
6. The skull is the skeleton of the head composed of bones.
7. Blood is the fluid pumped by the heart to all parts of the body.
8. The articles included covered new trends in science.
9. Some of the questions put to the lecturer yesterday were very important.
10. The word said by the student was not correct.

Exercise 3. Put the verbs in brackets in correct forms.

1. Everything (to write) here is quite right.
2. Incisors are the teeth (to locate) at the front of the mouth.
3. The third molars (to call) wisdom teeth are not needed for chewing.
4. The pulp chamber, (to surround) by dentin, contains nerves and blood vessels.
5. The root (to encase) in cement is the part of a tooth under the gums.

6. The crown (to cover) with enamel is the hardest substance in the human body.
7. The lecture (to deliver) by the professor was interesting.
8. Read the (to translate) sentences once more.
9. The (to operate) children felt well.
10. (To pump) by the heart through the arteries, veins and capillaries, blood carries oxygen to all cells.

Exercise 4. Translate the following sentences into Russian. Make them interrogative and negative.

1. My friend has passed his examinations.
2. I have heard much about her.
3. I have had dinner already.
4. The dentist has just come.
5. He has already told me about it.
6. I have met him since then.
7. I have already learned anatomy.
8. I have given up smoking.
9. I have bought a new textbook.
10. My mother has got a new job.

Exercise 5. Complete the sentences with verbs given in brackets. Use the Present Perfect Tense.

1. Is he still preparing his homework? No, he (to finish).
2. I (to translate) a difficult text from English into Russian.
3. We (to enter) the room.
4. They (to go) out.
5. He (to lose) his key.
6. You (to buy) a new car.
7. It (to stop) snowing.
8. She (to have) a bath.

9. I (to cut) my finger.

10. He (to see) his dentist.

SPEECH EXERCISES

Exercise 1. Review the text ^Structure and Functions of Teeth* and answer the following questions.

1. How many teeth do adults have?
2. How are matching teeth on opposite sides referred to?
3. Are teeth on the right side of the jaw identical to the teeth on the left side?
4. What types of human teeth are there?
5. Where are incisors located?
6. What is the function of incisors?
7. Where are canines (cuspids) located?
8. What is their primary role?
9. Where are premolars (bicuspid) located?
10. Where are molars located?
11. What is the function of premolars and molars?
12. How many sets of molars are there in each jaw?
13. How are third molars often called?
14. Are teeth part of the digestive system?
15. What parts is each tooth divided into?
16. What is the shape of the crowns in incisor teeth (canine teeth, premolar teeth, molar teeth)?
17. What dental tissues are there?
18. What is the hardest substance in the body?
19. Which tissue composes the bulk of the tooth?
20. In what tissue are the roots encased?
21. What is the most sensitive structure of the body?
22. What is the function of the periodontal membrane?

Exercise 2. Agree or disagree with the following statements using the phrases.

That's quite right.

I'm afraid I can't agree with you.

1. Adult humans have 20 teeth, 5 on each side of the upper and the lower jaw.
2. Humans have 4 types of teeth.
3. The lower canines are sometimes called eyeteeth.
4. There are 4 canines in each jaw.
5. Bicuspids are flat teeth with pronounced cusps.
6. The function of premolars is to cut food.
7. Each tooth is divided into the following parts: a crown, a neck and a root.
8. There are 3 dental tissues - enamel, dentine and cement.
9. The pulp chamber contains vessels and nerves.
10. Periodontal membrane holds the tooth in its socket.

Exercise 3. Speak about a) the types of teeth; b) the structure of a tooth; c) dental tissues.

Exercise 4. Explain how you understand the following.

The tongue is not steel, yet it cuts.

Lesson 6

Eruption of Teeth. Grammar: Past Perfect. Future Perfect

Exercise 1. Read and translate the following words and state what part of speech they belong to.

to erupt, erupted, erupts, eruption, erupting; to bite, a bite, bit, bitten; loose, to loosen, looseness, loosely; to lose, lost, loss, loser, losing

Exercise 2. Active vocabulary. Learn the following words:

a bite (occlusion) - прикус

a set - ряд, комплект, смена (зубов)

crooked - изогнутый, кривой

crowded - скученный

deciduous teeth - выпадающие, молочные зубы

dental arch - зубная дуга

dentition - образование зубов; прорезывание;

зубной ряд

eruption - прорезывание

impacted - ретинированный (о зубе), с затрудненным прорезыванием

keystone - основа, краеугольный камень malocclusion (faulty bite) -
неправильный прикус

permanent teeth - постоянные зубы

rate - скорость, темп, частота

replace - замещать

to come in - прорезываться

to come through - прорезываться

to delay - задерживать, отсрочивать

to dissolve - рассасываться

to erupt - прорезываться

to extract - удалять (зуб)

to fall out - выпадать

to loosen - расшатываться

tooth bud - зубной зачаток

Exercise 3. Translate the following word combinations into Russian before reading the text.

both baby and permanent teeth, fairly early, embryonic life, the first deciduous tooth to erupt, a full set of teeth, the shape of the face, irregular dental arch, to chew food, to preserve a proper bite (occlusion), to suffer from malocclusion, correct development, at the rate of, late teens, may have to be extracted

Exercise 4. Read and translate the following text into Russian.

ERUPTION OF TEETH

Humans develop two sets of teeth during their lives. The first set of teeth are deciduous teeth, 20 small teeth also known as baby teeth or milk teeth. Both baby and permanent teeth grow out of tooth buds that were laid down under gums fairly early in embryonic life (before birth). Baby's «first tooth» usually erupts above the gum line when he is about 6 months of age. The first deciduous tooth to erupt is one of the incisors. An infant usually has his full set of 20 deciduous teeth by the time he is 2 or 2½ years old.

Deciduous teeth influence the shape of the mouth and face. When baby teeth are lost too early the permanent teeth underlying them may erupt in an unnatural position and form a crowded or otherwise irregular dental arch. Furthermore, the child needs a good set of deciduous teeth to chew his food properly and to preserve a proper bite (occlusion) between the upper and lower jaws. Many children suffer from some degree of malocclusion (faulty bite).

So, primary teeth are very important as they help permanent teeth to erupt in their normal positions. When a primary tooth is ready to fall out, its root begins to dissolve. This root has completely dissolved by the time the permanent tooth below it is ready to erupt.

Children start losing baby teeth at about 6 years of age. The first adult teeth to erupt are permanent molars that come through at the back of the mouth, right after last milk molars. These four grinding teeth are extremely important for correct development of an adult dentition. They are called the «keystone of a dental arch» and will carry the main burden of chewing for many years. The eruption of permanent teeth starts around the age of 6. From then until the child becomes 12 years old all primary teeth loosen and fall out while permanent teeth come through in their place. Permanent teeth replace baby teeth in the mouth at the rate of about 4 a year for 6 or 7 years.

The last teeth to erupt are «wisdom teeth» or third molars, which are usually delayed until late teens or early twenties. These teeth often come in crooked or «impacted» against second molars and may have to be extracted.

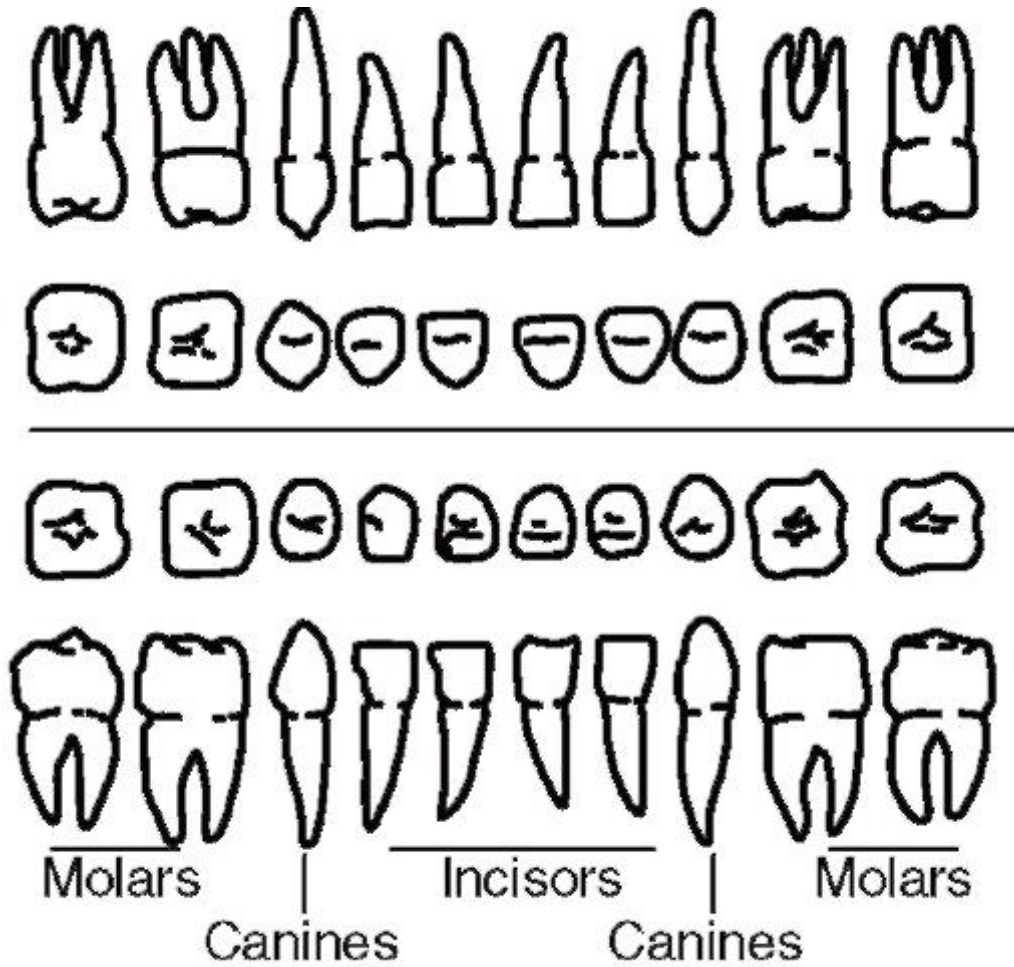
A full set of adult or permanent teeth numbers 32: 8 on each side above and below, namely: 2 incisors, 1 canine, 2 premolars and 3 molars.

TOOTH MORPHOLOGY OF PRIMARY TEETH

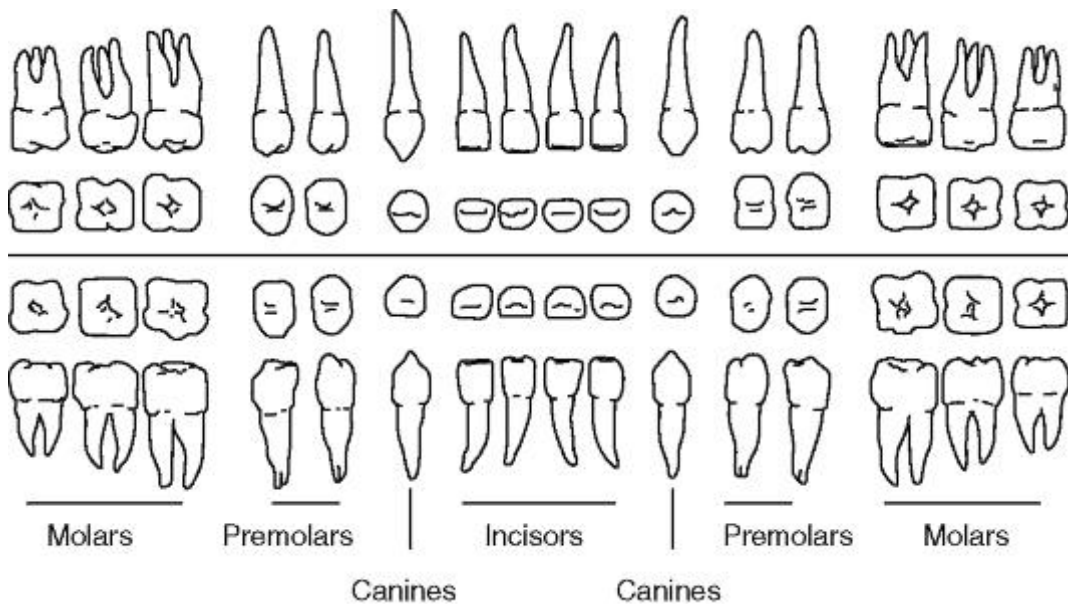
The primary teeth are 20 in number, ten in each jaw:

- 8 incisors,
- 4 canines,

•8 primary molars. Deciduous teeth of the primary dentition are smaller than teeth of the same type in the permanent dentition, but they generally resemble them in the form.



TOOTH MORPHOLOGY OF ADULT TEETH



The adult human teeth show a morphology mainly differentiated by the shape of their upper surface (crown) and the number of tooth roots. Individual tooth morphology is associated with the purpose of each tooth type (cutting, shredding or grinding the food).

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

два ряда зубов, молочные зубы, зубной зачаток, прорезывается над линией десны, форма рта и лица, неправильный прикус, кривые зубы, ретинированный зуб, скученные зубы, корень полностью рассосался, со скоростью, зубной ряд взрослых, зубы выпадают

Exercise 2. Combine the words in A with those in B.

A: to fall, faulty, to come, tooth, embryonic, dental, deciduous, milk, wisdom, adult.

B: bite, out, bud, in, arch, life, teeth, molars, tooth, dentition.

Exercise 3. State the part of speech of the following words and translate them into Russian.

to erupt, eruption, eruptive; teeth, teething; to bite, a bite, biting; to lose, lost, losing; to grind, ground, grinding; to replace, replacement; loose, to loosen

Exercise 4. Complete the sentences using words from the active vocabulary. The first letters are given to help you.

1. A human has two s... of teeth: d... and p... .
2. E. of deciduous teeth starts at six months and is completed at two years.
3. After deciduous teeth l., they are lost and replaced by permanent ones.
4. Wisdom teeth are often e. if they come in c. or i. .
5. A lot of people suffer from some kind of m... .
6. Sometimes permanent teeth may form a c. d. a. .
7. It is very important for the child to preserve a p. b. .
8. The eruption of wisdom teeth is d... until 18-25 years.
9. Deciduous teeth are replaced by permanent ones at the r... of about 4 a year.

10. The t. b. are laid down before birth.

GRAMMAR EXERCISES

Exercise 1. Read and translate the following sentences.

1. It was the best book I had ever read.
2. We called him last night but he hadn't come home yet.
3. I couldn't understand what had happened.
4. She was sure she had met him before.
5. She was late for the lecture as she had overslept.
6. I'll have finished my chemistry homework by the time you come home.
7. She will have cooked dinner by the time you get home.
8. This time next month you will have probably passed your driving test.
9. Will you have done all your homework by bedtime?
10. We won't have left by the time you come.

Exercise 2. Complete the sentences with a verb given in brackets. Use Past Perfect and Future Perfect.

1. When we arrived at the party Peter already (to go) home.
2. When we got home last night, we found that somebody (to break) into the flat.
3. She was sorry for the things that she (to do).
4. He was afraid that she already (to learn) the truth.
5. That night she was very beautiful. She never (to be) so lovely before.
6. We are late. The film (to start) by the time we get to the cinema.
7. Next year they (to be) married for 25 years.
8. Phone me after 8 o'clock. We (to finish) dinner by then.
9. By 9.15 he (to arrive) at work.
10. When you visit us, we (to move) into our new house.

Exercise 3. Translate the following sentences from Russian into English.

1. Когда мы приехали на станцию, поезд уже ушел.
2. Я вышла из дома и вспомнила, что не выключила компьютер.

3. Когда мы вошли в класс, урок уже начался.
4. Ее волосы блестели. Она только что их вымыла.
5. Когда приехала полиция, грабители уже скрылись.
6. К двум с половиной годам у ребенка прорежутся все молочные зубы.
7. Корень молочного зуба рассосется к тому времени, когда постоянный зуб будет готов прорезаться.
8. Прорезывание постоянных зубов начнется к 6 годам.
9. К понедельнику мы закончим нашу работу.
10. Приходи ко мне в 6 часов. К этому времени я сделаю домашнюю работу.

Exercise 4. Choose the correct answer.

1. I wasn't sure how she would react because I ... her for long.
 - a) didn't know;
 - b) wasn't knowing;
 - c) hadn't known;
 - d) don't know.
2. I wanted to say goodbye to Jerry, but he
 - a) was already left;
 - b) has already left;
 - c) had already left;
 - d) already left.
3. He ... his consulting room by this time tomorrow.
 - a) will leave;
 - b) will have left;
 - c) leaves;
 - d) is leaving.
4. When we got to the university I realized that I ... my student's card at home.
 - a) was left;

b) had left;

c) left;

d) was leaving.

5. All wisdom teeth . by early twenties.

a) were erupted;

b) had erupted;

c) will have erupted;

d) will erupt.

6. Jack . chess before, so I showed him how to play.

a) didn't play;

b) wasn't playing;

c) hadn't played;

d) hasn't played.

7. He normally stops working at 2 p.m. but today, I think, he . his work well before 1 p.m.

a) finishes;

b) will have finished;

c) will finish;

d) finish.

8. The child . 6 teeth by the end of this year.

a) will have;

b) will have had;

c) has;

d) is having.

9. We ... lunch by the time the lesson begins.

a) finish;

b) will finish;

- c) will have finished;
- d) finished.

SPEECH EXERCISES

Exercise 1. Answer the following questions to the text "Eruption of Teeth".

1. How many sets of teeth develop in humans?
2. What are they?
3. Which deciduous teeth are the first to arrive?
4. Why are deciduous teeth important for a child?
5. Do many children suffer from malocclusion?
6. How many teeth are there in a full set of deciduous teeth?
7. What happens with the child's teeth at the age of 6?
8. Are 6-year molars permanent teeth? Why are they very important?
9. At what rate do permanent teeth replace baby teeth in the mouth?
10. Which teeth are the last to erupt?
11. How many teeth are there in a full set of adult teeth?

Exercise 2. Speak about a) the eruption of deciduous teeth; b) the eruption of permanent teeth.

Use the following introductory phrases: The text deals with...

I'd like to note that.

I'd like to mention that.

In conclusion I'd like to say that...

Exercise 3. Explain how you understand the following.

She has a sweet tooth for chocolate cake.

UNIT IV. MOUTH CAVITY. DENTAL TISSUES

Lesson 7

Mouth Cavity. Grammar: Simple Tenses. Passive Voice

Exercise 1. Find the pronunciation of the following words in the dictionary and translate them.

pathway, boundary, primarily, tongue, ridge, swallow, mucosa, care, occupy, pyramid

Exercise 2. Active vocabulary. Learn the following words.

chewing - жевание

deglutition - глотание

dentition - ряд зубов

edge - край

insalivation - смачивание слюной

oropharynx - ротоглотка, мезофаринкс

pharyngeal cavity - гортанно-глоточная полость

respiration - дыхание

saliva - слюна

shape - форма

space - пространство

tear (tore, torn) - разрывать

to be subjected to - подвергаться

to extend - простираться

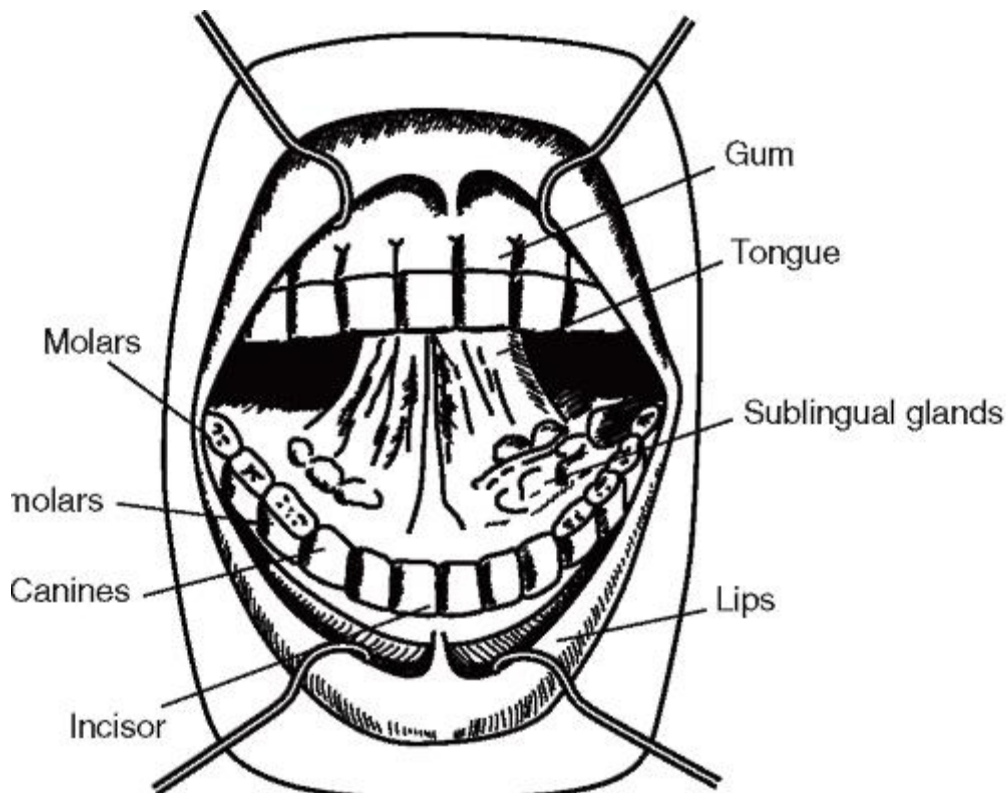
to grind (ground) - размалывать

Exercise 3. Translate the following word combinations before reading the text.

to pour saliva, prime organs, alveolar ridges, surrounding structures, normal physiological function, flat surface, beyond the level, final chewing

Exercise 4. Read and translate the following text into Russian.

THE MOUTH CAVITY



The oral (mouth) cavity is an oval-shaped cavity situated at the beginning of the alimentary canal. The oral cavity and oropharynx are spaces defined by both hard and soft tissue structures.

The shape of these two spaces changes with normal physiologic function of the surrounding structures during speech, swallowing and respiration. Functionally, the oral cavity and oropharynx are the pathway that food takes, their boundaries are the muscles that move the food. Although primarily a space through which food and air travel, several structures are found in this space including the upper and lower dentition, the tongue, salivary glands, mucosal glands, mucosal tissue covering the hard palate and alveolar ridges invested by the gum.

The oral cavity is continuous with the pharyngeal cavity, a more complex and somewhat irregular space. The mouth cavity is bounded anteriorly by the lips, laterally by the cheeks, superiorly by the hard palate and inferiorly by mucosa covering the superior surface of the tongue. The secretions of the parotid, submaxillary and sublingual glands are poured into the mouth cavity and in it food is subjected to the processes of mastication and insalivation previous to deglutition. The teeth are the prime organs of mastication, implanted in the alveolar cavities. A tooth is composed of four distinct structures:

- 1) pulp occupying the chamber in the crown;
- 2) dentine which constitutes the bulk of the organ;

- 3) enamel which forms the protection of the crown;
- 4) cementum which covers the root.

The teeth of the first dentition are termed deciduous or temporary teeth. The temporary teeth are replaced by a permanent set. The anatomical divisions of the tooth are:

- 1) the crown or exposed part situated above the gum;
- 2) the root occupying the alveolar cavity of the socket;
- 3) the neck which is between the crown and the root.

The temporary teeth are twenty in number, ten in each jaw, namely: four incisors, two canines and four molars. The permanent teeth are thirty two in number, sixteen to each jaw, namely: incisors - four, canines - two, premolars - four, molars - six. The third or last molar is called the wisdom tooth. Wisdom teeth (one at every side of the jaw) are not a different type of teeth. They erupt between the age of 17 and 21. Wisdom teeth need special care. Sometimes they do not erupt properly and they often cause dental problems because of the difficulty to clean them well enough.

The incisors or cutting teeth occupy the anterior central part of each maxillary arch. They have rather flat surfaces, a straight sharp horizontal edge for cutting and biting food and one long, single, conical root. The function of this class of teeth is to cut the food.

The canine teeth are situated next to incisors, two to each jaw. They are larger and stronger than incisors. They are characterized by large conical crowns which project beyond the level of other teeth and one single root, larger than all other human teeth types. These teeth are for tearing food.

Premolars, four to each jaw, are next to canine teeth. They have flat upper surfaces and one or two roots. Their crowns have two pyramidal eminences or cusps. They are used for chewing food.

Molars occupy the posterior part of the alveolar arch and are six on each jaw. Molars are situated at the back of the mouth cavity. They have large flat upper surfaces and two to four roots. Molars are the largest permanent teeth used for chewing and grinding (molar is the Latin for «mill»). Third molars are known as wisdom teeth.

Answer the questions to the text:

1. Where is the mouth cavity situated?
2. What sets of teeth do you know?
3. How many deciduous teeth are there on each jaw?
4. How many permanent teeth are there?
5. When does the first permanent tooth appear?
6. What place do wisdom teeth occupy on each jaw?
7. How can you characterize incisor teeth?
8. What place do incisor teeth occupy on each jaw?
9. What is the shape of canine teeth?
10. How many roots have premolars?
11. What teeth are used for chewing and grinding food?
12. What parts is a tooth divided into?

VOCABULARY EXERCISES

Exercise 1. Give English equivalents to the following words and word combinations.

овально-очерченная полость, пищеварительный канал, твердые и мягкие ткани, глотание, дыхание, разрезать пищу, первый ряд зубов, размалывать пищу, клык, зуб мудрости, плоская поверхность, бугорок, альвеолярная дуга, жевание

Exercise 2. Fill in prepositions where necessary.

1. The mouth cavity is situated at the beginning of the alimentary canal.
2. The tongue, teeth, salivary glands and alveolar ridges are in the mouth cavity.
3. The teeth are the prime organs of mastication.
4. Premolars and molars are used for chewing of food.
5. Premolars have two distinct cusps on their surfaces.
6. Canine teeth are characterized by large conical crowns.
7. The root occupies the alveolar cavity in the socket.

Exercise 3. Give the English equivalents to the following words and word combinations.

third (last) molar, temporary teeth, second dentition, back teeth, cutting teeth, anteriorly, posteriorly, deglutition

Exercise 4. Guss the meanings of the words below, paying special attention to the prefix «sub», translate the words.

cutaneous subcutaneous division subdivision group subgroup

lingual sublingual

mandibular submandibular

maxillary submaxillary

normal subnormal

structure substructure

title subtitle

GRAMMAR EXERCISES

Exercise 1. Put predicate in correct forms and translate the sentences.

1. The teeth (to implant) in the jaw bones.
2. The roots of the upper wisdom tooth (to unite) so as to form one root.
3. The food (to grind) during mastication by the teeth.
4. The secretion (to pour) by salivary glands.
5. The deciduous teeth (to lose) in childhood.
6. The canine teeth (to situate) next to the incisors.
7. The anterior central part of each maxillary arch (to occupy) by incisors.
8. The alveolar cavity of a socket (to occupy) by the root.
9. The chamber in the crown (to occupy) by pulp.

Exercise 2. State the tense and voice forms of the predicates and translate the sentences into Russian.

1. The patient will be examined shortly.
2. She was hospitalized two weeks ago.

3. The molars are most frequently affected.
4. Diseases of the teeth and oral cavity occur very frequently.
5. The food is broken by the teeth, ground into small particles, and moistened and softened by saliva.
6. All senior students will be present in the operation room at nine o'clock tomorrow morning.
7. Mastication can be considered as the first step in digestion.
8. The new technique is becoming increasingly useful in clinical diagnosis.
9. The pain in the esophagus was caused by a foreign body.
10. A physician was sent for by a boy.
11. She was prescribed penicillin intramuscularly a month ago.

Exercise 3. Put the verbs in brackets in correct forms.

1. We (to ask) to translate this passage at once.
2. There (to be) no problems in this field of dentistry in future.
3. During this period the teeth (to develop) in children's jaws.
4. The posterior part of the alveolar arch (to occupy) by molars.
5. He (to recommend) antibiotic injections until his condition improves.
6. Canine teeth (to situate) next to the incisors.
7. The Academy of Medical Sciences (to establish) in 1944.
8. Premolars and molars (to use) for chewing food.
9. This drug soon (to use) to heal small ulcers in the oral cavity.
10. Saliva itself (to have) a double function.
11. The secretions of the salivary glands (to pour) into the oral cavity.
12. Many procedures (to use) in dental clinics today.
13. Pulp (to occupy) the chamber of the crown.
14. The teeth of the first dentition (to call) deciduous teeth.
15. The jaw bones (to cover) with a tissue are known as the gum.

Exercise 4. Translate the following sentences into English.

1. Врач прописал мне лекарство от зубной боли.
2. Вчера меня вызывали в деканат.
3. В течение жизни развивается два ряда зубов.
4. Жевание считается первым шагом в пищеварении.
5. Зубы имплантированы на границах верхних и нижних костей челюсти.
6. Клыки используются для разрывания пищи.
7. Зубы - главные органы жевания.
8. Зубы мудрости прорезываются в возрасте 17-21 года.

Exercise 5. Read and translate the text without a dictionary.

The mouth is a part of the digestive system. There are the teeth, tongue, and salivary glands in the mouth. The cavity of the mouth is divided into two portions: the vestibule and the cavity proper. The vestibule of the mouth is a space bounded by the lips and cheeks. The lips and cheeks contain the mimic muscles. The oral cavity proper is bounded by the hard and soft palates. The hard palate separates the oral cavity from the nasal cavity. The mucous membrane covers the lips, and cheeks to the alveolar processes of the jaws. In the mouth the food is ground by the teeth and mixed with water, mucus and other secretions of the salivary glands. Saliva has a direct influence on the teeth and provides an optimal level of metabolic activity in the body. It consists of 99.5 percent water and 0.5 percent total solids. Its chief constituents are water, inorganic salts, mucin, serum albumen, globulin and ptyalin. Saliva dissolves some of the solid substances so that they are brought in contact with taste buds which stimulate appetite. Moistening food with saliva enables to facilitate swallowing.

There are many salivary glands in the mouth. Three principal pairs are recognized: sublingual, submaxillary, and parotids. The salivary glands regulate the water supply of the body.

SPEECH EXERCISES

Exercise 1. Answer the questions to the text "The Mouth Cavity".

1. What are the divisions of the oral cavity?
2. What organs are there in the mouth cavity?
3. What are the main organs of mastication?
4. What is the histological structure of a tooth?

5. What are the anatomical divisions of a tooth?
6. What function does each class of teeth perform?
7. What place do molars occupy? What is their form and how many roots they have?
8. What are the main constituents of saliva?
9. What functions does saliva perform?
10. What salivary glands do you know?
11. How do the secretions of salivary glands facilitate the process of food deglutition?

Exercise 2. Speak about the problems of tooth eruption, different classes, forms and functions of teeth.

Exercise 3. Mark each statement below T (true) or F (false). Correct the statements that are false.

1. The oral cavity is continuous with pharyngeal cavity.
2. Wisdom teeth are quite different from other types of teeth.
3. Incisors occupy the posterior part of the alveolar arch.
4. Saliva does not dissolve any solid substances in food.
5. Taste buds in the oral cavity stimulate appetite.
6. Saliva does not have any influence on food mastication.
7. There are three principal pairs of salivary glands in the mouth cavity: sublingual glands, submaxillary glands and parotids.

Exercise 4. Summarize the text "The Mouth Cavity" using the picture given above.

Lesson 8

Dental Tissues. Grammar: Continuous and Perfect Tenses.

Passive Voice

Exercise 1. Read and translate the following words and word combinations of Latin and Greek origin.

pharyngial, oropharynx, superior, function, process, lymph vessel, odontoblast, substance, characterize, characteristic form, gingiva material, mechanism, periodontal membrane

Exercise 2. Active vocabulary. Learn the following words.

amount - количество

attachment - прикрепление

beyond the border - ниже/выше границы

dental tissues - зубные ткани

exposed tissues - незащищенные ткани

fibrous tissues - волокнистые ткани

friction - трение

supporting tissues - поддерживающие ткани

suspensory mechanism - поддерживающий механизм

to fasten - прикреплять

to increase - увеличивать (ся)

to overlap - перекрывать

to resemble - напоминать

to surround - окружать

to swallow - глотать

to wear (wore, worn) - носить, изнашивать (ся)

Exercise 2. Read and translate the text and be ready to answer the questions given below.

HUMAN TEETH

The human teeth are made up of four tissues: enamel, dentine, cementum and pulp.

Enamel is white, compact and very hard substance. It is the hardest of all the tissues of the human body. Enamel covers the exposed parts of a softer underlying dentine. Its function is to protect the teeth against wear and friction.

Dentine or ivory is the tissue below the tooth enamel. It is the chief substance or tissue of the teeth composing the bulk and characteristic form of a tooth. It

surrounds the tooth pulp and is covered by enamel on the exposed part of the tooth and by cementum on the part implanted in the jaws. Dentine resembles a bone but is harder and denser. It supports the tooth enamel and absorbs the pressure of eating.

Dental pulp is a soft connective tissue occupying the pulp chamber and most of tooth canals. It is found in the soft center of the tooth. Dental pulp is the remain of the formative organ which has given rise to dentine.

The pulp of a tooth is composed of a number of branched fibrous network which contains nerves, blood and lymph vessels that nourish the tooth. The most superficial of these cells are arranged in the young tooth and known as odontoblasts, for they are active in the formation of dentine. Dental pulp is one of the most sensitive structures of the body and the most inner structure of a tooth. Cementum is the part of the tooth anatomy that covers dentine beyond the border of enamel, overlapping it slightly at the gingival line and forming, the surface of the root. Cementum closely resembles an ordinary bone. It begins at the neck as a very thin layer and is continued increasing in amount towards the apex which is formed entirely during life. Cementum is relatively small in amount in children but it increases during life. Cementum is as hard as bone but not as hard as the tooth enamel. Its function is to furnish the attachment to the bone of the jaw with little elastic fibers that fasten the tooth to the bone.

The internal tooth structure is common in all types of teeth, but the external parts of tooth morphology (shape of tooth crown, number and shape of roots) differ significantly between tooth types.

The human teeth are supported on the alveolar and supporting bones, the periodontal membrane and gingiva. The alveolar processes of the maxillary bones grow up around the roots of the teeth so that the roots fit into the holes in the bone and fasten the teeth.

Periodontium is the supporting structure of a tooth. It is a complex of soft and hard tissues that surround the tooth, keep it in place, feed and protect it. Periodontal tissue provides through its tactile sensory mechanisms the protection against swallowing of hard, sharp and potentially dangerous materials. It also takes part in the formation of the bone of alveolar walls and of cementum.

Gingiva is the part of mucosa which surrounds the cervical portion of a tooth. The width of gingiva tends to increase with age.

VOCABULARY EXERCISES

Exercise 1. Give English equivalents to the following words and word combinations.

соединительная ткань, пульпа, зубной канал, поверхность корня, зубная камера, покрывать, полость, сеть (сетка), эластичные волокна, периодонтальная ткань, прикреплять зуб к кости, эмаль, шейка зуба, незащищенная часть зуба, износ и трение, защищать, поддерживать ткани

Exercise 2. Give synonyms to the following words.

amount, gingiva, to nourish, to increase, chief, chewing, hard, to compose, to protect

Exercise 3. Match the words in column A with those in column B. A B

alveolar network blood organ

chief tooth

connective cells elastic body exposed fibers fibrous bone formative tissue

hard vessel

human part sensitive substance superficial structure

Exercise 4. Fill in the gaps with proper prepositions.

1. The internal tooth structure is common_all types_
the teeth.

2. The roots fit_the holes_the bone_and
fasten the teeth_the bone.

3. The cementum is relatively small_amount_children.

4. Superficial cells_the young tooth are active_the
formation_denture.

Exercise 5. Translate the following sentences from Russian into English.

1. Зубная эмаль - самая твердая ткань тела человека.

2. Эмаль защищает зубы от износа и трения.

3. Дентин является основой зуба.

4. Пульпа - это самая чувствительная ткань зуба.

5. Пульпа - это мягкая сосудистая ткань, занимающая пульпарную полость.

6. Цемент напоминает обычную кость.

7. Периодонт является поддерживающей структурой зубов.

Exercise 6. You'll come across the following words in the text «The Periodontium and Oral Mucosa». Try to learn them. Read and translate the text and be ready to answer the questions given below.

i.e. = id est (lat.) = that is - то есть, т.е.

masticatory - жевательный

palatal - нёбный

pharynx - глотка

to be located - быть расположенным

to comprise (Lat.) - составлять, включать в себя

to develop - развиваться

to grow (grew, grown) - расти, увеличиваться в размере

to include - включать

to line - выстилать

to observe - наблюдать

to separate - разделять

to support - поддерживать, служить опорой

undergo - подвергать (ся)

PERIODONTIUM AND ORAL MUCOSA

The periodontium (peri - «around», odontos - «tooth») comprises the following tissues: gingiva, periodontal ligament, root cementum and the alveolar bone. Three of the periodontal tissues, the cementum, periodontal ligament and the alveolar bone are formed by cells which are contained in the dental follicle of a developing tooth. The fourth tissue component of the periodontium, i. e. gingiva, is not developed from a dental follicle. The gingiva is, however, a tooth-related structure which grows in height with the erupting tooth.

The main function of periodontium is to attach the tooth to the bone tissue of the jaws and to maintain the integrity of the surface of masticatory mucosa of the oral cavity. The periodontium, also called «the attachment apparatus» or «the

supporting tissues of the teeth» establishes a developmental, biological and functional unit which undergoes certain changes which age.

The oral mucosa (mucous membrane) is continuous with the skin of the lips and mucosa of the soft palate and pharynx. It consists of (1) masticatory mucosa which includes the gingiva and the covering of the hard palate, (2) specialized mucosa which covers the dorsum of the tongue and (3) the remaining part, called the lining mucosa. Gingiva is that part of masticatory mucosa which covers the alveolar process and surrounds the cervical portion of the teeth.

Two parts of gingiva can be differentiated: free gingiva and attached gingiva. The free gingiva is oral pink and comprises gingival tissue at the vestibular and lingual/palatal aspect of the teeth.

The attached gingiva is often of firm texture. This type of mucosa is firmly attached to the alveolar bone and cementum by connective tissue fibers. The width of the gingiva tends to increase with increasing age. It was found that the gingiva in 40-50 years olds was significantly wider than that in 20-30 year olds.

Answer the questions to the text:

1. What does the word «periodontium» mean?
2. What tissues does periodontium comprise?
3. Are all the periodontal tissues formed by cells contained in the dental follicle?
4. Is gingiva related to the teeth?
5. What is the main function of periodontium?
6. What does the oral mucosa consist of?
7. What is gingiva?
8. What parts can be differentiated in gingiva?

Exercise 7. Find the English equivalents for the words and word combinations below in the text «Periodontium and Oral Mucosa».

связка, альвеолярный отросток, возраст, слизистая ротовой полости, включать в себя, спинка языка, слизистая выстилка, пришеечная часть зуба, различать, язычная сторона (зуба), уровень, наблюдение

Exercise 8. Make nouns from the given verbs, consult the dictionary where necessary.

to develop, to locate, to consider, to grow, to function, to attach, to describe, to use, to treat, to establish, to include

Exercise 9. Translate into Russian.

1. The pain increases with the development of the disease.
2. It is not easy to control the tumor growth.
3. Periodontium can also be called the attachment apparatus.
4. Periodontium provides support to the teeth.
5. In his book the author gave a detailed description of the disease.
6. The temperature changes were not observed.

Exercise 10. Complete the sentences using the given words.

to develop, to include, structure, to attach, to erupt, to change.

1. A tooth consists of four_.
2. It is necessary_ this information into the text-book.
3. First teeth_ when a baby is six months old.
4. Peridontium_ the teeth to the bone.
5. This disease can_ after a person has been in the cold for a long time.
6. He did not_ much during the years.

GRAMMAR EXERCISES

Exercise 1. State the voice and tense of the predicates.

1. The exposed part of dentine is covered by enamel.
2. The aching tooth was being extracted when the students came into the consulting room.
3. The pain disappeared after a drug solution had been injected into the vein.
4. To control the increasing pain the nurse has made an injection.
5. The gingival material increases in adults at over 40-50 of age.

6. The investigation of the injured jaw has been made by good specialists.
7. New buildings of clinics are being built now in our country.
8. Researches used the treatment that had not been used before.
9. He had begun to study this disease long before he made a report on it at the conference.
10. Don't make such noise! The lecture is being delivered in the next room.
11. It was decided to examine the oropharynx of the patient.

Exercise 2. Put the verbs in brackets in the correct form.

1. He (to give) the medicine for Grippe.
2. We (to ask) to translate the text without a dictionary.
3. The translation (to do) by the end of the lesson.
4. He (to offer) the post of the head manager.
5. The structure of this tissue not (to study) yet.
6. The patient (to hospitalize) tomorrow.
7. My sister (to operate on) quite recently.
8. The patient (to cup) by the nurse now.
9. Large quantities of vaccine (to prepare) to inoculate high risk groups of the population.
10. Other specialists (to confirm) our results.
11. Not many years (to pass) since the time when the science of implantology developed.
12. The pain (to increase) during last three days until the tooth was extracted.
13. He is recovering after laser therapy (to make).

Exercise 3. Translate the following sentences into English.

1. Известно, что коронка зуба покрыта эмалью.
2. Мне вчера пришло письмо.
3. Когда я ехала в автобусе, начался дождь.
4. Результаты исследования будут опубликованы к концу года.

5. Сейчас на конференции обсуждаются новые методы лечения.
6. Вы были в Лондоне? Я поеду туда летом.
7. Кто закончил перевод статьи?

Exercise 4. Change the sentences from active into passive constructions.

1. Fleming discovered penicillin.
2. The police arrested his brother.
3. A blood clot blocked the artery.
4. You should heat the solution to 25 °C.
5. His doctor recommends him not to take coffee.
6. They can treat cancer by surgery.
7. They gave the patient an injection of morphine.
8. Periodontium attaches the tooth to the bone tissue.
9. Usually, a dentist treats this disease.
10. He will inform you by a telegramme.

Exercise 5. Make up all possible questions to the following sentence.

Three of periodontal tissues are formed by cells contained in the dental follicle.

Exercise 6. In the sentences given below state the tense of the predicate. Translate the sentences.

1. Many important problems have been discussed at the meeting before lunch.
2. The question asked by you is not easy.
3. The cervical portion of the teeth is surrounded by gingiva.
4. It has been observed that free gingiva has a dull surface.
5. The patient was being examined when somebody knocked at the door.
6. The third or last molar called the wisdom tooth often does not erupt at all.
7. Take an umbrella, it is raining.
8. The temperature had changed by the evening.
9. A tooth that has been attacked by caries can become the starting point of infection.

Exercise 7. Translate the sentences from Russian into English.

1. Его попросили остаться сегодня дома.
1. Известно, что коронка зуба покрыта эмалью.
2. Мне вчера пришло письмо.
3. Когда я ехала в автобусе, начался дождь.
4. Результаты исследования будут опубликованы к концу года.
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9. A tooth that has been attacked by caries can become the starting point of infection.

Exercise 7. Translate the sentences from Russian into English.

1. Его попросили остаться сегодня дома.
2. Вы уже позавтракали? Нет, еще.
3. Ему уже сделали операцию.
4. Не входите! Больного сейчас оперируют.
5. Когда медсестра вошла в палату, больные спали.
6. Больницу еще не построили. Ее построят к февралю.

SPEECH EXERCISES

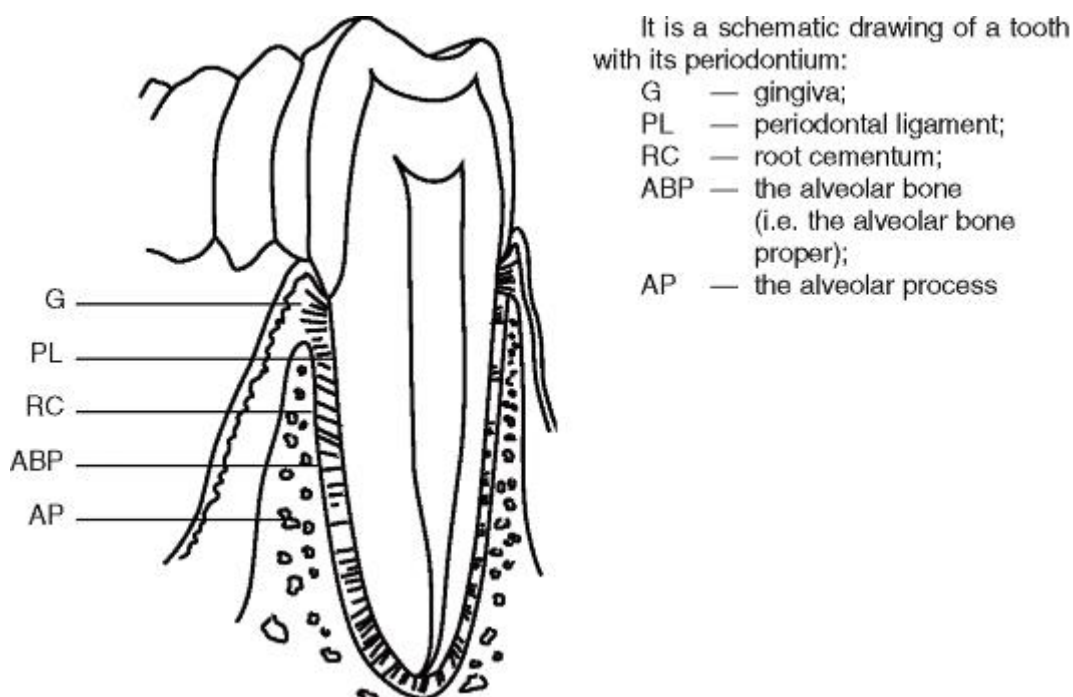
Exercise 1. Review the text and answer the following questions.

1. What dental tissue do you know?
2. What is the hardest tissue of the body?
3. What is the chief structure of the teeth?
4. What is the function of enamel?
5. What tissue composes the characteristic form of the tooth?
6. What tissue is pulp? What are its distinctive features?
7. What part of the tooth does cementum cover?
8. What can you say about the function of cementum?
9. What is the difference between the internal structure of a tooth and the external one?
10. What protection does periodontal tissue provide?

Exercise 2. Summarize the text using the word combinations.

The text deals with. This text is of use to. It is interesting to note. According to the text.

Exercise 3. Look at the picture and describe it.



Exercise 4. Speak on the following.

1. Human teeth and four tissues: enamel, dentine, cementum and pulp.
2. Supporting tissues of the human teeth.
3. Periodontium.

UNIT V. MAXILLA. MANDIBLE

Lesson 9

The Superior Maxillary Bones.

Grammar: Participles

Exercise 1. Find the pronunciation of the following words in the dictionary and translate them.

the canine fossa, the orbit, a depression, internal, external, the first bicuspid teeth, tuberosity, to perforate, to occupy, a pyramid

Exercise 2. Active vocabulary. Learn the following words.

boundary - граница

fissure - щель, фиссура

something like - подобно

the floor of the orbit - основание глазницы

the nares - носовая полость

to bound - ограничивать

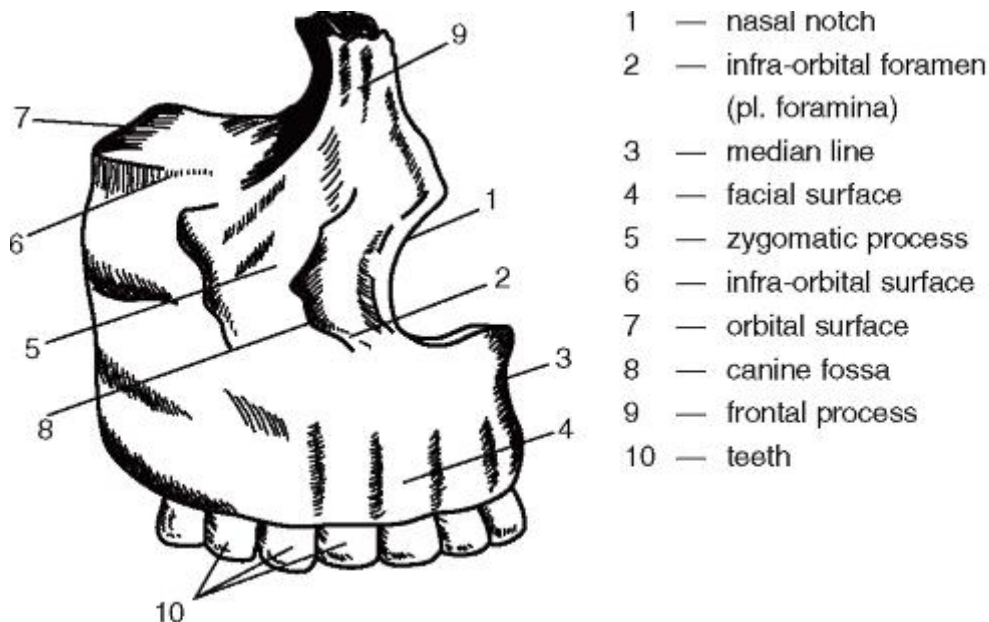
to develop - развиваться (ся)

to enter into the formation - принимать участие в формировании

to extend - простирается

to protrude - выступать, выдаваться вперед

Exercise 3. Study the picture.



Exercise 4. Read and translate into Russian the following text.

THE STRUCTURE OF THE MAXILLA

The bones of the face consisting of the mandible and the superior maxillary bones form much of the anterior portion of the face. The superior maxillary bones are closely knit together except the mandible which is movable. The superior maxillary bones, being knit together on the median line of the face, are two in number and of a very irregular form.

They occupy the anterior upper part of the face and consist of a body and processes. There are 4 processes which extend out from the body of the maxillae,

namely the frontal process, the zygomatic process the alveolar process and the palatine process.

The alveolar processes of the right and left maxillae form an arch-like shape of bone that surrounds the roots of the maxillary dental arch of teeth. The roots of the teeth are embedded in individual alveoli (tooth sockets). The shape of each alveolus naturally corresponds closely with the shape of the roots of the tooth it surrounds. Being the largest bones of the face except the mandible, the maxillary bones enter into the formation of three cavities, namely: the orbit, the mouth and the nares.

The body is the central part of the bone. The body is shaped like a four-sided hollow pyramid with the base oriented vertically next to the nasal cavity. Its apex extends laterally into part of the cheek bone (or zygomatic bone). The body exhibits four surfaces, namely: the external or facial, the posterior or zygomatic, the superior or orbital and the internal or palatine.

The facial surface is directed forwards and vertically, and the lower border is more protruded than the upper one. This surface presents a depression just above the canine and the first bicuspid teeth. It is called the canine fossa. Above the canine fossa, there is the infraorbital foramen for the nerve of the same name. The entrance to the alveolar canals, where the nerves to the maxillary teeth enter the maxilla, are very small foramina located posteriorly and superior to the third molar.

The zygomatic surface is situated posteriorly forming the anterior boundary of the zygomatic fossa. Between it and the facial surface there is a well-developed ridge extending from the molar region to the base of the zygomatic process.

The posterior surface has a bulging called tuberosity. It is connected with the palate and bounds the antrum behind. Being perforated by three or four small holes the posterior surface transmits nerves and blood vessels to the molar teeth.

The orbital surface of the maxillae forms the greater part of the floor of the orbit, where an infraorbital fissure is located.

VOCABULARY EXERCISES

Exercise 1. Give English equivalents.

углубление, быть просверленным, хорошо развитый гребень, лицевая поверхность кости, внутриглазничное отверстие, основание глазницы, небная поверхность, внутриглазничное, зубной канал, отросток, нижняя челюсть

Exercise 2. Insert the missing word from the text «The Structure of the Maxilla*.

1. The superior maxillary bones are of a very ... form.
2. The body is the ... part of the bone.
3. There is . just above the canine teeth called . .
4. There is the ... foramen for the nerve of the same name.
5. The posterior surface transmits . and . to the molar teeth.
6. The zygomatic surface forms the . .
7. The posterior surface has a bulging called . .
8. The superior maxillary bones consist of a body and
9. The bones are closely . together.
10. The facial surface is directed . and vertically.

Exercise 3. Find synonyms to the following words.

fossa, zygomatic, bicuspid teeth, shape, foramen, upper jaw, lower jaw

Exercise 4. Insert the necessary preposition into each gap.

1. The superior maxillary bones are ... an irregular form.
2. They are knit together along the median line ... the face.
3. The bones ... the face consist ... the mandible and the superior maxillary bones.
4. The superior maxillary bones are the largest bones of the face . the mandible.
5. Above the canine fossa there is an infraorbital foramen ... the nerve ... the same name.
6. The ridge extends . the molar region . the base . the zygomatic process.
7. Tuberosity is connected ... the palate bones.
8. The posterior surface is perforated . three or four small holes.
9. There is a depression just ... the canine and the first bicuspid teeth.
10. These bones enter . the formation . three cavities.

GRAMMAR EXERCISES

Exercise 1. In the following sentences find participles and determine their functions. Translate the sentences into Russian.

1. The superior maxillary bones being knit together along the median line of the face are of a very irregular form.
2. The oral cavity is separated from the nasal cavity by the hard palate.
3. Being perforated by small holes the posterior surface transmits nerves and blood vessels to the molar teeth.
4. When their teeth are erupting, babies can be irritable.
5. Being the central part of the superior maxillae, the body has four surfaces.
6. Having good knowledge of English, he could easily read articles in English and American medical journals in the original.
7. While taking a course of practical training medical students act as doctor's assistants.
8. There is a well-developed ridge between the zygomatic fossa and the facial surface.
9. Having acquired the knowledge of the structure and functions of the human body medical students can learn how to recognize diseases.
10. The dentist working at that chair is treating a patient with pulpitis.
11. Having finished our work, we could go home.
12. The lips are covered with the mucous membrane.
13. There is a depression above the canine and first premolar teeth, called the canine fossa.

Exercise 2. Choose the correct form of the Participle. Translate it.

1. A balancing / balanced diet.
2. An interesting / interested book.
3. An injuring / injured arm.
4. A breaking /broken tooth.
5. A crying / cried baby.
6. The covering / covered mucosa.
7. A writing / written exercise.
8. Disappointing / disappointed results.

9. A disappointing / disappointed patient.

10. An asked/asking question.

Exercise 3. Translate the following word combinations into English using Present and Past Participles.

врач, лечащий больного; сломанный зуб; написанное письмо; хорошо развитый гребень; выступающая нижняя челюсть, (внутренняя) сторона щеки, покрытая слизистой; поверхность, направленная вперед; поверхность, имеющая небольшие отверстия; связанные по средней линии; смешанный с водой; поверхность, расположенная сзади и образующая границу; соединенная с небными костями

Exercise 4. In the following exercise find the verbs (1) in the Passive Voice and (2) in the Continuous Tense. Translate the sentences into Russian.

1. Where is Dr. Petrov? He is in his office. He is treating a patient.
2. He knew all the patients sitting in the waiting room.
3. Canines are shaped like a peg.
4. The water supply in the body is regulated by salivary glands.
5. «Don't worry, the doctor is coming soon», the nurse told the patient.
6. He knew that he had to hurry: his patients were waiting for him.
7. The third or last molars are known as wisdom teeth.
8. The nurse came in when he was writing something in a patient's card.
9. Canines are situated next to incisors.
10. He looked attentively at the titles of the articles lying in front of him.
11. The professor was reading an article written by one of his post-graduate students.
12. He knew that the article was written not long ago.

Exercise 5. Make 4 questions to the following sentence (one general question, one question to the subject and two special questions).

The superior maxillary bones occupy the anterior upper part of the face.

SPEECH EXERCISES

Exercise 1. Answer the questions to the text «The Structure of the Maxilla» and check your answers.

1. How many superior maxillary bones are there?
2. Where are the superior maxillary bones knit together?
3. What part of the face do they occupy?
4. What do they consist of?
5. What cavities do the superior maxillary bones form?
6. What is the central part of the bone?
7. What form does the body have?
8. How many surfaces does the body of the bone have?
9. What is the canine fossa?
10. Where is the infraorbital foramen situated?
11. What is there on the posterior surface?

Exercise 2. Speak about the structure of the superior maxillary bones using the expressions given below and the words from exercise 1 in Vocabulary exercises. The text is about.

It is necessary / important to say that... I'd like to add (that)... In conclusion.

Exercise 3. Read the text «The Maxillary Bones» and answer the question: «What surface is the infraorbital groove situated in?».

THE MAXILLARY BONES

The superior maxillary bones by their union form the arch of the upper jaw and each bone presents for examination a body and four processes, e.g. zygomatic, frontal, alveolar and palatine.

The superior maxillary bones are the largest bones of the face except the mandible.

The body is the central part of the bone and has four surfaces.

The external surface is irregularly convex and has the so called «canine fossa».

The nasal surface forms the lateral boundary of the nasal cavity.

At the lower aspect of the zygomatic surface there is the «maxillary tuberosity» and the posterior dental vessels and nerves enter the bone.

The superior surface of the bone has the infraorbital groove, which, passing forwards, becomes canalized and divided into two branches, one of which terminates in the infraorbital foramen; whilst the smaller branch transmits the anterior dental nerves and vessels to the front teeth of the upper jaw.

Exercise 4. Say which statement is true or false.

1. The superior maxillary bones are the smallest bones of the face.
2. The external surface is irregularly concave.
3. At the upper aspect of the zygomatic surface there is the «maxillary tuberosity».
4. The inferior surface of the bones has the infraorbital groove.
5. The palatine surface is irregularly convex.
6. The superior surface is divided into three branches.
7. Each superior maxillary bone has a body and two processes.
8. The orbital surface forms the lateral boundary of the nasal cavity.
9. The largest branch of the superior surface transmits the anterior dental nerves and vessels to the teeth.
10. One of the branches of the superior surface terminates in the nasal cavity.

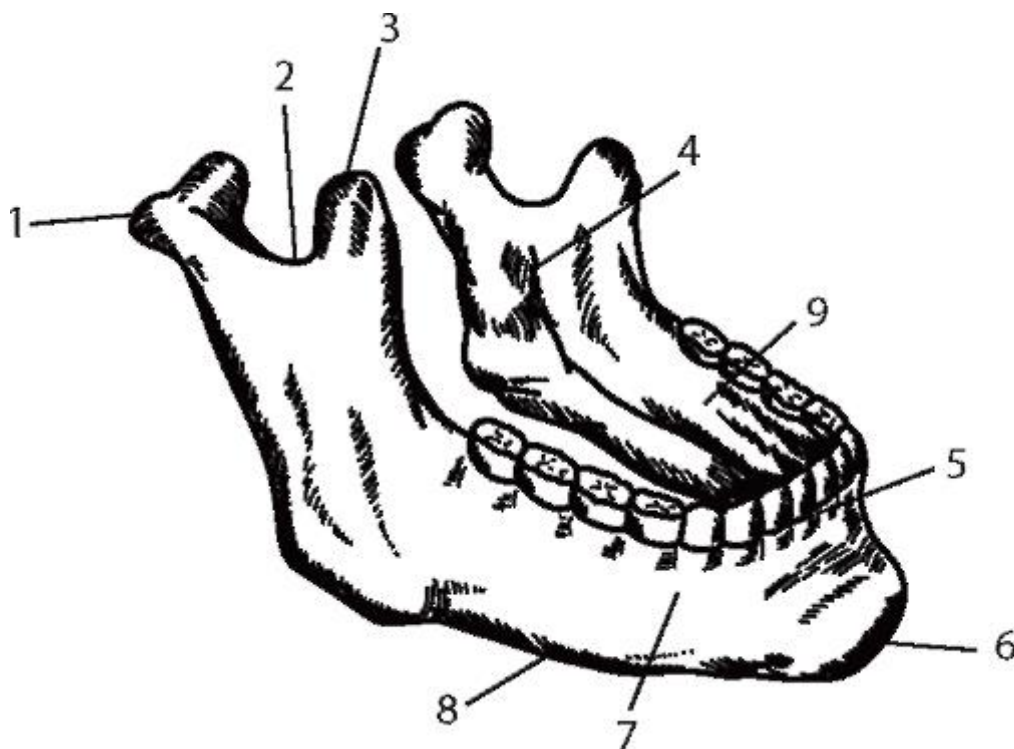
Lesson 10

The Mandible. Grammar: The Complex Subject

Exercise 1. Learn the pronunciation and meaning of the following words and word combinations before reading the text.

a pair of rami, a coronid process, a condyloid process, to surmount, a symphysis menti, an outer surface, convex, concave, junction

Exercise 2. Study the picture and remember the following expressions



- 1 - condyloid process - мышелковый отросток;
- 2 - mandibular notch - ниже-челюстная вырезка;
- 3 - coronoid process - венечный отросток;
- 4 - mandibular foramen - ниже-челюстное отверстие;
- 5 - upper border of the mandible - верхняя граница нижней челюсти;
- 6 - lower border of the mandible - нижняя граница нижней челюсти;
- 7 - mental foramen - подбородочное отверстие;
- 8 - outer surface of the mandible - внешняя поверхность нижней челюсти;
- 9 - inner surface of the mandible - внутренняя поверхность нижней челюсти.

Exercise 3. Read and translate the text into Russian and be ready to answer some questions.

THE STRUCTURE OF THE MANDIBLE

The mandible lies below the anterior part of the cranium and is the skeleton of the lower part of the face. It has the body and a pair of flat, broad rami which stand up from the posterior part of the body.

Each ramus is surmounted by two processes: the anterior is named the coronoid process, and the posterior is the condyloid one. The condyloid process has an articular part called the neck.

The right and left halves of the body of the mandible are united together in the medial plane in front. Their junction is called the symphysis menti. The halves of the mandible are joined together by fibrous tissue at birth, but they are fused together into one bone during the second year. Each half of the body of the mandible has an outer and an inner surface and an upper and a lower border. The surfaces slope so that the lower border makes a wider arch than the upper border.

The upper part is known to be called the alveolar part because it is occupied by a row of alveoli, those are the sockets for the teeth. On each side the sockets for the two incisors, the canine and two premolars are single but for the three molars they are double, for each mandibular molar has two roots: anterior and posterior. The lower border is known to be the base of the mandible. The outer surface is slightly convex, but has a depression alongside the symphysis below the incisor teeth. The mental foramen is seen on the outer surface of the mandible. The inner surface is convex and concave at different parts. There is a shallow depression called the submandibular fossa.

The mandibular foramen leads into a canal which runs in the substance of the bone and carries the vessels and nerves for the teeth.

The mandible is the only bone of the face which has movement. The temporomandibular joint is known to make a wide range of mandibular motion. This joint consists of two joints on either side of the mandible, which articulate with temporal bones on either side of the head. The mandible serves as the attachment of the elevator muscles which consist of the masseter, temporal and internal pterygoid muscles.

1. *What is the mandible?*
2. *What parts does the mandible consist of?*
3. *What part is called the alveolar one?*
4. *What bone of the face has movement?*

VOCABULARY EXERCISES

Exercise 1. Give English equivalents.

передний, задний, верхний, нижний, ветвь; отростки: венечный отросток, мышечковый отросток; наружная поверхность, внутренняя поверхность, соединение, подбородочный шов, отверстие, объединять, подъязычная ямка

Exercise 2. Read the text «The Structure of the Mandible* again and find synonyms to the following words.

A

Lower jaw, a branch, to connect, interior (surface), front teeth, a hole, to be composed of, on each side, movement, connection. B

Complete the sentences with words from the active vocabulary:

1. The ... of the two halves of the mandible is called the symphysis menti.
2. Each ... is surmounted by two processes.
3. The sockets for the . are single.
4. The mandibular . leads into a canal which carries the nerves and vessels to the teeth.
5. This joint ... of two joints on either side of the head.
6. The mandible is the only bone of the face which has
7. The halves of the mandible are . together in the median plane.
8. At birth the halves of the mandible are joined by fibrous
9. The mental ... is seen on the outer ... of the mandible.
10. There is a . on the outer surface called the submandibular fossa.

Exercise 3. Choose the necessary preposition.

1. The head of the condyloid process is supported ... a neck.
2. The rami are united together . fibrous tissue . birth.
3. The mental foramen is seen . outer surface the mandible.
4. The upper part is occupied . a row alveoli.
5. The alveoli are the sockets . the teeth.
6. The mandible has a pair . broad rami.
7. The mandibular foramen leads . a canal which carries the vessels and nerves . the teeth.
8. This joint consists . two joints . either side . the mandible.
9. The mandible serves . an attachment . the elevator muscles.

10. The broad rami stand . the posterior part of the body.

GRAMMAR EXERCISES

Exercise 1. In the following sentences from the text «The Structure of the Mandible», find the Complex Subject. Translate the sentences.

1. The upper part is known to be called the alveolar part.
2. The lower border is known to be the base of the mandible.
3. The TMJ (temporomandibular joint) is known to make a wide range of mandibular motion.
4. The mandible is known to be the only bone of the face which has movement.

Exercise 2. Translate the following sentences paying attention to the Complex Subject.

1. Cement is known to be a modified bone.
2. The symphysis is said to be the junction of the two rami.
3. The doctor is expected to come at five.
4. The great Russian physiologists Sechenov and Pavlov are known to have established the basic principles of physiology of the nervous system.
5. The first teeth to erupt are known to be incisors.
6. The ancient Romans were known to have made false teeth and even dentures from ivory.
7. Calcium is found to be essential for the development of teeth and gums.
8. Fish and milk products are considered to be sources of this mineral (calcium).
9. Sugar is thought to be an important factor in causing dental caries.
10. Dental diseases are likely to occur when the teeth are not properly brushed.
11. Wisdom teeth are unlikely to erupt before a person is fifteen years old.
12. Dental students seem to have a lot of work to do to acquire good manual skills.
13. He seems to have failed his exam in histology.

Exercise 3. Use the Complex Subject instead of a clause.

Model: It is well known that the first teeth are incisors. The first teeth are known to be incisors.

1. It is well known that teeth erupt after six month.
2. It was reported that the congress of physiologists will take place in London.
3. Centuries ago it was considered that dental caries was caused by a worm.
4. It was found that the heart makes 70 beats per minute.
5. It seemed that he knew the material well.
6. If he doesn't look better after his teeth, it is likely that he can lose some.
7. It was found that drinking tea without sugar reduces dental caries.
8. It is likely that he will come back on Tuesday.
9. It is unlikely that he has failed the exam.
10. It is considered that his report on the use of new materials in dentistry is the best.

Exercise 4. Translate the following sentences into English.

1. Нижняя челюсть является самой большой костью лица.
2. Каждая ветвь нижней челюсти увенчана двумя отростками: суставным и венечным.
3. Нижняя граница является основанием челюсти.
4. Известно, что нижняя челюсть - это единственная кость лица, которая подвижна.
5. Верхняя часть нижней челюсти называется альвеолярной частью.
6. При рождении половины нижней челюсти соединены фиброзной тканью.
7. На внешней поверхности нижней челюсти имеется углубление под резцами.
8. Внешняя поверхность нижней челюсти слегка выпуклая.
9. Ее занимает ряд альвеол.
10. Альвеолы являются, как известно, лунками для зубов.

Exercise 5. Find the sentences with the Passive Voice. Translate the sentences into Russian.

1. The temporomandibular joint is composed of two joints on either side of the head.

2. The upper part of the mandible is known to be called the alveolar part because it is occupied by a row of alveoli.
3. The students were watching their teacher preparing the patient's tooth.
4. He was really glad because he had successfully passed a difficult exam.
5. This medicine should be taken after meals.
6. This patient did not ask the doctor any questions.
7. The nurse has made injections to all patients in the ward.
8. The little boy cried when he was given an injection.
9. He was glad that he was not asked any questions.
10. New large hospitals and medical centers are built every year.
11. A tooth is protected by the enamel from wear and friction.
12. The deciduous teeth are replaced by the permanent ones.

SPEECH EXERCISES

Exercise 1. Answer the questions to the text «The Structure of the Mandible*».

1. What is this text about?
2. Where does the mandible lie?
3. What parts does the mandible consist of?
4. What is the structure of a mandibular ramus?
5. What is the junction of the two halves of the mandible called?
6. When are the halves of the mandible fused together into one bone?
7. Why is the upper called the alveolar part?
8. Why can the sockets of the teeth be single or double?
9. Where is the mental foramen situated?
10. What is the function of the mandibular foramen?
11. The mandible is the only movable bone of the face, isn't it?
12. What elevator muscles are attached to the mandible?

Exercise 2. Speak about the structure of the mandible using the words from exercise 1 in Vocabulary exercises. Begin with the sentence «I am going to speak about the structure of the mandible».

Exercise 3. Read the text and entitle it. Make three questions to the text.

Every tooth is inserted into the jaw by its root. The part of the jaw containing the teeth is known as the *alveolar process* and is covered with a soft tissue called the *gum*. The jaw bones consist of a dense outer layer known as *compact bone* and a softer interior one called *spongy bone*.

A tooth is attached to its socket in the jaw by a soft fibrous tissue called the *periodontal membrane*. This acts as a shock absorber and is attached to the cementum of the root and the compact bone lining the socket. The periodontal membrane contains nerves and blood vessels, but consists mainly of bundles of fibres which pass obliquely from cementum to bone.

Note:

spongy bone - губчатое вещество

Exercise 4. Read the dialogue and be ready:

1. To speak on behalf of the student.

2. Answer the questions:

a) What makes the mandibular motion possible?

b) What muscles produce the movement of the jaws? Teacher: What can you tell me about the supporting structures? Student: The part of the jaw containing the teeth is known as the alveolar

process. It is covered with a gum. A tooth is attached to its socket in the jaw by a soft fibrous tissue called the periodontal membrane.

Teacher: Do you know what the upper and the lower jaws are called?

Student: Yes. The upper jaw is called the maxilla and the lower is called the mandible.

Teacher: What is the hard palate?

Student: It is the part of the maxilla that forms the roof of the mouth. Teacher: Right. And is the maxilla movable?

Student: No. It is immovable. The only jaw that can move is the mandible. The temporomandibular joint allows the lower jaw to move. All the movements of the jaws are produced by the muscles of mastication.

Teacher: Thank you, your answer was very good.

UNIT VI. DENTISTRY

Lesson 11

Dentistry Today. The College of Dentistry of New York University. Grammar: Revision. English Tenses (Active and Passive). Participles (Revision)

Exercise 1. Find the pronunciation of the following words in the dictionary and translate them into Russian.

abnormality, estimate, adults, vital, community, biochemistry, gradually, prosthodontics, manufacture, orthodontics, conservation, preventive, fluoride, resin, porcelain, anesthetic, amalgam, purity

Exercise 2. Active vocabulary. Learn the following words.

dentistry - стоматология

tooth decay (caries) - кариес

to diagnose - ставить диагноз

to prevent - предотвращать

to estimate - оценивать

dentures (false teeth) - искусственные зубы

to perform - выполнять, проводить (операцию)

prosthodontics - протезирование

orthodontics - ортодонтия

conservation (fillings) - консервативное лечение (пломбирование)

oral surgery - хирургическая стоматология

to provide - обеспечивать

to involve - включать в себя, вовлекать

to carry out - выполнять, проводить

Exercise 3. Translate the following word combinations into Russian before reading the text.

a branch of medicine; one person in three; to undergo general medical training; a health problem; missing teeth; a highly-trained person; the health of the community; the chemical reactions in the body; straightening teeth; operations on the teeth; gums, jaws and other nearby parts; the structure of the mouth and teeth

Exercise 4. Read and translate the following text into Russian.

DENTISTRY TODAY

Dentistry is the branch of medicine concerned with diagnosing, preventing, and treating diseases and abnormalities of the teeth and gums. Tooth decay and gum diseases are a health problem made worse by the kinds of food we eat. It is estimated that in the United States alone, 29 million people have no teeth of their own. One person in 3 over the age of 35 needs dentures (false teeth), while half the adults over 40 have some teeth missing because of gum disease.

Until the middle of the 19th century, most dental operations were performed by travelling tooth drawers and barbers. Today the dentist, like the doctor, is a highly-trained person whose work is vital to the health of the community.

The professional training of dentists lasts several years. For the first two years, most student dentists undergo general medical training. They study subjects such as anatomy (the structure of the body), physiology (how the body works), biochemistry (the chemical reactions in the body), and also special anatomy and physiology concerning the structure of the mouth and teeth, how the teeth grow, and how they become unhealthy or diseased. Gradually they specialize in dental subjects such as prosthodontics (the use and manufacture of false teeth), orthodontics (straightening teeth), conservation (fillings), and oral surgery (operations on the teeth, gums, jaws and other nearby parts).

Notes:

draw a tooth - вырвать зуб

barber - парикмахер (мужской), цирюльник

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

стоматология, аномалия зубов и десен, искусственные зубы, взрослые люди, высококвалифицированный специалист, профессиональное обучение, проходить курс общей медицины, структура ротовой полости и зубов, больные зубы, старше 40 лет

Exercise 2. Give the synonyms to the following words.

branch, disease, tooth decay, to estimate, adults, a highly-trained person, to undergo, unhealthy, gradually

Exercise 3. Match the sentence halves.

1. Today the dentist.
2. Tooth decay and gum diseases.
3. Half the adults over 40.
4. Most dental operations.
5. The professional training of dentists.
6. They study subjects:
 - a) have some teeth missing because of gum diseases;
 - b) is a highly-trained person whose work is vital to the health of the community;
 - c) lasts several years;
 - d) are a health problem made worse by the kinds of food we eat;
 - e) such as anatomy, physiology, biochemistry and also special anatomy and physiology;
 - f) were performed by travelling tooth drawers and barbers.

GRAMMAR EXERCISES

Exercise 1. Fill in the blanks with appropriate verb forms.

1. Dental students_(to receive) their education in specialized dental schools.
2. In Russia a training course for certified dental students_(to last) five academic years.

3. Apart from general medical disciplines, the four principal divisions of dentistry_(to recognize) in curricula in Russia.
4. Entry to a dentistry department_(to depend) on the results of competitive examinations.
5. For hundreds of years people_(to believe) that tooth decay_(to cause) by a worm in the teeth.
6. Short courses_(to offer) regularly to dentists to keep them informed of the new developments in dentistry.
7. Dentistry_(to consider) well-paid and secure employment in Great Britain.
8. The study of basic medical and dental subjects_(to interconnect) closely with clinical dentistry.
9. Anatomy, biochemistry and physiology_(to study) at medical universities.
10. Before starting to work with patients in clinics, students_(to teach) the techniques on phantom heads.
11. Doctors_(to look) for new ways to help patients.
12. Medical science_(to make) a lot of progress in recent years both in treatment and diagnosis.
13. Many simple measures_(to take) to prevent dental diseases.
14. Preventive care_(to aim) at the two major tooth troubles: caries and gum diseases.
15. Preventive orthodontics_(to be) another aspect of early treatment.

Exercise 2. Translate into Russian paying attention to the Participles.

1. Tooth decay is a wide spread disease affecting all ages.
2. The X-ray examination confirmed the inflammation in the root canal.
3. The case being discussed here proves the importance of an early diagnosis of dental diseases.

4. Having been discharged from the hospital after an oral surgery the patient had to pay regular visits to the local dental clinic.
5. The prescribed medicine relieved the pain.
6. The method used helped to control the disease of the gums.
7. Dental students spend much time working on phantom heads.
8. The received findings helped the oral surgeon to perform the operation.
9. Examining the patient's oral cavity the dentist considered that the condition of his teeth was normal.

Exercise 3. Put the verb in brackets in the correct form: infinitive (with or without «to»), or -ing.

1. My family is trying _(decide) where to go on holiday.
2. I like _(go) somewhere different for a change.
3. Children are very often afraid of_(visit) a dentist.
4. We began _(discuss) possible complications of the disease.
5. He agreed _(start) the treatment as soon as possible.
6. (Eat) _a balanced diet is important for those who want to have strong and healthy teeth.
7. It is necessary _(take) this medicine after meals.
8. The dentist told me_(be) more careful when_(brush) teeth.
9. Fluoride is very important in _(prevent) caries.
10. I enjoy _(see) places I have never seen before.

Exercise 4. Underline the correct participle.

1. I've always been interesting/interested in wild life, especially elephants.
2. He said he was satisfied/satisfying with his students' progress.
3. I was horrifying/horrified to learn that we had narrowly escaped death.
4. You look confusing/confused. Haven't you understood what I'm talking about?
5. Her exam results were rather disappointing/disappointed. She has to retake the exam in September.

6. The students have to answer the following/followed questions.
7. The doctor came to the conclusion that patients who were treating/ treated with the new drug recovered much quicker.
8. Some patients who were administering/administered this medicine felt dizziness.
9. Fluoride is adding / added to drinking water as a health measure.

Exercise 5. Read and translate the text into Russian. Write out the -ing forms. Try to determine which of them are Participles I.

THE COLLEGE OF DENTISTRY OF NEWYORK UNIVERSITY

It is the third oldest and the largest private dental school in the United States. It is composed of clinics, laboratories, and other teaching facilities contained within several buildings. Since its foundation, New York University has been a private university, operating under a board of trustees.

Being founded in 1865, the New York College of Dentistry became an integral part of New York University in 1925.

A few years ago the College of Dentistry reached a decision to expand its previous three-year curriculum to a four-year curriculum. The curriculum is a synthesis of many areas of knowledge, including: biology, physics, biochemistry, medicine, surgery, biomechanics, aesthetics, manual skills and social sciences. In addition to providing the student with the biological and social basis for application of clinical skills, the educational programme focuses on prevention as a much desired goal in dental practice and research. Advances in the dental sciences and the increasing dental health needs of the public call for an understanding of general health problems and greater cooperation with other health professions.

The educational goal is to educate and train clinically competent general practitioners, well-grounded in both basic and clinical sciences, fully prepared to adapt to changes in dental care needs and ready to keep up-to-date with the developing dental knowledge.

During the first and second years, the course includes both the basic sciences and clinical sciences.

Clinical practice during the first and second years begins with a series of lectures on the dental patient aimed at preparing the student for the duties and responsibilities of everyday practice. The student learns the importance and the role of the dentist as part of the health team. During the second, and continuing

into the third and fourth years, each student is assigned patients. Duties begin with examination of the patient and end only when the patient's dental health is restored to the best possible state. The students are responsible for treatment planning, making appointments and providing dental treatment.

(Detailed information on the NYU College of Dentistry is given in Additional Material).

VOCABULARY EXERCISES

Exercise 1. Find English equivalents in the text.

частный, состоять из, Совет (попечителей), со времени его основания, составная часть, расширить, мануальные, навыки, обеспечить, применение (использование), прогресс, призывать, другие медицинские специальности, цель обучения, готовить врачей общего профиля

Exercise 2. Tell your partner what you like or what you do not like doing using -ing forms (gerunds) of the following verbs.

read, write, use (computer), play (computer games), swim, dance, watch (TV), have (long walks in the country), drive, study English

Exercise 3. Answer the following questions.

1. What is the oldest and largest dental school in the USA?
2. What is this dental school composed of?
3. Is New York University a state or private university?
4. What is the period of study at the College of Dentistry?
5. Do the students study social sciences there?
6. What does educational programme focus on?
7. What is the educational goal of this oldest dental school?
8. How is the idea of cooperation with other health professions reflected in the first and second year curricula?
9. In what way does the curriculum in the third year differ from those in the first and second years?
10. What is the aim in the fourth year?
11. When does clinical practice start? How does it begin?

12. When is a student assigned patients?
13. What are the student's duties in the course of clinical practice?
14. Who is responsible for treatment planning?
15. Why does the College place considerable emphasis on research?

SPEECH EXERCISES

Exercise 1. Read the text «Dentistry Today* again, and then, without looking into it, complete the phrases.

1. Dentistry is a branch of medicine c... with diagnosing, p... and treating dental diseases.
2. It is made worse by the k... of f... we eat.
3. 29 mln people in the USA have no teeth of t... o... .
- 4 Most dental operations w... p... by tooth drawers and barbers.
5. Today the dentist, 1... the doctor, is a h... - t... person whose work is v... to the health of the c... .
6. The professional t... of dentists 1... several years.
7. They also study special anatomy and physiology c... the structure of the mouth.
8. Prosthodontics is the m... and u... of false teeth.

Exercise 2. Review the text and answer the following questions.

1. What problems is dentistry concerned with?
2. How can food influence dental health?
3. According to the text, do people of the USA have good teeth? What about people of Russia?
4. When did the first dentists appear? Does it mean that people did not have dental problems before that? How did they manage?
5. How long does professional training of dentists last nowadays?
6. What subjects do they study?
7. Is there any specialization in dentistry?
8. What is prosthodontics?

9. Is prosthodontics the same subject as orthodontics?

Exercise 3. Summarise the text «Dentistry Today* using the following introductory phrases.

The text deals with... It is said that...

I'd like to note / to point out that... I'd like to draw your attention to the fact that... I wouldn't go into detail, but the main idea is... In addition I'd like to mention that... Summing it up...

In conclusion I'd like to say that... It may be concluded that...

UNIT VII. DISEASES OF THE TEETH AND MOUTH.CAVITY

Lesson 12

Diseases of the Teeth. Grammar: Modal Verbs and their Equivalents. Participles

Exercise 1. Practice the pronunciation of the following words.

pulpitis, primarily, oral hygiene, the whole body, adult, cause, course, character, lesion, carbohydrate, stimuli, severe, gangrene

Exercise 2. Active vocabulary. Learn the following words.

poor oral hygiene - плохая гигиена полости рта

general state of health - общее состояние здоровья

a common disease - распространенное заболевание

to suffer from - страдать (от), болеть чем-либо

consumption (syn. intake) - потребление

lesion - поражение, повреждение

to occur - иметь место, происходить

to cause - вызывать, являться причиной

severe pain - сильная боль

to spread - распространяться

to result in - приводить к, вызывать

to result from - быть результатом

due to (because of) - вследствие, из-за

to arrest a disease - купировать заболевание

Exercise 3. Translate the following word combinations into Russian before reading the text.

due to poor oral hygiene

diseases may run an acute course

to control dental caries

early treatment of carious lesions

if caries remains untreated

microorganisms can gain entrance into the pulp

mortification and removal of the pulp tissue

Exercise 4. Read and translate the following text into Russian.

DENTAL CARIES AND PULPITIS Part 1

INTRODUCTION

Diseases of the teeth develop primarily due to poor oral hygiene but the general state of health is also of some importance. Depending on the state of the whole body diseases of the teeth may run a more acute course and may quickly involve a number of teeth.

Dental caries (tooth decay) and pulpitis are probably the most common of all diseases of the highly developed countries. All groups of population can suffer from tooth decay.

The main causes of dental caries are poor oral hygiene, the character of nutrition (high consumption of sweets), the temperature of the food and physiological state of the human body. The disease begins with decalcification of the enamel and ends in destruction of the hard dental tissues. Carious lesions usually occur in those parts of the teeth that cannot be well cleaned by a toothbrush, the molars being most frequently affected.

If caries is left untreated microorganisms can gain entrance into the pulp and cause its inflammation (pulpitis). During pulpitis teeth are sensitive to chemical, mechanical and thermal stimuli. Spontaneous severe pains are the most characteristic symptom of pulpitis. The pains may spread over the jaw, ear or

temple. They may be very severe and last for a long time. Pulpitis may result in gangrene of the pulp and its decomposition.

The treatment of pulpitis must consist in mortification and removal of the pulp tissue and filling the tooth.

Part 2

DENTAL CARIES

Dental caries is a disease of the calcified tissues of the teeth caused by the action of micro-organisms on fermentable carbohydrates. It is characterized by demineralization of the mineral portion of enamel and dentine followed by disintegration of their organic material. As the disease approaches the pulp, it produces changes in the form of reactionary dentine and pulpitis (possibly giving pain), and may result in bacterial invasion and death of the pulp. The infected necrotic pulp then produces further changes in the periapical tissues.

On the other hand, the disease can be arrested in its early stages since it is possible for remineralization to occur. In addition, progress of the disease to a clinical cavity is not inevitable, and can be completely prevented by relatively simple measures.

Four factors are necessary to produce dental caries:

- dental plaque;
- a suitable carbohydrate (mainly sugar);
- a susceptible tooth surface;
- time.

Unfortunately, caries presents symptomatically at a relatively late stage. The patient may feel a 'hole in a tooth' with the tongue, brown or black discoloration or cavities may be seen, or frank pain may be suffered.

Caries, even in dentine, is not painful per se, but cavitation may occasionally cause a mild pain with sweet things or with heat or cold. Normally, the enamel and the necrotic dentine insulate the sensitive dentine and pulp from these stimuli.

However, a much more common cause of pain, which may be intense, is pulpitis (the commonest 'toothache') which occurs late in the development of a carious lesion when caries is very close to the pulp or actually exposing it.

There are four approaches to the management of caries:

- attempt to arrest the disease by preventive measures
- remove and replace the carious tissues (operative dentistry)
- a combination of these two approaches
- extract the tooth.

Early diagnosis of the carious lesion has become even more important since the realization that caries is not simply a process of demineralization, but an alternating process of destruction and repair. Saliva is an excellent remineralizing fluid and the balance can be tipped in favour of repair by modifying diet, careful use of fluoride, and removing plaque.

Notes:

disintegration - расщепление, распад

inevitable - неизбежный, неминуемый

susceptible - восприимчивый, чувствительный

insulate - изолировать, ограждать

to tip the balance - решить исход дела

Part 3 PULPITIS

Pulpitis may be painful or painless, but even the painless form may become painful in response to certain stimuli. For example, the tooth with painless pulpitis may become painful when percussed or may produce prolonged pain in response to electrical or thermal stimulation. Pulpitis may produce spontaneous pain, which may become severe.

Pulpitis does not always develop from caries. It may result from trauma, internal resorption or both. Apparently, pulpitis from caries is reversible until the pulp is invaded by microorganisms. Its reversibility then depends on the number and virulence of the organisms and on therapy. Following invasion of the pulp by microorganisms, the prognosis for prolonged pulp viability is poor.

Irreversible pulpitis continues to progress at varying rates through the pulp chamber and along the root canal. This progression leaves the contents of the pulp chamber necrotic or filled with pus and unable to respond to electrical or thermal stimuli. As the disease process passes through the apical foramina, it becomes apical periodontitis. Reversible pulpitis is treated by sedative dressings, while irreversible pulpitis is managed with endodontic therapy or extraction of the tooth.

Notes:

foramina pi. от foramen - отверстие

reversible pulpitis - обратимый пульпит

irreversible pulpitis - необратимый пульпит

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

развиваться, из-за, в зависимости от, острое течение, ряд зубов, наиболее распространенное заболевание, прежде всего, потребление сладкого, приводить к, поражать, воспаление, чувствительный, продолжаться, пломбирование зуба

Exercise 2. Find the synonyms to the following words in the text.

intake, caries, because of, a wide-spread disease, to get into the pulp, first of all, to start, to develop

Exercise 3. Fill in the blanks with suitable words from the active vocabulary.

1. Caries, pulpitis and periodontitis are ...of the mouth.
2. The patient was still in bed because his ... was bad.
3. You have three teeth with
4. Diseases of the teeth ... due to poor oral hygiene.
5. Pulpitis is ... by microorganisms that gain entrance to the pulp.
6. In case of... you should see a dentist immediately.
7. Untreated caries may ... pulpitis.
8. I... a severe toothache and had to see a dentist.

Exercise 4

A) Translate the following derivatives:

dissolve - solvent, solution, insoluble

result - resultant

severe - severely, severity

cause - causal, causative, causeless

occur - occurrence, recur, recurrence, recurrent

sense - sensation, sensibility, sensitive

B) Translate the sentences:

1. A lesion is a change in some part of the body caused by an injury or a disease.
2. The earliest clinically visible evidence of enamel caries is a white or brown spot lesion.
3. Modern dentistry states that the best way of managing caries is by prevention.
4. This substance is insoluble in water.
5. The dentist gave her an injection to reduce the sensitivity of the nerves.
6. It is the doctor's duty to relieve the patient's sufferings.
7. It was necessary to extract the causative tooth.
8. Substances which are difficult or impossible to digest are called indigestible.
9. Sensibility is explained as the ability to feel and transmit impulses, impressions, stimuli, etc.
10. Sensation is a kind of feeling as a result of a particular type of stimulation, something of which one becomes aware through the use of one's senses.

Exercise 5. Read and translate the following text and summarize it.

THE DIAGNOSTIC PROCEDURE

The diagnosis of caries requires good lighting and dry clean teeth. If heavy deposits of calculus or plaque are present, the mouth should be cleaned before attempting accurate diagnosis. Each quadrant of the mouth should be isolated in turn with cotton-wool rolls and dried with air or cotton-wool pledgets.

Sharp eyes are necessary to look for the earliest signs of disease, and vision can be enhanced by the use of magnification. Magnifying loupes can be worn on a head band or attached to spectacles. Alternatively, special glasses with telescopes attached can be used, and have the advantage that they can be made to a specific focal length to suit the particular operator. Operative dentistry can only be made easier by the use of magnification. Traditionally a sharp probe was used to detect caries in enamel either by the rough feel of early cavitation on a smooth surface, or by the probe tips wedging between the softened sides of a fissure. This was known as a «sticky fissure». However, a sharp probe can damage an incipient carious

lesion, actually causing cavitation in a lesion which might otherwise have been arrested. Further, by carrying microorganisms into the lesion a probe may facilitate the spread of the carious process. Therefore a probe should not be used in the diagnosis of enamel caries.

Vocabulary to the text:

quadrant - сектор

to enhance - усиливать, увеличивать

pledget - тампон

cotton-wool roll - круглый ватный тампон

magnification - увеличение

magnifying loupe - увеличительное стекло, лупа

accurate - точный

radiograph - рентгеновский снимок

incipient - начинающийся, начальный

deposits of calculus - твердые зубные отложения

alternatively - в качестве альтернативы

probe - зонд

to facilitate - способствовать, облегчать

operative dentistry - одонтопрепарирование, терапевтическая стоматология

Exercise 6. Give the English equivalents for.

ватный тампон; зонд; кариозное поражение на начальной стадии; участок, место; ось, внутри ротовой полости; держатель рентгеновской пленки; точный, правильный; прикрепляться к; рентгеновский луч

Exercise 7. Read and translate into Russian the following text.

OPERATIVE AND RESTORATIVE DENTISTRY

Tooth destruction can occur from dental caries (decay), attrition or abrasion, erosion and fracture. Dental caries, known more commonly as tooth decay, is the most common cause of tooth destruction. Caries (which literally means «rotten») results from the demineralization of mineralized tooth structures (that is the loss of minerals or inorganic content from enamel, dentin, and cementum).

Demineralization can be reversed if plaque is removed frequently enough through good oral hygiene measures, if sweets in the diet are limited, and minerals (especially calcium in healthy saliva and fluoride) are available for uptake (remineralization) into the porous demineralized tooth. This tug-of-war between demineralization and remineralization is constant and is the basis for prevention methods that are applied and taught by dental professionals.

Patient education and preventive treatment are important aspects of dental patient care. Prevention and treatment should be based on personalized risk-based assessment of each patient's caries history, which includes their history of fluoride use, their salivary flow rate, and the frequency of sugar uptake (especially snacks). Fluoride applied to teeth in appropriate concentrations has been shown to reduce dental caries incidence because it increases the tooth's resistance to breakdown by caries-forming acids. Therefore, caries prevention includes daily use of fluoride-containing paste and fluoride-containing mouthwashes (either prescription or over-the-counter), as well as office applied fluorides that contain higher concentrations. Further, when saliva flow is reduced (from damage to salivary glands due to radiation therapy, or as a side effect to many medications), the teeth are more susceptible to tooth decay. Artificial saliva or sugarless chewing gum could be used to alleviate this problem. Finally, snacks provide the ingredients that, with certain bacteria found in dental plaque, form acids that contribute to demineralization. Therefore, frequent snacking must be curtailed.

A number of reports have shown a worldwide decrease in the incidence of coronal caries, especially in children and adolescents, ranging from 10 to 60%. However, the number of adults older than 65 is expected to double by

2025, and people are keeping their teeth longer (53% of persons older than 65 still have at least 20 natural teeth). Further, the prevalence of root caries in the elderly is increasing, with one study reporting 75% of elderly women with clinically detectable root caries. Therefore, the restoration of damaged teeth (from caries and other reasons) will continue to be a part of practice of general dentistry for some time to come.

Operative dentistry is the phase of dentistry involving the art and science of the diagnosis, treatment and prognosis of defects in teeth which do not require restorations that cover the entire tooth (full coverage).

Restoring conservative tooth defects, such as those resulting from small carious lesions usually requires placement of intracoronal restorations whose preparations

are cut within the tooth and, if located occlusally, are narrower buccolingually than the distance between the cusps.

As tooth destruction increases in size, extracoronal restorations may be a more appropriate restoration of choice. These larger extracoronal restorations surround and cover all or part of the exposed tooth, and include crowns (also known by many as «caps») or onlays (which have an intracoronal component but also include coverage of cusp tips). Treatment with extracoronal and intracoronal restorations should result in the restoration of proper tooth form, function and esthetics while maintaining the physiological integrity of the teeth in harmonious relationship with the adjacent hard and soft tissues, all of which enhances the general health and welfare of the patient.

Restorative dentistry is the phase of clinical dentistry that includes not only the prevention and treatment of defects of individual teeth, but also the replacement of teeth that were lost or never formed. Lost teeth can be replaced using a fixed partial denture (also known as a bridge), a removable partial denture, an implant (surgical insertion or placement of artificial root over which a crown may be constructed), or complete dentures (also known as false teeth). Thus, restorative dentistry involves the restoration of lost tooth structure and/or lost teeth with the ultimate goal of reestablishing a healthy, functioning, and comfortable dentition.

Vocabulary to the text:

attrition - истирание, истертость, стираемость (зубов)

abrasion - абразия, (патологическая) стираемость (зубов)

fracture - перелом

rotten - гнилой, испорченный

erosion - (химическая) эрозия эмали и дентина

tug-of-war - решительная борьба, схватка

uptake - поглощение

alleviate - облегчать, смягчать (боль)

curtail - сокращать, урезывать, уменьшать

ingredient - ингредиент, компонент, составная часть

prevalence - распространенность, частота случаев

restorative dentistry - реставрационная стоматология

welfare - благосостояние, благополучие

ultimate goal - конечная цель

literally - буквально, дословно

implant - имплант (ат)

fixed partial denture - несъемный мостовидный протез

bridge - мостовидный зубной протез removable partial denture - съемный мостовидный протез

complete denture - полный зубной протез

false teeth - искусственные зубы

onlay - реставрационная вставка

restoration - восстановление, реставрация

GRAMMAR EXERCISES

Exercise 1. Use modal verbs or their equivalents.

1. The deciduous teeth ... appear at about six months after birth.
2. Teeth ... be kept clean to avoid the development of dental plaque (зубной налет).
3. If a decayed tooth is not treated in time pulpitis ... develop.
4. Although the dentist ... treat dental decay you ... give your teeth the daily care they need.
5. No dentist... to stop a tooth if it is too bad. In this case he... extract it.
6. When a cavity is present in a tooth, the dentist will determine what... be done to repair the damage.
7. Adults ... thoroughly brush their teeth at least once a day.
8. Poor mouth hygiene ... lead to infection and the development of tooth decay.
9. The initial lesion of dental caries ... develop in the occlusal fissures.
10. In case of caries a dentist... first gain access to it.
11. Caries removal... start in the area of cavitation.
12. Caries lesions ... occur both on pits and fissures and smooth surfaces.

13. Sometimes even a dentist... help if disease is neglected.

14. The resistance of enamel to dental caries ...be increased by application of fluoride to the tooth surface.

15. Fluoridation of water ... make teeth more resistant to caries.

Exercise 2. Translate the following sentences into Russian paying attention to the use of participles.

1. Poor mouth hygiene during pregnancy (беременность) may result in gum infection known as gingivitis.

2. Left unchecked, the plaque continues to irritate gums making them red, swollen and bleeding.

3. A balanced diet providing a sufficient amount of protein, carbohydrates, fats, vitamins, minerals and water is vital for both dental and general health.

4. Foods containing starches may also cause tooth decay.

5. Limiting the number of between-meal snacks you may avoid the development of tooth decay.

6. You can help your children have healthy teeth teaching them proper preventive measures.

7. Tooth decay is a pathologic process beginning with plaque formation.

8. If plaque is not removed daily, the enamel eventually breaks down and decays.

9. To place a crown, the dentist must prepare the tooth reducing it in size so that a replacement crown can fit.

10. Unremoved plaque can irritate gums making them red and painful.

Exercise 3. Put the words in correct order.

1) reports / shown / caries / of / a / incidence / worldwide / coronal / a / have / number / decrease / of / the / in

2) problem / artificial / to / or / gum / this / be / sugarless / used / alleviate / chewing / saliva / could

3) curtailed / must / snacking / be / frequent

4) damaged / the / dentistry / a / restoration / of / general / be / teeth / of / part / practice / should / of

5) appropriate / choice / sometimes / more / restorations / of / may / restoration / a / be / extracoronal

6) welfare / dental / patient / and / restorations / health / enhance / the / can / the / of / general

Exercise 4. From the text «The diagnostic procedure» point out the sentences with modal verbs and infinitives in the Passive form.

Exercise 5. Translate the text below in written form.

THE DECAY PROCESS

Tooth decay is an ongoing process that begins with plaque, a soft, transparent, sticky layer of harmful bacteria that constantly forms in the mouth. Certain bacteria in plaque use the sugar and starches in the food you eat to produce acids. The sticky plaque holds these acids on the teeth where they can destroy tooth enamel. Each time acid is produced, it attacks the tooth enamel for about 20 minutes. Plaque is most harmful when the bacteria have had time - about 25 hours - to organize into colonies.

After repeated acid attacks, and if plaque is not removed daily, the enamel eventually breaks down and decays. Once that happens, the decay progresses inward to the centre of the tooth. If left untreated, the decay reaches the pulp of the tooth and an abscess forms at the root end, causing pain. At this stage, the tooth will need endodontic (root canal) treatment. Without treatment, the tooth must be extracted.

Here are some warning signs of dental decay:

- a tooth that is sensitive to heat, cold or sweet;
- pain when chewing;
- swelling or drainage at/or below the gumline;
- a brown spot on a tooth;
- a persistent pain in the mouth or sinus area.

If you suspect that you have tooth decay, make a dental appointment without any delay.

SPEECH EXERCISES

Exercise 1. Answer the following questions to the text «Dental Caries and Pulpitis*».

1. When do diseases of the teeth develop?
2. What are the two most common diseases of the teeth?
3. What are the main causes of dental caries?
4. What are the symptoms of caries?
5. What parts of a tooth do carious lesions most frequently affect?
6. What are the symptoms of pulpitis?
7. What complications may pulpitis result in?
8. What does the treatment of pulpitis consist of?

Exercise 2. Speak about caries and pulpitis using questions of Exercise 1 as a plan.

Exercise 3. Complete the sentences with the information from the text «Operative and restorative dentistry*».

1. Caries results from
2. ... is the basis for prevention methods.
3. ... are important aspects of dental patient care.
4. Prevention and treatment should be based on
5. Operative dentistry is the phase of dentistry involving
6. Restorative dentistry is the phase of clinical dentistry that includes

Exercise 4. Review the text ^Operative and restorative dentistry* to answer the following questions.

1. Why do dentists believe fluoride can reduce dental caries incidence?
2. Why do dentists recommend to cut down on sugar-containing food?
3. Why does demineralization process occur?
4. What is the definition of operative surgery?
5. What is the definition of restorative surgery?
6. Define dental caries.
7. Define dental plaque.

Exercise 5. Read the text. Entitle it.

Modern science tells us that caries originates under the combined effect of microorganisms and sugar. Bacteria absorb on the surface of the teeth due to the acid that occurs in saliva. Every bite of food containing sugar gives the bacteria energy allowing them to multiply and start producing acids. The result is the formation of cavities. The initial lesion of dental caries clinically is a white spot which may become stained brown.

Adults of all ages can suffer from tooth decay. Two of three cavities in people older than 50 involve decay around fillings.

Another type of tooth decay common in older people is root caries. Root caries generally occurs in adults who suffer from periodontal disease, when the roots are exposed. As the root surface is softer than the enamel the decay occurs more easily.

A balanced diet that provides a sufficient amount of proteins, carbohydrates, fats, vitamins, minerals and water is important for both dental and general health. Other methods of dental caries control are: brushing teeth, fluoridation of water and early restoration of carious lesions.

Notes:

a white spot which may become - белое пятно, которое может стать stained brown коричневым

Exercise 6. Answer the following questions to the text in Exercise 5.

1. What causes caries?
2. When does root caries develop?
3. What are the methods of dental caries control?

Exercise 7. Summarise the text using the following introductory phrases.

The text is headlined... The text reads about... According to the text...

The main methods of caries control are enumerated...

Exercise 8. Read and translate the text and classify dental caries according to pit and fissure versus smooth surface and describe the pattern of spread of each within enamel and dentin.

CLASSIFICATION OF CARIOUS LESIONS

There are two broad classifications of tooth decay based on the anatomy of the tooth surface involved: pit and fissure, and smooth surface. The pattern by which the spread of dental caries occurs as it enlarges and deepens differs in these two types.

Pit and fissure carious lesions begin in the depth of pits and fissures which form from incomplete fusion of enamel lobes during tooth development and are nearly impossible to keep clean. Fissures and pits are commonly located on the occlusal surfaces of posterior teeth (molars and premolars), as well as on the lingual surface of maxillary molars, the buccal surface of mandibular molars, and the lingual fossae of maxillary incisors, especially lateral incisors.

In contrast to pit and fissure caries, smooth surface carious lesions occur on the smooth surfaces of the anatomic crown of the tooth in the areas which are least accessible to the natural cleansing action of the lips, cheeks, and tongue. The pattern of spread within enamel for smooth surface caries is different from that for pit and fissure caries since it begins as a relatively broad area of destruction just beneath the outer layer of enamel, but it narrows as it progresses more deeply toward the dentinoenameljunction. Once it reaches dentin, however, it spreads out wider at the dentonoenameljunction, just like pit and fissure caries.

Root surface caries is another type of smooth surface caries that occurs on cementum, most frequently in patients with disease of the periodontium, patients with decreased saliva flow, or in older patients who have had gingival recession which increases the potential for accumulation of caries-forming plaque on the cementum of root surfaces. Treatment in these cases can include polishing the root, applying fluoride (topical or fluoride containing varnishes), and keeping the roots clean through good oral hygiene.

In 1908, Dr. G.V. Black developed a comprehensive method of classifying carious lesions that has been useful when describing specific principles of cavity preparation. The original classifications were G. V. Black Class I, II, III, IV, and V. All pit and fissure type lesions are Class I, whereas Class II, III, IV, and V caries are all smooth surface type lesions.

Notes:

pit - ямка, углубление

fissure - фиссура зуба

lobe - доля

accessible - доступный, открытый

gingival recession - рецессия десны, атрофия десневого края

smooth - гладкий, ровный

polishing - полировка, полирование

comprehensive - глубокий, всесторонний; тщательный, подробный, детальный

Exercise 9. Study the text ^Classification of carious lesions* and fill in the blanks with suitable words from the text. The first letters are given to help you.

1. P... and f... are nearly impossible to keep clean.
2. The s... surfaces of the crown, least a... to cleansing are susceptible to s... surface carious lesions.
3. Pits and fissures result from incomplete fusion of enamel 1... during tooth development.
4. Older patients who have g... r... are likely to develop root surface caries.
5. Root surface caries can be treated by p... the root, applying fluoride and good oral hygiene.
6. An American dentist G.V.Black made a c... analyses of cavities design and suggested steps of their preparation.

Lesson 13

Diseases of the Mouth. Grammar: The Absolute Participial Construction. Tense Forms (Revision)

Exercise 1. Read and translate the following words and word combinations of Latin and Greek origin.

to indicate, diet, periodontitis, stomatitis, catarrhal stomatitis, chronic stomatitis, chemical stomatitis, mucous membrane, gingiva, local origin, idiosyncrasy, anaemic (anemic), stomach

Exercise 2. Active vocabulary. Learn the following words.

to indicate - указывать

to disturb - беспокоить, нарушать

to affect - оказывать влияние, влиять; поражать

to separate - разделять, разъединять

to swell (swelled, swollen) - опухать, отекасть

to bleed (bled, bled) - кровоточить

to produce - производить; вызывать

gingiva - десна

poison - яд

to inflame (inflammation) - воспаляться (воспаление)

to interfere - мешать, зд. затруднять

to be familiar with - быть знакомым с чем-либо

Exercise 3. Read and translate into Russian the following text.

DISEASES OF THE MOUTH

The mouth, in which the preliminary process of digestion begins, has a number of functions to perform. A disturbance of any of these functions indicates the presence of disease in the mouth or at some distance, as in the stomach, and bowels. In the mouth the starchy portions of the diet are given their first digestion. The absence of a number of teeth or the presence of bad teeth may disturb the preparation of food affecting the process of digestion in the mouth as well as in the stomach.

One of the commonest mouth diseases is periodontitis. This disease occurs usually during middle or late life. In some cases it may result from infection due to lowered resistance within the teeth and gums. The teeth may loosen and separate, the gums becoming inflamed. Stomatitis refers to a condition characterized by inflammation of the oral cavity.

Stomatitis is an inflammation of the soft tissues of the mouth occurring as a result of mechanical, chemical, thermal, bacterial, viral, electrical, or radiation injury, or reactions to allergens, or as secondary manifestations of systemic disease. There are various types of this disease such as: catarrhal stomatitis, chronic stomatitis, simple stomatitis, chemical stomatitis and so on. In stomatitis infection and inflammation of the mucous membrane of the oral cavity may involve the gingiva, the palate, the tongue, the cheeks: and the lips.

The lesion may be of local origin or it may be a symptomatic expression of general disease.

Simple Stomatitis. The mucous membrane of the oral cavity being inflamed, becomes sensitive and red. Often the tongue and pharynx are involved. The temperature may rise very high, especially in children. Mastication is often interfered, the breath being fetid. It may be due to catarrh of the upper air passages or digestive disturbances.

Idiosyncrasy to certain drugs may produce stomatitis, especially antipyrin, aspirin.

Chemical Stomatitis. Under the term «chemical stomatitis* certain industrial diseases come, such as phosphorous and lead poisoning.

The phosphorous stomatitis starts with a painful inflammation of the soft tissues and later causes necrosis of the jaws.

In lead poisoning the gums look rather anaemic, the gingiva showing the typical narrow band of dark blue colour.

Acute Herpetic Stomatitis is the manifestation of clinically apparent primary herpes simplex characterized by regional lymphadenopathy, sore throat, and high temperature, followed by localized itching and burning, with the formation of small vesicles of an erythematous base that give way to plaques and then painful herpetic ulcers. The gingivae are swollen and erythematous, and they bleed easily. Manifestations subside in 7 to 10 days, and recovery usually occurs within 2 weeks.

Aphthous Stomatitis refers to recurrent ulcers of the mouth that appear to be the same clinically as herpetic ulcers and for that reason have been considered to be a manifestation of recurrent herpes simplex, although the herpesvirus has never been conclusively isolated from recurrent aphthae.

Gangrenous Stomatitis is a destruction of large masses of the oral tissues, particularly the cheek. It usually is found in weakened patients with very low resistance to infection because of lowered white blood cell count or other causes. In advanced stages a large segment of the cheek may be lost, leaving the teeth visible through the defect.

Herpetic Stomatitis is an oral manifestation of primary herpes simplex infection. The term also is used by some for herpetiform ulcers considered to be oral manifestations of secondary or recurrent herpes simplex.

Medicamentosa Stomatitis is an allergic response of the oral mucosa to a systemically administered drug. Possible manifestations include asthma, skin

rashes, leukopenia lymphadenopathy, and oral lesions (erythema, ulcerative lesions and angioneurotic edema).

Nicotinic Stomatitis is an inflammation of the palatal minor salivary ducts caused by irritation by tobacco smoke or hot fluids and characterized by raised small palatal lesions with red centers and white borders. The palatal mucosa usually has a generalized keratosis accompanying the smaller lesions. Also called stomatitis nicotina.

Stomatitis Venenata is an inflammation of the oral mucosa as the result of contact allergy. The most common causative agents are mouthwashes, denture powders, and topical anesthetics. Possible manifestations include erythema, angioneurotic edema, burning sensations, ulcerations, and vesicles.

Every dentist should be familiar with various types of stomatitis and recognize them clinically.

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

пищеварение, желудок, указывать, нарушение, кишечник, расшатываться, сопротивляемость, воспаляться, быть результатом, характеризовать, воспаление, поражение местного характера, поражать, лекарства, у детей, зловонное дыхание, в пожилом возрасте, ряд зубов, вызывать стоматит, при отравлении, выглядеть, быть знакомым, распознавать

Exercise 2. Give the synonyms to the following words.

to indicate, to perform, occasionally, bowels, to start, because of, to cause

Exercise 3. Supply the words of the same root. A) Give derivatives to the following words:

to prepare, saliva, to digest, to masticate, to inflame, to result, to secrete, to disturb.

B) Choose a correct derivative and translate the sentences:

1) prepare - These pharmaceuticals are administered to relieve pain.

2) masticate- In stomatitis is often very difficult and painful.

3) saliva - Parotid gland is the gland located at the angle (угол) of the jaw in front of and below the ear.

4) disturb - Poor mouth hygiene and the presence of bad teeth can be the cause of digestive_.

5) secrete - The process by which certain substances in a plant or animal body are separated (from body liquids, blood, etc.) for use or as waste matter is called_.

6) inflame - Pulpitis is_of the tooth pulp. Sometimes the_ process may be very severe and painful.

Exercise 4. Put a correct preposition into each gap.

1. The absence... a number... teeth or the presence... bad teeth may hamper the mastication.

2. Stomatitis refers ... a condition characterized ... inflammation.

3. The increased secretion ... saliva may affect the digestion ... the mouth.

4. Phosphorous poisoning starts ... a painful inflammation ... the soft tissue.

5. ... lead poisoning the gums look anaemic.

6. Every dentist must be familiar ... various types ... stomatitis.

GRAMMAR EXERCISES

Exercise 1. Choose and translate sentences with the Absolute Participial Construction + see ex. 4/35.

1. Periodontal disease being number one cause of adult tooth loss, it strikes three of four adults during the course of their lives.

2. When diagnosed early, juvenile periodontitis can be treated.

3. Some elderly people ignore their dental health, believing that sooner or later everyone must lose his / her natural teeth.

4. Dry mouth occurring, when saliva supply is reduced, it may be a result of taking certain kinds of medicines.

5. Dental disease remains a chronic health problem, it affecting 90% to 95% of all Americans.

6. Fluoride combines with tooth enamel improving its resistance to decay.

7. Tooth plaque being colourless, it is difficult to be detected.

8. More plaque forms on the top of the calculus (зубной камень) further irritating the gum.

Exercise 2. Translate the following sentences. Determine the tense forms of the predicates.

1. In the mouth the starchy portions of the diet are given their first digestion.
2. Mastication was interfered and the breath was fetid.
3. A few cases of lead poisoning have been reported.
4. Simple stomatitis is characterized by inflammation of the mucous membrane.
5. When permanent teeth are developing in the jaw bone, the roots of the deciduous teeth are gradually dissolving.
6. Occasionally people get poisoned from the use of water that has been in a new lead water pipe.
7. The patient complained, that he had been having a high temperature for three days.
8. Inflammation appeared two days ago.
9. - Where is Dr. Smith? - I think, he is examining the patient now.

Exercise 3. Translate the sentences into English.

1. Больные зубы могут мешать правильному пищеварению.
2. Стоматит характеризуется воспалением слизистой оболочки полости рта.
3. Очень часто десны, небо, язык, щеки и губы вовлекаются в процесс воспаления.
4. Каждый стоматолог должен распознавать различные типы стоматитов.
5. Стоматит поражает губы и слизистую оболочку рта.
6. Стоматит часто начинается с болезненного воспаления мягких тканей полости рта.
7. Наличие плохих зубов часто влияет на процесс пищеварения.
8. При стоматите температура обычно не бывает очень высокой.
9. Это заболевание обычно встречается в пожилом возрасте.

Exercise 4. Determine participles and translate the sentences into Russian. Find the sentences with the Absolute Participial Construction.

1. Solutions containing sugar are sources of painful caries.
2. Among the conditions routinely diagnosed by the dentist, pulpitis is the disease that occurs most often.
3. Elderly people often suffer from the loss of teeth, as a rule periodontal disease being cause number one.
4. Pulpitis associated with internal resorption may show loss of tooth structure and enlargement of the pulp chamber.
5. Reversible pulpitis may resolve following the removal of the offending stimulus.
6. A slowly growing granuloma produced few clinical signs.
7. Vascular changes being small, the teeth react normally to heat, cold and electrical stimulation.

SPEECH EXERCISES

Exercise 1. Answer the questions to the text.

1. Where does the process of digestion begin?
2. What may the absence of teeth or the presence of bad teeth result in?
3. What is one of the commonest mouth diseases?
4. What does periodontitis result from?
5. What are the symptoms of periodontitis?
6. What types of stomatitis exist?
7. What are the clinical characteristics of simple stomatitis?
8. What may chemical stomatitis be caused by?
9. What are the typical symptoms of chemical stomatitis as compared to simple stomatitis?

Exercise 2. Speak about common diseases of the mouth cavity using the following verbs.

to indicate, to cause, to result in, to result from, to disturb, to occur, to involve, to be characterized by, to loosen, to be due to

Exercise 3. Read the text below and answer the questions given after the text.

PERIODONTAL DISEASE

Periodontal disease develops slowly. The irritants in plaque inflame the gums, making them tender and easily bleeding. The unremoved plaque hardens and collects under the gumline, making plaque removal more difficult. More plaque forms, further irritating the gums and making them red, swollen, tender, bleeding. This condition is known as gingivitis and it can be controlled by scrupulous oral hygiene and professional cleaning. If gingivitis is not treated, it develops into periodontitis.

In periodontitis, the irritated gums pull away from the teeth, forming pockets between the teeth and gums that fill with bacteria and gradually deepen. When that happens, surgery may be needed to save the teeth. If left untreated, the bone supporting the teeth is destroyed, and the teeth begin to shift and loosen. Eventually, they fall out or must be extracted.

Questions to be answered:

1. What are the symptoms of gingivitis?
2. What is the immediate cause of gingivitis?
3. How can gingivitis be controlled?
4. What are the main symptoms of periodontitis?

Exercise 4. Read and translate the following text into Russian.

YOUR GUMS ARE IN TROUBLE

There are many signs of periodontal disease: swollen, painful or bleeding gums, bad breath, and loose or sensitive teeth. But gums don't always let you know they are in trouble, even in the late stages of disease. Bacterial infection may be silently and progressively destroying the soft tissues and bone that support your teeth. Early diagnosis of periodontal disease, prompt treatment and regular checkups bring the best results.

Periodontal disease is a serious and often ongoing condition, it requires an ongoing treatment programme to control it effectively. After a thorough evaluation, your periodontist will recommend the best course of professional treatment. Whether this means non-surgical or surgical treatment, it always includes home care. The periodontal therapy you get in the dentist's office takes care of the infection you have now and helps maintain control. But only you can provide the daily flossing,

brushing and other care needed to prevent periodontal disease from getting worse or coming back.

A periodontist is a specialist who specializes in the diagnosis, treatment and prevention of periodontal disease. In addition to four years of dental school, your periodontist has had extensive training in this specialty. He or she will provide you with treatment that ranges from deep cleaning of teeth and gums to surgical removal of infection to surgery that actually may restore soft tissue and bone, damaged by periodontal disease. Many periodontists also treat temporomandibular joint disorders (TMD), and are skilled in replacing missing teeth with dental implants.

Exercise 5

A) Find words in the text which mean:

- 1) to supply what is needed;
- 2) examination;
- 3) teeth, moving more freely than is right or usual;
- 4) the process of giving medical or surgical care;
- 5) keep up, continue;
- 6) full;
- 7) prophylaxis;
- 8) absent.

B) Complete these phrases with a verb. They all appear in the article.

- 1) to ... the best results;
- 2) to ... effectively;
- 3) to ... care;
- 4) to ... control;
- 5) to ... a disease;
- 6) to ... in the diagnosis;
- 7) to ... treatment;
- 8) to ... training in.

Exercise 6. Answer the following questions.

1. What are the signs of periodontal disease?
2. Can the disease disappear if untreated?
3. What is the role of bacterial infection in periodontal disease?
4. What kind of specialist can provide the best treatment in this case?
5. What is the role of home oral care?
6. Is it difficult to acquire the specialty of a periodontist?
7. What kind of treatment can these specialists provide?

Exercise 7. Summarise the text *^Periodontal Disease** using the following introductory expressions.

The text is about...

It is stressed that...

It is pointed out that...

In conclusion it is said that...

Exercise 8. Read the following text. Pay attention to the following questions and give the main idea of the prophylaxis of periodontitis.

PROPHYLAXIS OF PERIODONTITIS

Why do we have to brush our teeth?

To remove dental deposit and avoid different gum diseases. Every day a sticky film appears on the tooth surface. This film consists of bacteria that accumulate in places hard to reach and especially between

teeth and on the gum border. That may cause various diseases of the teeth such as caries and periodontitis.

What is the difference between tooth deposit and dental calculus?

Bacteria deposits interact with minerals contained in the saliva and gradually harden. That is the way for dental calculus to appear.

Dental calculus can be removed only by means of professional hygienic tooth cleaning performed by a doctor.

What does a healthy gum look like?

A healthy gum is pale pink, strong and dense. It's snug against necks of teeth. While being brushed healthy teeth don't bleed.

How does periodontitis appear?

If you don't remove tooth deposits for a long time bacteria produce toxins that cause gum inflammation. It is the first stage of the disease or gingivitis.

What are the symptoms of periodontitis?

Inflamed and bleeding gums, unpleasant taste in your mouth, smell from your mouth, gradually progressing mobility of the teeth.

How does the inflammation appear?

When a bacterial deposit grows and reaches the gingival margin (a small cavity between tooth and gum) deeper periodontium layers get inflamed. Pathological periodontal sinuses appear. As a result bone tissue also gets inflamed and that causes its destroying.

The more bone tissue is destroyed, the more is tooth mobility, and so suppurative inflammation (abscess) can appear within periodontal sinuses. Sometimes a gum lowers leaving dental roots naked.

What is the daily periodontitis prophylaxis?

At home you should try to completely remove dental deposits.

Most people can't even imagine how difficult is to remove a tooth deposit and especially on a gingival margin. While brushing teeth people usually miss one and the same place .

It is in these zones that inflammation usually appears. To avoid it a doctor performs a test with a dye to find out where dental deposits usually remain after brushing. With the doctor's help you can become familiar with effective dental care. Good oral hygiene makes your breath fresh and your gums and teeth healthy.

Why is it necessary to have professional hygienic cleaning of the teeth?

There are places that are hard to reach (interdental spaces and periodontal sinuses) where it's impossible to remove bacteria deposits and dental calculus without any help. People who smoke and drink strong tea or coffee usually have darkened teeth.

Professional hygienic cleaning of teeth removes dental deposits, it renews natural enamel colour. So it's better to have professional hygienic cleaning of teeth regularly.

Professional hygienic cleaning involves:

1. Deposit colouring and individual consultation concerning hygiene.
2. Removal of dental deposits and dental calculus; periodontal sinuses and interdental spaces are cleaned with the help of an ultrasonic device or manually.
3. Renewing of natural enamel colour and whitening with an airflow method.
4. Tooth surface polishing.
5. Fluoride treatment.

Exercise 9. The text to be translated in written form.

Dental diseases are not different from other diseases but they are comparatively easy to diagnose, because the affected tissues are open to observation.

The most common dental diseases are caries, gingivitis and pyorrhoea.

Dental caries may affect enamel or it can involve both enamel and dentine.

Gingivitis is an inflammation of the gum margin or gingiva that may in time involve the underlying and adjacent structures.

Pyorrhoea occurs usually during middle or late life. There maybe an oedema of the periodontal membrane, in which case the teeth are raised in their sockets and elongated, and yet this condition is not actually pyorrhoea since there is no infection. Pyorrhoea exists when there is a partial destruction of the periodontal membrane and purulent discharge indicating infection. In the treatment of pyorrhoea it is necessary to remove all sources of irritation. Diet plays an important role in building up the local tissue resistance.

Exercise 10. Reading for information. Use a dictionary if necessary.

APICAL PERIODONTITIS

The changes in the periodontal ligament around the apical foramina cause an increased pressure, producing sensitivity to percussion, occasional elevation of the tooth in its socket, creating trauma and pain on chewing.

The complications of apical periodontitis may occur in four forms: the periapical granuloma, the apical periodontal cyst, the periapical abscess, and osteomyelitis.

The granuloma grows slowly and produces few clinical signs. The same is true of the apical periodontal cyst, until it becomes so large that it expands the cortex of the maxilla or mandible. Both are readily seen on radiographs.

Apical periodontitis and its sequelae are treated by endodontic therapy or extraction of the tooth. When this condition is accompanied by systemic symptoms, antibiotic therapy may precede the definitive dental therapy.

PERIODONTAL DISEASE AND DIABETES

Periodontal diseases affect the soft tissues and bone that support the teeth. Gingivitis or inflamed gums, is the early form of periodontal disease. If left unchecked, gingivitis can progress to a more severe condition called periodontitis. This infection, caused by harmful bacteria, eventually destroys the bone and ligament which hold the teeth in place. Sound teeth may become loose and, if untreated, can be lost.

For people with diabetes mellitus, periodontitis can be a major complication of their disease. Periodontal infection can upset blood sugar control, and loose or missing teeth can make eating the right foods difficult.

WHAT CAUSES PERIODONTAL DISEASE?

Dental plaque plays a major role in the development of gingivitis and other periodontal diseases. Plaque, a sticky film containing millions of bacteria, attaches to the teeth. Only certain types of bacteria, however, are suspected of causing gum disease. Dental scientists are studying these and other harmful organisms to determine the exact roles they play in periodontal problems.

Other factors that contribute to gum diseases include poor nutrition, inherited defects in infection-fighting cells, hormonal changes in pregnancy, and certain diseases such as diabetes mellitus.

Periodontal diseases are a problem for many people. In fact, the majority of the population above the age of 40 probably have some form of the disease, ranging from mild gum inflammation to severe periodontal infection. Although most of the damage from gum disease occurs after the age of 35, dental scientists believe that the disorder has its beginnings in youth. Most school children have gingivitis, and some even have the more destructive form of periodontal disease.

A GUIDE TO DENTISTRY

- Lasers - used instead of drills to treat soft tissues (like gums), although they can't cut through dental enamel.

- Infra-Oral Cameras - pen-shaped devices used to take snaps of your teeth. The image can be flipped onto a monitor to explain treatment.
- Porcelain Laminates - the veneer material that most closely resembles natural tooth. Surface details, colour and texture look natural. Veneers can be made as thin as 0.5 mm yet last for 15 years.
- Resin Laminates - slightly cheaper than porcelain but don't look as good or last as long, say dentists. Resin is porous, takes up stains and has to be replaced every 2-4 years like white fillings, making it more expensive in the long run.
- Dental patches - an alternative method of pain control. They stick to gums like a plaster and administer a dose of anaesthetic. Great for injection phobics, although they can be tricky to keep in place, according to dentists.
- Glass Ionomer Fillings - bond chemically to the tooth and act as a fluoride source, but they can't be used on biting surfaces.
- Injections - needles are getting finer and less painful.

UNIT VIII. ORAL DISEASE PREVENTION

Lesson 14

Oral Disease Prevention. Grammar: The Complex Subject Revision.

The Past Participle (functions).

Modal Verbs

Exercise 1. Read and translate the following words of Latin and Greek origin.

carbohydrate, type, plaque, periodontal, fluoride

Exercise 2. Active vocabulary. Learn the following words.

dental health - здоровье полости рта

to follow - следить; следовать

to brush - чистить щеткой

a toothbrush - зубная щетка

a toothpaste - зубная паста

to remove - удалять, убирать

to bite - кусать

a bite - прикус

an overbite - глубокий прикус;

верхнечелюстное зубное перекрытие

cross bite - перекрестный прикус

a biting surface - жевательная поверхность

to prevent - предупреждать

prevention - зд. профилактика

preventive measures - профилактические меры

to consider - считать, полагать

to consume - потреблять

etc. = et cetera - и т.д. (и так далее)

to improve - улучшать (ся) mouthwash, mouthrinse - жидкость для полоскания рта

to floss - прочищать флоссом

starchy food, carbohydrate - пища, богатая углеводами containing foods

Exercise 3. Read and translate the following text into Russian.

FIVE STEPS TO DENTAL HEALTH

Dental health is an important part of total well-being. Nearly all dental diseases - tooth decay and periodontal (gum) disease - are preventable. All you have to do is to follow these five steps to dental health:

1. Brush and floss your teeth thoroughly at least once a day. Toothbrushing is well-known to remove plaque from the outer, inner and biting surface of the teeth. Tooth decay and periodontal disease often start in those areas where a toothbrush cannot reach. Only flossing removes plaque from between the teeth and under the gumline.
2. Brush your teeth after meals when you can. Remember to brush gently with short strokes and enough pressure, changing the tooth brush position frequently.
3. Eat a balanced diet. Dietary habits and the patient's attitude to them are of prime importance since diet is one of the main factors in the development of the dental

problems. The relationship between diet and dental health is considered to be very complex and involves many factors, such as the amount of carbohydrate containing foods (sugar and starchy foods) consumed, when and how often you eat, the types of food eaten, the period of time that food remains in the mouth, etc.

4. Use fluoride daily. Fluoride history is also of importance since the fluoride ion delays lesion progression. It is always wise to check that a fluoride toothpaste is used. Use a fluoride toothpaste. Fluoride is known to combine with tooth enamel improving its resistance to decay. Recently fluoride mouthrinses and mouthwashes have become widely used. In addition to brushing and flossing these products can effectively help to prevent tooth decay.

5. Visit your dentist for regular examination, professional cleaning of teeth and early identification and treatment of dental problems. Clinical examination is the most useful indicator of different diseases of the mouth cavity.

Note:

a stroke - *зд.* взмах, отдельное движение

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

кариес, после еды, заболевание зубов, чистка зубов, зубной налет, десневая линия, сбалансированное питание, внешняя (внутренняя) поверхность; пища, богатая углеводами; фторсодержащая зубная паста, устойчивость к кариесу, жидкость для полоскания рта, профилактика, раннее обнаружение заболевания

Exercise 2. Find the antonyms in the text.

an inner surface, dental disease, non-preventable, long, finish, seldom, forget, simple, late, above

Exercise 3. Say what parts of speech the following words belong to. Translate them.

prevention, preventable, daily, widely, gently, treatment, to treat, the toothbrushing, periodontal, to brush, identification, a mouthwash

Exercise 4. Fill in the blanks with the words from the text.

1. The removal of food particles helps ... tooth decay.

2. Dental caries now is a ... disease.
3. Children must be recommended ... teeth after meals.
4. You must consult your dentist about... you need.
5. Dental... that leads to tooth decay also causes (вызывает) periodontal
6. Thoroughly ... and ... your teeth each day and eat a ... diet to keep your gums healthy.
7. Take your child to the dentist for regular
8. In addition to the prevention of tooth ... may also prevent calcium loss from bones.

Exercise 5. Remember the word combinations and use them in the sentences of your own.

bacterial plaque - зубной налет dental plaque - - »- calculus plaque - зубной камень subgingival plaque - поддесневая бляшка

GRAMMAR EXERCISES

Exercise 1. Read the text «Five Steps to Dental Health* and find sentences with the Complex Subject. Translate them into Russian.

Exercise 2. Translate the following sentences into Russian.

1. Water fluoridation is considered to be a highly effective, easily applicable (применимый), safe and economical preventive measure.
2. The unremoved plaque is known to harden and collect under the gumline.
3. Plaque seems to build up faster and in larger amounts as we get older.
4. A strong body is known to depend on balanced nutrition and exercise.
5. Most types of dental diseases are likely to be treated by a general dentist.
6. Periodontal disease is reported to be the main cause of tooth loss in adults.
7. Soft tooth brushes are not likely to injure the gums.
8. Dental caries is thought to be a preventable disease nowadays.
9. The delegation of American dentists is reported to have arrived on Monday.

Exercise 3. Translate the sentences into English.

1. Как известно, чистка зубов фторсодержащей пастой является эффективным средством профилактики кариеса.
2. Известно, что регулярный осмотр полости рта стоматологом помогает предотвратить заболевания зубов и полости рта.
3. Неправильное питание матери, весьма вероятно, может являться причиной аномалий развития зубов у ребенка.
4. Сообщается, что заседание комитета состоится (take place) в 16 часов.
5. Детям рекомендуется начинать чистить зубы после двух лет. Exercise 4.

A) Find Past Participles used in postposition in point 3 of the text. Translate them into Russian.

B) Translate the sentences with Participle II in postposition:

1. With modern X-ray equipment the amount of radiation received is extremely small and the risk is negligible.
2. A diet recommended for children should contain daily consumption of bread, cereals, fruit and vegetables, milk and milk products, and meat.
3. The average weight of the children examined was 2,470 gr.
4. The tumours studied were visualised in all cases by both methods.

Exercise 5. In the text «Five Steps to Dental Health find the verb to have used as:

1) an equivalent of «must», 2) an auxiliary verb in the Present Perfect Tense.

Exercise 6. Translate into Russian. Pay special attention to different meanings of since.

1. Many changes can be observed in the public health system of Russia since the 1980s.
2. Dr. Grey has worked in this hospital since he came to live in this town.
3. Since we have no money, we can't buy the house now.
4. He went to Turkey in 1995 and has not been heard of ever since.
5. Since last seeing you I have been ill.
6. She had not been home since her marriage.
7. Since she is no longer working here, she cannot use the company's car.
8. You should talk to Helen since she is responsible for the project.

9. Since what time have you been working as a nurse here?

10. He will not be able to attend the conference next week, since he will be on holiday with his family.

11. His health has become much worse since he retired.

Exercise 7. Exercise 1. Read the following text and find all the sentences with modal verbs. Translate the text into Russian.

Note:

Must expresses a strong obligation; have to expresses a general obligation based on a law or a rule; should expresses advice, or a mild obligation. Can (could) and may, might are used to express degrees of probability.

CARE OF CHILDREN'S TEETH

Even though baby teeth fall out and are replaced by adult teeth, it is important that they are retained for the proper time and not prematurely lost. Early loss of baby teeth can affect the development of the adult teeth and may result in need for orthodontic treatment, as well as alteration of facial structures, speech and eating ability.

First teeth need regular cleaning in order to remove plaque, a sticky substance composed of bacteria and food debris. Plaque begins forming on the teeth as soon as they have erupted into the mouth. Bacteria in the plaque feed on sugars and produce acids. When food, containing sugar is eaten, some of it sticks to the plaque and is turned into acid by plaque bacteria. The acid forms within the plaque and dissolves the underlying enamel to produce caries.

It must be explained to expectant and nursing mothers that caries cannot be prevented if plaque is not thoroughly removed daily.

Before the teeth erupt, baby's gums should be wiped gently with a soft wet washcloth (салфетка из махровой ткани) once a day, preferably at bedtime.

When the teeth start appearing, a washcloth should be used to clean them and then progress to a soft child's toothbrush.

Inappropriate feeding of children can lead to the type of caries called Baby Bottle Tooth Decay (early childhood caries). Infants should not be put to sleep with a bottle containing milk, juice or other sweetened liquid. Infants should start to supplement their diet with non liquids at 4-6 months of age. Oral hygiene should be started with eruption of the first primary tooth.

Note:

nursing mothers - кормящие матери

SPEECH EXERCISES

Exercise 1. Answer the questions to the text «Five Steps to Dental Health*».

1. What does the text deal with?
2. Why is dental health so important?
3. Are dental diseases preventable or not?
4. Why is it necessary to brush the teeth after meals?
5. What is the use of flossing?
6. How is it recommended to brush teeth?
7. Is it necessary to change the position of a toothbrush when brushing teeth?
8. How long does tooth brushing usually take?
9. What is the relationship between diet and dental health?
10. What factors are involved here?
11. Why is the intake of fluoride so important?
12. What are the 5 steps of tooth decay prevention?
13. Do you think it is important to see the dentist regularly? Why?

Exercise 2. Speak on the importance of the 5 steps of dental disease prevention.

Exercise 3. Read the text and try to answer the questions given after the text Entitle it.

How much does your health mean to you? Do you understand the importance of disease prevention? Everybody must remember: if you smoke, STOP. If you don't smoke, DON'T START. In addition to chronic bronchitis, emphysema, heart disease and lung cancer, there is also the risk of cancer developing in the throat and mouth. Nine thousand people die each year from oral cancer, and smokers have the risk of dying from oral cancer five times greater than non-smokers. It's a tragedy that can be prevented.

Alcohol consumption is also considered to be the risk factor for developing oral cancer.

In addition to these 2 definite risk factors - tobacco and alcohol - there are other risk factors. They include poor dental health, inadequate diet, geographic location and occupation. Men are more likely to develop oral cancer than women. The disease can involve lips, tongue, floor or roof of the mouth, the inner lining of the cheeks, gums and other intraoral tissues.

Many of these symptoms are painless and people ignore them. This is a serious mistake. The sooner the cancer is diagnosed, the sooner the treatment can begin. Early detection of oral cancer makes successful treatment possible.

Questions to be answered:

1. Can cancer be prevented?
2. What risk factors are mentioned here?
3. Why is smoking so dangerous?
4. Do many people die of oral cancer?
5. Who are more likely to develop oral cancer: men or women?
6. What organs does the disease involve?
7. Are the symptoms painful?
8. What makes successful treatment possible?

Exercise 4. Read the text and discuss it.

DIET AND DENTAL HEALTH

Generally speaking a diet adequate for normal growth and development of the body is adequate for building and maintaining the health of the teeth and their supporting structures.

Calcium is essential for the development of teeth, and it is during the years the enamel is forming that this element is so important. The enamel begins to develop about five months before birth and is usually completed by eight years except for the wisdom teeth, crowns of which are completed between 12 and 16 years of age. An inadequate supply of calcium during these years may result in poorly formed teeth.

Once the teeth are completely formed and calcified and have erupted in the mouth, no more calcium is necessary for their growth. Calcium will, however,

be needed throughout the whole life since it is essential to the body for other reasons, one being the development and maintenance of the bones.

The health of the teeth and gums would benefit if people ate fewer highly cooked, refined foods and ate more of the granular, fibrous foods. Soft foods often impact between the teeth and cling to their surfaces, whereas the coarse foods tend to brush off and clean the teeth. Chewing coarse foods also will cause the teeth to move up and down slightly in their sockets, which is conducive to their health.

It would, of course, be impossible to remove all highly cooked foods from the diet and it would not necessarily be desirable. Eating of more fibrous foods, such as fresh fruits and vegetables should however be encouraged.

Sugar is an important factor in causing tooth decay, it is therefore desirable to restrict the use of sugar in the diet. Children especially should be encouraged to limit their intake of sweets to mealtime and to substitute such foods as milk, fruit, uncooked vegetables, and nuts for confections between meals. This is one way that all children can help prevent decay in their teeth.

Exercise 5. Here are some answers. Write down the questions.

1. What_?

Calcium is essential for the development of teeth.

2. When_?

The enamel begins to develop about five months before birth.

3. What_?

An inadequate supply of calcium may result in poorly formed teeth.

4. Why_?

Since it is essential for the development and maintenance of the bones.

5._?

The coarse food brushes off and cleans the teeth, chewing coarse foods also causes the teeth to move up and down slightly in their sockets, which is conducive to their health.

6. What_?

Sugar is an important factor.

7. How_?

It is necessary to limit the intake of sweets to mealtime in children.

Exercise 6. Read the text and pay special attention to the following points.

1. Eat plenty of raw vegetables.
2. End the meal with a fruit.
3. Avoid eating between meals.
4. Avoid very hot as well as very cold foods.
5. Brush teeth after a solid meal and gargle after a sweet drink.
6. Restrict sweets.
7. Chew the food thoroughly before swallowing. It is good for the teeth and for the body.

WE ARE WHAT WE EAT...

Good health is the vital part of the great experience of living. To achieve this adequate food of the right type is the foremost necessity of health. People with a poor diet are more likely to have dental problems.

Calcium has proved to be essential for teeth and gums even from the time of prenatal life. Dairy products, fish, green leaf vegetables are considered to be sources of this mineral. Vitamin D found in sunlight and oily fish appears to aid in calcium absorption.

Fluoride is known to be necessary in early life for the formation of caries resistant teeth. But it is reported to be a double-edge nutrient, its deficiency as well as excess can cause dental problems. Fluoride can be found in water, carrots, fish, tea.

Such minerals as phosphorous and magnesium are also believed to be essential for the formation of the tooth enamel. These are found in meat, fish, eggs, spinach, bananas and whole wheat.

Foods containing starches and sugar are well known to cause tooth decay. Starch is present in cereal, bread, vegetables, fruits and processed foods. Eating snacks between meals, especially sweets, sipping sugary drinks have been found to increase the risk of tooth decay. Starches are broken by saliva into simple sugars that are converted to enamel destroying acids by the bacteria in the mouth. Starchy foods that stick to the teeth are most likely to cause tooth decay because acids formed from them remain in contact with enamel. Cheese is reported to help fight tooth decay caused by sugary foods. Drinking tea without addition of sugar is also

recommended to prevent dental decay. Epidemiological surveys have reported that some populations who drink tea on a regular basis have a reduced number of carious teeth.

Bleeding gums appear to be a sign of vitamin C deficiency. Protein and vitamin A deficiency also influences immune status. Diet rich in gooseberry, citrus fruits, papaya, carrots, beans, tomatoes is known to promote gingival health.

Raw vegetables, fresh fruits, other fibrous foods help better blood circulation in the gums and remove food debris and plaque.

If you don't want to have dental problems you should pay more attention to your diet as it is very important for your dental health.

Lesson 15

Preventive Dentistry. Grammar: Modal Verbs. Infinitive (Revision)

Exercise 1. Active vocabulary to the text. Learn the following words.

to trap - ловить, поймать (в ловушку)

to improve - улучшать

to reduce - снижать, уменьшать

to occur - иметь место, происходить

to extract (a tooth) - удалять (зуб)

to eliminate - ликвидировать, устранять

to fill (a tooth) - пломбировать (зуб)

to damage - наносить вред

acrylic resin - акриловая смола

porcelain teeth - фарфоровые зубы

to tint - тонировать

Exercise 2. Read and translate into Russian the following text and answer the questions.

PREVENTIVE DENTISTRY

Preventive dentistry includes cleaning the teeth, removing plaque, and advising patients how to brush teeth properly and how to use dental floss (a thread which removes food particles trapped between the teeth). Studies have shown that tooth

decay is decreasing in many countries as a result of preventive dentistry, improved diet, dental care, and the use of fluoride. Fluoride is a substance which can reduce tooth decay, and can be incorporated in the tooth enamel by taking tablets or drops, or by using a fluoride toothpaste. It occurs naturally in some drinking water but is also added artificially in a ratio of one part per million.

The form of treatment known as orthodontics involves first X-raying the teeth, then using braces and other devices to straighten them, to even out any gaps, and to make the teeth, gums and jaws work correctly.

This treatment should be carried out while the teeth are still growing and developing, but, in a few cases, orthodontic treatment is carried out on adults.

Another branch of dentistry, called periodontics is concerned with the treatment of gum disease, which is a particular problem among older people. Like tooth decay, gum disease is also caused by excess plaque, which irritates

the gums and eventually leads to receding gums and loss of bone. Lacking support the teeth become loose and have eventually to be extracted. Regular removal of plaque is very important in the fight against gum disease.

People who have lost most or all of their teeth go to the dentist to have dentures, or false teeth, fitted. In the past, dentists made sets of false teeth using real human teeth or carved ivory. Today dentures are made from a plastic called acrylic resin or from metals such as chrome, cobalt, stainless steel, or gold. Plastic or porcelain teeth can be tinted to look like natural teeth. Dentures may be either complete (when all teeth are missing) or partial (when the patient still has some teeth left).

Questions to be answered:

1. What measures does prevention in dentistry include?
2. Why is plaque removal so important?
3. What chemical substance, when added to drinking water, can reduce tooth decay?
4. How much fluoride is usually added to drinking water?
5. In what cases is orthodontic treatment necessary?
6. What methods help orthodontists in their treatment?
7. What branch of dentistry is concerned with the treatment of gum disease?
8. What factors can cause gum disease?

9. Why is gum disease so dangerous?
10. How can dentists help patients in case of periodontitis?
11. What do people, who have lost their teeth, have to do? 12. What did dentists use as dentures in the past?
13. What materials are used for prostheses nowadays?

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

удалять (зуб), уменьшать(ся), добавлять, выполнять, развиваться, ликвидировать, пломбировать (зуб), наносить вред, обеспечивать, зубной налет, советовать, рентгеновское обследование

Exercises 2. Give nouns for the following verbs.

to develop, to involve, to fill, to decrease, to reduce, to use, to damage, to extract, to improve, to trap, to advise, to remove, to study

Exercise 3. Find in the text synonyms for the following words.

grown-ups, to catch, to contain, to reduce, a field (of dentistry), dental caries, to involve, to perform, in some cases, false teeth

GRAMMAR EXERCISES

Exercise 1. Complete the sentences using one of the modal verbs given in brackets.

1. Any food containing sugar _cause caries (must, can, should).
2. Before caries is treated, it _first be detected (have to, may, must).
3. All unnecessary instruments _be out of view before a patient enters the surgery (should, might, can).
4. Used instruments _be cleaned and sterilized (could, have to, must).
5. Healthy adults _lose up to a pint of blood without any ill effects (can, must, should).
6. If the pulp is still vital, and not affected by pulpitis, the tooth_

be filled (must, have to, can).

Exercise 2. Translate the sentences into Russian and determine the function of the Infinitive.

1. To walk is useful.
2. To know English means first of all to be able to speak English.
3. May I come in?
4. I don't know what to do.
5. We stopped to have a rest.
6. Who was the last to come?
7. I am waiting to be told the results.
8. This work must be finished today.
9. They were the last to be asked about it.
10. Do you want me to translate this text?
11. The earth was believed to be flat in ancient times.
12. That monument is supposed to have been erected by this architect.
13. I'd like you to meet my friend.
14. We expect her to come tomorrow.

Exercise 3. Change the sentences and use Complex Subject.

1. It has been found out that dried fruits like dates, figs, raisins have a similar effect to sticky sweets because they are rich in concentrated sugars and get stuck to the teeth.
2. It is known that periodontal disease results from inflammation of the gum that gradually causes destruction of the bone supporting the teeth.
3. There appears to be tooth loss resulting from periodontal disease.
4. It is believed that water fluoridation is the most effective public health strategy for caries prevention.
5. It is likely that starchy foods that stick to the teeth cause decay.

Exercise 4. Translate the sentences from English into Russian.

1. Drinking tea on a regular basis has been reported to reduce the number of carious teeth.
2. Excessive intake of fluoride appears to cause fluorosis in the enamel of the teeth.
3. The structure of the teeth will actually be stronger and less likely susceptible to decay.
4. Bleeding gums appear to be a sign of vitamin C deficiency.
5. Components of tea seem to contribute to the inhibition of caries.
6. Tannin along with other components of tea such as catechin, caffeine and tocopherol has been shown to be effective in increasing the acid resistance of the enamel.
7. A person who is susceptible to dental caries is required to avoid eating between meals and restrict the intake of confections to once a week.
8. Cheese is reported to prevent the formation of acids in the mouth which attack the enamel.
9. He is supposed to discharge the patient from the hospital.
10. He is supposed to have discharged the patient from the hospital.
11. He is supposed to be discharged from the hospital.
12. He is supposed to have been discharged from the hospital.

Exercise 5. Translate the sentences from Russian into English.

1. Говорят, что печень является лучшим источником молибдена.
2. Очевидно, замена сладостей твердой, волокнистой пищей замедлит образование налета.
3. Если вы не соблюдаете сбалансированную диету, очень вероятно, что у вас будет кариес или заболевание десен.
4. Обнаружено, что бактерии в бляшке продуцируют кислоты, которые могут разрушить эмаль зуба.
5. Доказано, что всякий раз, когда кислота образуется, она воздействует на зубную эмаль в течение 20 минут.
6. Неправильное питание матери, весьма вероятно, может являться причиной аномалий развития зубов у ребенка.

7. Как известно, в молоке содержится крахмал

Exercise 6. Use the words given in brackets in proper forms.

1. Some years ago dental scientists (проводить) research to see the effect of fluoride (добавлять) to drinking water.

2. Prevention in dentistry (включать) a balanced diet.

3. In some countries fluoride (добавлять) to drinking water.

4. In some countries tooth decay (уменьшаться).

5. Excess plaque often (вызывать) gum disease.

6. This treatment (проводиться) at our dental clinics.

7. At that time dentists (не давать) patients anesthetics to kill pain.

8. In the past dentists (использовать) natural human teeth as dentures.

UNIT IX. HEALTH CARE IN RUSSIA

Lesson 16

Public Health in Russia. Grammar: Functions of the Infinitive

Exercise 1. Read and translate into Russian the following words and word combinations of Latin and Greek origin.

primary stage, qualified doctor, therapist, dentist, medical institution, maternity home, paramedical personnel, total sum, specialised centre, medical equipment, preventive medicine, annual, dental inspection, medical examination, planned and controlled medical assistance, fatal, national strategy, concentrate on medical problems, cancer, tuberculosis

Exercise 2. Practice the pronunciation of the following words and word combinations, use the dictionary.

charge, department, means, available, congenital, developed, call, qualified, joint venture, emergency aid, annual, furnish, prosthetics, orthodontics, care, maternity

Exercise 3. Learn the active vocabulary to the text.

free of charge - бесплатно

to call in a doctor - вызвать врача

a unit (department) - отделение

an in-patient department - стационар an out-patient department - амбулаторное отделение to take care of - заботиться о ком-либо

health care - здравоохранение

a medical (dental) check-up - медицинский (стоматологический)

осмотр

to carry out a medical - проводить медицинский осмотр

examination

to undergo a medical - проходить медицинский осмотр

examination

to provide (render) assistance - оказывать помощь

dental inspection - стоматологический осмотр

means and ways of effective - средства и пути эффективного treatment лечения

a congenital (developed) - наследственное (приобретенное)

disease заболевание

a maternity home - родильный дом

paramedical personnel - средний медицинский персонал

Exercise 4. Translate the following word combinations into Russian before reading the text.

along with this, no matter where a person lives, to be available, expenses are borne by the state, emergency aid station, over one million doctors, to consume a lion's share of allocation, about two thirds, with the aim of, to set up, to carry out, to call in, to check up

Exercise 5. Read and translate the text into Russian.

PUBLIC HEALTH IN RUSSIA

Health service in Russia is controlled by the state. As in many other countries, the public health service in Russia is free of charge. All types of medical aid including surgical intervention are available to everyone.

No matter where a person lives, he can always call in a doctor and get a qualified medical aid. All expenses are borne by the state which has a wide network of medical institutions: hospitals, polyclinics, maternity homes, emergency aid

stations and so on. Along with these, there are many medical institutions which provide medical assistance for money, such as joint ventures or self-financing polyclinics, for example.

In-patient departments of the state medical institutions have the total of 35 million beds. Over one million doctors and more than three million paramedical personnel are involved in the job of taking care of the people's health. Hospitals consume a lion's share of state allocations for health - about two thirds of the total sum. New large hospitals and specialised centers are set up. Much is done to increase the output of the latest types of medical equipment including radio electronics and nuclear physics.

Everybody knows that it is much easier to prevent a disease than to treat it. The famous Russian surgeon N. Pirogov wrote that the future belongs to preventive medicine. Prophylaxis is one of the basic principles of the Russian public health system. Annual medical check-ups are carried out at every district polyclinic or large factories and farms with the aim of detecting diseases at the earliest stages of their development.

Dental service in our country is also planned and controlled by the state. Dental care is provided free of charge in specially equipped dental polyclinics and in-patient departments. The majority of dental clinics are furnished with modern equipment, have X-ray rooms, physiotherapy units and oral health care rooms. The assistance is rendered by various specialists: dental therapists, surgeons, prosthetists, dental mechanics and orthodontists.

Prevention in dentistry is just as important as in general health care. Neglected dental disorders lead to complications that sometimes may be very serious or even fatal. So, the national strategy for dental care is prevention and timely treatment of diseases of the teeth and oral cavity. People are recommended to undergo prophylactic check-ups once or twice a year to protect themselves from dental diseases.

Like everywhere in the world, medical science in Russia concentrates on the solution of most important health problems such as the development of new ways and means of prevention and effective treatment of cardiovascular diseases, cancer and many other dangerous diseases both congenital and developed. Much attention is paid to the prevention and treatment of tooth decay and other diseases of the teeth and mouth cavity.

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

здравоохранение, профилактический осмотр, проводить медицинский осмотр, проходить медицинский осмотр, бесплатно, оказывать медицинскую помощь, вызвать врача на дом, заботиться о, создавать (основывать), способы и средства лечения, отделение больницы, стационар, родильный дом, врожденное (приобретенное) заболевание, наряду с, кариес

Exercise 2. Translate the sentences into Russian.

1. All types of medical help including surgical intervention are available to everyone no matter where he lives.
2. One can always call in a doctor if necessary and get a qualified medical aid.
3. All expenses are borne by the state which has a wide network of medical institutions: hospitals, polyclinics, maternity homes, emergency aid stations, and so on.
4. State allocations into public health make it possible to build new large hospitals and set up specialised centres equipped with modern apparatus.
5. Over one million doctors and more than three million paramedical personnel are involved in the job of taking care of the people's health.
6. Dental care is provided free of charge in specially equipped polyclinics and in-patient departments.
7. People are recommended to undergo prophylactic check-ups once or twice a year to protect themselves from diseases.

Exercise 3. Fill in prepositions where necessary.

1. Health service ... Russia is planned and controlled ... the state.
2. You can always call ... a doctor if you do not feel well.
3. All expenses in hospitals are borne ... the state.
4. State allocations make it possible to set... specialised medical centres.
5. Annual medical check-ups are carried ... at every district polyclinic.
6. Medical science in Russia concentrates ... most important health problems.

GRAMMAR EXERCISES

Exercise 1. Form nouns from the verbs using the suffix -MENT and translate them.

to develop, to establish, to treat, to improve, to equip, to agree, to enjoy, to pay

Exercise 2. Determine the functions of the Infinitive and translate the following sentences.

1. To prevent a disease is much easier than to treat it.
2. State allocations make it possible to set up new large health care centres.
3. To keep healthy one must undergo regular medical and dental checkups.
4. To reveal diseases at an early stage medical check-ups are carried out at district polyclinics.
5. N. Pirogov was the first medical man to stress the importance of preventive medicine.
6. It is for the doctor to decide when you can be discharged from the hospital.
7. He worked very hard to finish writing his article in time.
8. It is necessary for you to have an ECG made before you come to see me next time.
9. You have to take this medicine 3 times a day in order to avoid inflammation.
10. To prevent dental caries is easier than to treat it.
11. To prevent dental caries dentists recommend to use fluoride toothpastes.
12. Good tooth brushing habits are known to help avoid dental disease and have healthy teeth.

Exercise 3. Rewrite sentences using Complex Subject instead of clauses.

Model: It seems that he stole the money.

He seems to have stolen the money.

1. It seems that he knows everyone here.
2. Until the XXth century, it was considered that cardiovascular disease was not a serious problem.
3. It was reported that nearly a quarter of fatal attack victims were below age 65.
4. Researchers found that bacteria which cause gum disease can travel through the bloodstream.

5. It is likely that patients with gum disease more often suffer from narrowing of the arteries.
6. Many dermatologists believe that refined carbohydrates trigger inflammation in the skin.
7. The WHO experts suppose that the number of diabetics will double by 2030.
8. It is said that the first book devoted entirely to dentistry appeared in the XVI th century.
9. It is known that ancient Romans could make false teeth and even removable dentures from ivory.
10. It is considered that the hardness of porcelain is very high.

SPEECH EXERCISES

Exercise 1. Answer the questions to the text.

1. Where can we get medical aid?
2. What is the number of medical workers in our country?
3. What are state allocations for medicine used for?
4. Are medical check-ups carried out regularly?
5. How often must one undergo dental inspection?
6. What kinds of dental help are provided by polyclinics?
7. What are the problems the Russian medical science concentrates on?
8. Prevention is important, isn't it? Why so?

Exercise 2. Agree or disagree with the following statements, using the given phrases.

That is quite right (true), yes.

I'm afraid I can't agree with you here.

1. Medical care is very expensive in Russia.
2. Very little is done to increase the output of modern medical equipment.
3. It is easier to prevent a disease than to treat it.
4. No medical check-ups are carried out at polyclinics.
5. Dental care is not very important.

6. Neglected disorders cannot lead to complications.

7. Medical care is available to everybody in our country.

Exercise 3. Complete the sentences using the words in brackets.

1. Medical help in Russia is provided ... (where, when, whom by).

2. State health allocations make it possible ... (to do what).

3. Prophylactic check-ups are carried out... (where, how often, what for).

4. Prevention is very important because ... (what).

Exercise 4. Ask your fellow students questions using the words in brackets and making all the necessary arrangements.

1. Where (district, to be, your, polyclinic)?

2. How often (you, if, for, to undergo, a medical check-up, must)?

3. Who (your, to be, district doctor)?

4. What (you, to think, service, about, polyclinical, to do)?

Exercise 5. Act out the following situations.

You are talking to an English friend. Tell him/her about the health care in our country:

a) our polyclinical (out-patient) aid;

b) our hospital (in-patient) aid;

c) dental care;

d) prevention service in our country.

Lesson 17

At the Doctor's. Grammar: Indirect (Reported) Questions. The Complex Object with the Past Participle.

Exercise 1. Read and translate into Russian words of Latin and Greek origin.

occupation, neurologist, otolaryngologist, laboratory analyses, hospital treatment, local polyclinic, pulse, a correct diagnosis, doctor's instructions, to telephone, to hospitalise, to recommend, to measure, to administer (prescribe), temperature, necessary, patient, period, condition, injection, course

Exercise 2. Practice the pronunciation of the following words; use the dictionary.

tongue, regardless, headache, listen, heart, lungs, breastbone, chest, fatigue, electrocardiogram, measure, blood, pressure, antibiotic, mustard plasters, recover, diagnosis, injection, ambulance, follow

Exercise 3. Learn the active vocabulary to the text.

to have the right to - иметь право на

to fall (fell, fallen) ill - заболеть

to complain of, complaints - жаловаться на, жалобы

to feel one's pulse - сосчитать пульс

to listen to one's heart and lungs - выслушать сердце и легкие

to measure blood pressure - измерять кровяное давление

to take one's temperature - измерять температуру

to make a diagnosis, to diagnose - ставить диагноз

to prescribe (administer) - назначать соответствующее а proper treatment лечение

to be X-rayed - пройти рентгеновское

обследование

to take an electrocardiogram - снимать ЭКГ (ECG)

to give injections - делать уколы

blood (urine, stomach juice, etc.) - анализ крови (мочи, желудочного analysis сока и т.д.)

to receive (give) sick leave - получить (выдать) больничный

лист

to follow the doctor's - выполнять рекомендации instructions (admini- (назначения) врача

strations)

to follow a bed regimen - соблюдать постельный режим

(home treatment) (домашний режим)

to recover (to get well) - поправиться, выздороветь

a patient's case history - история болезни

to perform an operation - делать операцию

to consult a doctor - проконсультироваться с врачом

an ambulance - машина скорой помощи

Exercise 4. Translate the following word combinations into Russian before reading the text.

depending on, regardless of, income and occupation, both hospital and home treatment, in case of a cold, pills for headache, mixture for cough, to have a heart trouble

Exercise 5. Read and translate the following text into Russian.

AT THE DOCTOR'S

All citizens of Russia regardless of their income or occupation have the right to both home and hospital treatment free of charge.

If a person falls ill, he can go to a local polyclinic or call a doctor in. Many qualified specialists work in the polyclinic: therapists, neurologists, otolaryngologists, eye specialists, surgeons and so on.

During a medical examination a doctor usually asks the patient what he complains of. A patient may complain of a bad headache or cough and pain in the throat in case of a cold; of pain in the chest and behind the breastbone, early fatigue if he has a heart trouble, etc. When examining the patient, the doctor looks at his tongue, feels his pulse, listens to his heart and lungs, measures his blood pressure and, if necessary, asks him to have his temperature taken. After that the doctor makes his diagnosis and prescribes a proper treatment. The doctor may prescribe pills or powders for headache, mixture for cough, antibiotics or cardiacs, injections or mustard plasters, depending on the kind of a disease the patient has.

Laboratory analyses of blood, urine, gastric juice, and others help the doctor to make a correct diagnosis. The patient may be recommended to be X-rayed or have his electrocardiogram taken.

For the period of his disease the patient is given sick-leave. If the patient's condition is very poor and he has to follow a bed regimen, a nurse calls on him to give injections or carry out any of the doctor's administrations. If

the patient follows the doctor's instructions, he recovers very soon. All the patient's complaints and everything about the administrations, changes in the patient's condition and course of the disease are written down in the patient's case history.

If the patient needs hospitalisation, the doctor telephones the emergency department and the patient is taken to the hospital by an ambulance.

Take care of your health! If you do not feel well, you should consult a doctor at once.

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

иметь право на, заболеть, жаловаться на, жалобы больного, медицинский осмотр, сильная головная боль, простуда, быстрая утомляемость, боль в груди и за грудиной, прощупать пульс, выслушать сердце и легкие, измерить кровяное давление, измерить температуру, назначить лечение, история болезни, независимо от, в зависимости от, таблетки от кашля (головной боли), выполнять назначения врача, выздоравливать

Exercise 2. Translate the sentences from the text «At the doctor's» into Russian.

1. All citizens of Russia regardless of their income or occupation have the right to both hospital and home treatment free of charge.
2. If necessary, the patient may be recommended to be X-rayed or have his ECG taken.
3. The patient's complaints and everything about the course of the disease are written down in his case history.
4. A patient may complain of a bad headache or cough and pain in the throat in case of a cold; of pain in the chest and behind the breastbone, early fatigue if he has a heart trouble, etc.
5. When examining the patient, the doctor looks at his tongue, feels his pulse, listens to his heart and lungs, measures his blood pressure and, if necessary, asks him to take his temperature.
6. The doctor may prescribe pills or powders for headache, mixture for cough, antibiotics or cardiacs, injections or mustard plasters, depending on the kind of a disease the patient has.
7. If the patient's condition is very poor, a nurse calls on him to carry out the doctor's administrations.

Exercise 3. Fill in the gaps with prepositions where necessary.

1. Regardless ... their income or occupation all citizens of Russia have the right... both home and hospital treatment.
2. If the condition ... the patient is poor and he cannot go ... the polyclinic himself, he can call ...a doctor.
3. During a medical examination the doctor looks ... the patient's tongue, feels... his pulse, listens ...his heart and lungs, measures ...his blood pressure.
4. If the patient follows a bed regimen, a nurse can call... him to carry ... all the doctor's administrations.
5. A patient may complain ...a bad headache, pain in the throat or in the chest and ... the breastbone, etc.
6. The doctor prescribes a treatment depending ... the patient's condition.

GRAMMAR EXERCISES

Exercise 1. Translate into Russian paying attention to the Complex Object with Past Participle (after the verbs «to have*», «to get*»).

1. He will have his analysis made tomorrow.
2. I must have my hair cut.
3. She has had a heart attack, she must have her ECG taken at once.
4. You must get the books brought here without delay.
5. The wounded man had his leg amputated.
6. The doctor said the tooth could not be stopped, so I had to have it extracted.

Exercise 2. Form indirect questions according to the model.

Model: Where is an X-ray room in this polyclinic? Will you tell me where an X-ray room is.

1. What are you ill with?
2. What must I do if I have a very high temperature?
3. Why must I keep to bed?
4. Why should he take this medicine?
5. When must I come next time?
6. What must she do to recover sooner?

7. How many times is she to take this medicine?
8. How often will the nurse come for injections?
9. Is the doctor's name «Ivanov»?

Exercise 3. Explain, why in the following sentences it is preferable to use the Complex Object with Participle I than with the Infinitive. Translate the sentences.

1. The mother woke up because she heard her little baby crying.
2. We saw the plane landing.
3. The patient said that he felt the pain irradiating to the left shoulder.
4. The nurse had to return to the ward as she heard someone calling her.
5. When he was passing near the intensive care ward, doctor Manson heard someone coughing.
6. He remembered that he had heard her singing at an evening party at school.
7. She looked out of the window and saw the children running towards the house.
8. The nurse heard the patient moaning and thought that it was time to give him another injection.

Exercise 4. Report these questions and thoughts, using the verbs suggested.

1. «*Where are you going?*» He asked me...
2. «*When did you last see a dentist?*» The nurse asked the patient...
3. «*Can I use your phone?*» The girl asked me...
4. «*Why are you late?*»
The teacher asked the boy...
5. «*Do you know where the nearest pharmacy is?*» A man asked a passer-by...
6. «*Do I have enough money to buy the ticket?*» He wondered...
7. «*How many times a day do you recommend to brush teeth?*» We asked the dentist...
8. «*When will you be back?*» I'd like to know...
9. «*Why did she ask me about it?*» I wondered...
10. «*How is your wife?*» Henry asked his friend...

11. «*Can you help me?*»

He asked the nurse...

12. «*How long do I have to take this medicine?*» I asked the doctor...

SPEECH EXERCISES

Exercise 1. Answer questions to the text.

1. What right do all citizens of Russia have?
2. If a patient falls ill, he can call in a doctor, can't he?
3. Many specialists work at every polyclinic. What are they?
4. What do patients usually complain of in case of a) a cold, b) a heart trouble?
5. What does a doctor do during a physical examination?
6. What helps the doctor to make a correct diagnosis?
7. In what cases are patients given sick-leave?
8. What is done if the patient needs a hospital treatment?

Exercise 2. Read the dialogue and retell it in the Past Indefinite Tense on behalf of a) Mary and b) her doctor.

Mary is going to consult a doctor because she doesn't feel well. Dr. Mathews, a well-known lung specialist, has his consulting room in Harley Street. Mary has an appointment with him today at 4 p.m.

Dr. Mathews (D): Come in, please, and tell me what your trouble is. Mary (M): I haven't been feeling well for some time, lost my appetite and

cough badly. D: When were you last X-rayed? M: It was about two years ago.

D: All right, let me see your tongue and your throat. Have you taken your temperature? M: It's normal.

D: Will you let me listen to your heart and chest? That's all right. Well, it looks like bronchitis. You must have caught a bad cold. You'd better have another X-ray. Drink plenty of milk, eat lots of fresh fruit, dress warmly, get plenty of sleep and take good care of yourself. I'll prescribe a bottle of medicine and a box of pills to take three times a day after meals. If you don't feel better after taking the medicines, come again and let me have a look at you.

M: All right, doctor. Thank you very much.

Exercise 3

A) Read and translate the dialogue paying attention to the word combinations in bold type. Work in pairs.

Doctor: What's the trouble?

Patient: Well, I don't know what the matter with me is, but I've been sleeping very badly lately and I've lost three kilos during this week.

D.: Have you been working very hard?

P.: I had some urgent work to do and I had to keep late hours as I was short of time.

D.: Well, strip to the waist, please. I'll sound you. (Sounds his chest).

Your heart is very good. Let me feel your pulse. It's quite normal. I think you

must have a good rest. Do you smoke, by the way? P.: Sorry to say, but I do.

About twenty cigarettes a day. D.: You must cut it down by half at least. Then take a leave and get to some

quiet place. I'm sure that fresh air, a change of surroundings will do you

a lot of good. P.: Will you prescribe me some medicine?

D.: I'll give you some sleeping pills. Take them for a week. But I've already said that the best remedy for you will be a good rest somewhere in the country. P.:

Thank you, doctor. I'm sure to follow your advice. Good-bye.

B) Make up similar dialogues. Use one of the situations below:

- imagine you have a terrible headache and that's why you are worried about your health, doctor gives you some useful advice;
- imagine you are a doctor and you have to persuade your patient to undergo a regular medical examination;
- imagine you are a doctor and your patient is against taking any medicine, what can you advise him.

Exercise 4. Prepare the following topics on your own.

a) My visit to a doctor.

b) Polyclinical aid in our country.

c) Imagine you're a district doctor. Speak about your work. Exercise 5. Read the text and do exercises A and B that follow it.

THE NATIONAL HEALTH SERVICE OF GREAT BRITAIN

The British National Health Service came into existence in 1948, to give completely free medical treatment of every kind to everyone needing it. Since then some payment has been brought in for one item after another, beginning from 1951 when patients had to pay a small fixed amount for pills or medicine prescribed for them. Children, pregnant women, old people and the poor were exempted from some of these charges, but in 1988 the Government began to abolish some general exemptions for pensioners.

People who are ill go first to see their general practitioners (GPs), who treat minor illnesses themselves. These family doctors work alone or in partnerships with surgeries or bigger urban medical centres, and when necessary go to see patients in their homes. Everyone is normally on the list of a

general practitioner (or family doctor), who keeps full records of all treatments and over the years gets to know 2,000 or more people on his or her list.

General practitioners refer people to hospital, if necessary, for more specialized treatment, also free of charge both for outpatients and for those who have to stay in hospital.

Most dental treatment is carried out in the dentists' surgeries though difficult cases are sent to dental hospitals. The dentists are paid from health service funds for each item of treatment. At first their patients did not have to pay, but later payment became necessary, and now people must pay even for checkups. Only children and few other groups of the population are exempted.

Note:

exempt - освободить от оплаты

A) Find the English equivalents in the text to the words and word combinations below.

начать существование, предоставить полностью бесплатное лечение, заплатить небольшую фиксированную сумму денег за что-либо, быть освобожденным от этих расходов, аннулировать привилегии по оплате для пенсионеров, врач-терапевт, городской медицинский центр, вести подробные записи обо всех назначениях, поликлиника, проводить лечение зубов, осмотр

B) Use necessary prepositions.

To come existence; to give medical treatment every
kind; to pay some amount of money in; to be exempted from
some charges; to be on the list of a GP; to refer somebody to
hospital; to stay in hospital; to be divided into 10 districts.

Lesson 18

At the Dentist's. Dental History. Grammar: The Use of Present Simple in IF and WHEN-clauses to Denote a Future Action

Exercise 1. Read and translate into Russian the following words and word combinations of Latin and Greek origin.

dental inspection, orthodontics, to consult an orthodontist, to drill, cavity, abscess, to diagnose, crowns, prosthetics department, dental mechanic, malocclusion, hygiene, to protect

Exercise 2. Practice the pronunciation of the following words.

toothache, trouble, aching, decayed, gone, neglected, put, pull, artificial, dentures, false, mechanic, overcrowded, malocclusion, deaden, pain, hygiene

Exercise 3. Learn the active vocabulary to the text.

dentist - стоматолог

dental therapist - стоматолог-терапевт

oral surgeon - хирург-стоматолог

to have some trouble with a tooth - что-то беспокоит (о зубах)

to become loose - расшатываться

to undergo a dental inspection - пройти осмотр стоматолога

a tooth is neglected (far gone) - зуб запущен

to cleanse a tooth - почистить зуб

Note:

exempt - освобождать от оплаты

A) Find the English equivalents in the text to the words and word combinations below.

начать существование, предоставить полностью бесплатное лечение, заплатить небольшую фиксированную сумму денег за что-либо, быть освобожденным от этих расходов, аннулировать привилегии по оплате для пенсионеров, врач-терапевт, городской медицинский центр, вести подробные записи обо всех назначениях, поликлиника, проводить лечение зубов, осмотр

B) Use necessary prepositions.

To come _existence; to give medical treatment _every kind; to pay some amount of money _pills; to be exempted _some charges; to be _the list of a GP; to refer somebody _hospital; to stay _hospital; to be divided _10 districts.

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to become loose - расшатываться

to undergo a dental inspection - пройти осмотр стоматолога

a tooth is neglected (far gone) - зуб запущен

to cleanse a tooth - почистить зуб

to drill a tooth - сверлить зуб

to put in a filling - поставить пломбу

(to stop a tooth, to fill a tooth)

to pull out (extract) a tooth - удалить зуб

to deaden pain - обезболить

dentures / false teeth - искусственные зубы

crown - коронка

bridge - мост

outstanding / instanding teeth - прогнатия, прогения

overcrowded teeth - скученные зубы

malocclusion - неправильный прикус

to correct malocclusion - исправить неправильный прикус

prosthodontist - протезист

orthodontist - ортодонт

dental mechanic/prosthetist - зубной техник, протезист

Exercise 4. Read and translate the text into Russian.

AT THE DENTIST'S

Every citizen of Russia undergoes regularly dental inspection and treatment in district dental polyclinics. There are three main departments in such polyclinics: a department of therapy, oral surgery and orthodontics and prosthetic dentistry department. Some laboratories and X-ray rooms are also attached to every dental polyclinic.

If you have some trouble with your tooth or a bad toothache you should consult a dentist. He will examine your teeth and if the aching tooth is not far gone he will stop it. He'll clean and drill your tooth and then put in a filling. If your cavity is neglected (far gone) and it hurts you the dentist will treat your tooth. In case the tooth is too bad to be stopped or treated, the dentist will pull it out (extract a tooth). Before extracting a tooth he will apply some anaesthetic or give an injection to deaden the pain.

If you have some inflammation or an abscess in your mouth, if the teeth become loose and gums bleed, you should consult an experienced specialist. He will diagnose your case and prescribe a proper treatment. If an operation must be performed in the mouth cavity, a qualified oral surgeon will operate on you. If you need dentures, bridges, some false teeth or crowns you must consult a dental mechanic and he will do everything you need. If you have instanding or outstanding teeth, overcrowded teeth or malocclusion, you must consult an orthodontist and get it corrected.

Regular visits to a dentist, once or twice a year, proper oral care and good eating habits (a limited consumption of sweets in the first place) will protect you from many dental diseases.

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

пройти осмотр стоматолога, терапевт-стоматолог, хирург-стоматолог, зуб запущен, почистить (посверлить) зуб, запломбировать зуб, удалить зуб, искусственные зубы, коронки, мосты, прогнатия / прогения, неправильный прикус, ортодонт, протезист

Exercise 2. Give the synonyms for.

to stop a tooth, to extract a tooth, a tooth is far gone, if, a dental examination, an aching tooth, to prescribe a treatment

Exercise 3. Rephrase the parts in bold type in the following sentences. 1. One must undergo dental inspection once or twice a year.

2. If a tooth is not far gone the doctor will treat it.

3. The dentist will not put in a filling today, he will do it in two days.

4. This tooth can't be stopped, it must be pulled out.

GRAMMAR EXERCISES

Exercise 1. Translate the following sentences paying attention to the use of tenses in IF and WHEN-clauses.

1. If the weather is good on Sunday, we will go to the country.

2. When we get back home, it'll be dark already.

3. The doctor will make his diagnosis, when he has all the laboratory findings.

4. If you consult your dentist regularly, you will have no dental diseases.
5. If you can't come tomorrow, you will have to come next week.
6. You needn't worry. If the tooth can be treated, nobody will extract it.
7. I don't know when he will come.
8. I wonder when he will come.
9. Nobody can say if the train will arrive at 10 or 11 a.m.

Exercise 2. Open the brackets using correct forms of the verbs.

1. Surgeons (extract) teeth that cannot be (treat).
2. The examination of the oral cavity (perform) by the prosthodontist when people want denturues.
3. Bridges, crowns, dentures and artificial teeth (make) of different materials now.
4. Oral therapy (include) such procedures as cleansing and drilling a tooth before filling it in.
5. To have healthy teeth people must (undergo) dental examination once or twice a year.

Exercise 3. Translate the following sentences into English.

1. В стоматологических поликлиниках работают разные специалисты: терапевты, хирурги, ортодонты и протезисты.
2. Если у Вас болит зуб, Вам следует обратиться к терапевту-стоматологу.
3. Если зуб не запущен, его можно вылечить, т.е. почистить, посверлить и поставить пломбу. Запущенный зуб обычно удаляют.
4. При удалении зубов применяется анестезия. Хирург делает обезболивающий укол.
5. Чтобы не было проблем с зубами, посещайте стоматолога один или два раза в год для профилактического осмотра.

SPEECH EXERCISES

Exercise 1. Answer the questions to the text «At the dentist's*».

1. What departments are there in a stomatological polyclinic?
2. What must a person do if he has a bad toothache?

3. What does a dentist begin his examination with?
4. What does he do if a tooth can be treated?
5. And what about the cases when a tooth is far gone?
6. What conditions need surgical treatment?
7. In what cases do people have to consult an orthodontist?
8. What is the primary cause of many dental diseases?
9. What kind of orthodontic and prosthetic services are available at our dental polyclinics?

Exercise 2. Agree or disagree with the following statements using the phrases.

Model: Yes, that's right (true). No. I don't think so.

1. There are no stomatological clinics in Russia, are there?
2. Before extracting a tooth a surgeon gives a patient some anaesthetic, doesn't he?
3. If a tooth is not too bad it must be pulled out, mustn't it?
4. If you need artificial dentures or crowns you must consult a dental surgeon. Isn't that so?
5. Too much sweets will do your teeth no harm, will they?
6. Proper oral hygiene and good eating habits are not important for the development of dental diseases, are they?

Exercise 3. Ask your dentist about.

WHY your tooth hurts you so much

WHETHER (IF) your tooth can be treated or not

it can be filled or not

it must be extracted WHERE you can find the laboratory

HOW LONG it will take you to have your teeth treated

WHEN you must come next time

WHAT you must do to protect yourself from tooth decay

Exercise 4. Read the dialogue and be ready.

- 1) to speak on behalf of a) a doctor, b) a patient;

2) to act out the situation, retell it in indirect speech.

A DIALOGUE

Doctor (D): How do you do, Mr. N.? What can I do for you?

Patient (P): I've got a bad tooth that aches all day and night.

D: Let me have a look at it. Well, I'm afraid it's too late to have it filled, the only thing I can do now is to extract it.

P: (pretending to be calm): All right, Doctor, but not without an injection. D: (filling a syringe and getting his instruments ready): Certainly, Mr. N., it won't hurt at all, just keep your mouth wide open.

D: (gives Mr. N. an injection in the gum, waits a couple of minutes, gets hold of the tooth and extracts it): It's all over. Was it so bad? P: (with a sigh of relief): Not at all, thank you very much.

Exercise 5. Try to complete the dialogue below using the Active Vocabulary.

Patient: ...

Doctor: How do you do. What's the trouble? Patient: ...

Doctor: Well... Take this chair... Open your mouth, please. Here is a cavity that needs filling. Patient: ...

(The doctor is treating a cavity.)

Doctor: Now it won't give you any more trouble.

Patient: ...

Doctor: Goodbye.

Exercise 6. Read and translate the article from the newspaper into Russian. Answer the questions after the article.

HOW HALF OF DENTISTS TURN THEIR BACKS ON NHS PATIENTS

More than half of English dentists have closed their doors to NHS patients, a survey reveals.

The research found 51 per cent of dentists were only taking on patients if they agreed to go private.

In some areas, the situation is so bad that only 15 per cent of dentists are taking on NHS patients, the study by consumer magazine «Which?» showed.

The research comes a week after Tony Blair admitted for the first time, that Labour had broken its pledge to ensure everyone had access to an NHS dentist.

Liberal Democrat health spokesman Norman Lamb said the figures showed NHS dentistry is 'becoming a thing of the past'.

'What is most worrying is that many people on low incomes are effectively excluded from dental care' he added.

'One 80-year-old woman who came to me needed teeth taking out and new false teeth putting in.'

'She was told that would cost between 500 and 800 to have done privately - because she can't get an NHS dentist.'

Researchers from «Which?» posing as potential patients contacted 466 dentists.

The survey showed the worst area for access was the North West, where only 13 per cent of dentists are taking on NHS patients.

Following closely behind were Yorkshire and the Humber on 15 per cent, and 16 per cent in the South Central region. The best areas for NHS dentists were the West Midlands, on 63 per cent, and London on 59 per cent.

Those living in rural areas suffer the most - just 16 per cent of dentists in the countryside provide NHS treatment, compared with 39 per cent in towns and cities. The situation was even worse for NHS emergency appointments, which were offered by only 5 per cent of dentists in the North West and South West.

Last month a survey by Citizens Advice found around two million people in England who would like access to NHS dentistry are unable to do so. Two thirds of them simply go without treatment rather than going private.

Recent surveys by «Which?» have also highlighted patients' dissatisfaction at the state of the rest of the health service.

Only 18 per cent were happy with the quality of hospital food, with 29 per cent of patients - and 57 per cent of new mothers - feeling hungry after meals. Another survey of 2000 patients found many did not know where to turn for out-of-hours care, with only two in five calling the NHS Direct helpline.

Frances Blunden of «Which?» said: The Government has allocated enormous amounts of money into the NHS but on the ground the public are seeing cuts in services and considerable difficulties getting treatment.

'In dentistry we have found that where needs are not currently being met, people are either putting off having treatment or are being forced to go private.' Tory health spokesman Andrew Lansley said: 'After ten years of Labour's financial mismanagement patients are being told they can't have operations, nurses are on the brink of strike action, maternity units and accident and emergency are being threatened with closure, and 10 000 talented junior doctors are left without jobs'. Tony Blair and health secretary Patricia Hewitt are due to defend their record in front of the King's Fund think tank today.

Notes:

go private - *зд.* получать лечение платно, частным образом

the NHS - the National Health Service - Национальная служба

здравоохранения health spokesman - представитель (партии) по вопросам

здравоохранения think tank - *зд.* группа разработчиков

1. Is it easy for patients to receive NHS dental treatment?
2. Do dentists eagerly take NHS patients?
3. Is the situation the same in all areas of England?
4. What is the situation with people on low incomes?
5. Can people get emergency NHS dental treatment?
6. Are there many people in England who would like to have access to NHS dentistry?
7. What do people think about having to go private?
8. Are people satisfied with the quality of in-patient hospital treatment?
9. Does the Government do much to improve the situation?

Exercise 7. Translate Part 1 of the text «Making Clinical Decisions* using a dictionary if necessary.

a) Before you start try to give good Russian equivalents for the word combinations given below paying special attention to words in italics.

b) Answer the questions that follow the text.

to attend a dentist, to attend for treatment, to *seek/accept* one's advice, to feel *detached* from (the process), to *manage* one's health, without

this *involvement* by the patient, to *encourage* the involvement of patients, the *shared* involvement, *along with this* comes the responsibility, in the final analysis, to make *sacrifices* of (time, effort, finance), *shortly*, this *engenders* trust in patients, *once* the professional-client relationship *breaks down*, the *management* of a condition, a large part of the chapter is *taken up* with..., to enable a dentist (to give advice), to take a much more *substantial* decision, in many cases, *judgment is needed* to be applied, if a diagnosis is *straightforward*, the process could *be undertaken* by computers, clinicians *seek second or even third opinions*, to adopt some *middle course*, to reach a final decision *as to* the best advice to offer the patient

MAKING CLINICAL DECISIONS Part 1

WHO MAKES THE DECISION?

Gone are the days when most patients attended their dentist or other professional adviser, sought and accepted his or her advice without question, and felt almost detached from the process. Although patients used to do

things «under doctor's orders», many now take a much more lively interest in the management of their own health. Along with this involvement, which many patients seek and which should be encouraged in those who do not, comes a responsibility for participating in decisions about their own welfare. In the final analysis, it is patients who will decide whether they will attend for treatment, whether they will clean their teeth effectively, and what sacrifices of time, effort, and finance they are prepared to make.

A dentist's role is to offer advice and, if the advice is accepted, provide treatment. This advice can usually be classified as follows:

- diagnosis
- prognosis
- treatment options
- prevention of further disease.

These matters will be dealt with in more detail shortly, but first it is necessary to understand the nature and status of this professional advice.

The professional-client relationship is special in that professional people take upon themselves the duty of setting their client's interests above their own. It is this aspect of professionalism which engenders trust in patients and explains, why they

so often accept the advice of the dentist. Once this professional relationship begins to break down, as it does if the dentist puts his/her own interests before that of the patient then the patient's confidence is lost and he/she begins to mistrust the dentist's advice.

In order to give advice the dentist will need information, and a large part of the chapter is taken up with describing what this information might be, and how it should be collected and collated. In some cases this information alone will be enough to enable the dentist to give advice and take a decision. However, in many cases another element, judgment, will need to be applied. If all diagnosis and treatment planning were straightforward, so that a given set of facts always resulted in the same treatment plan, the process could, and by now probably would, be undertaken by computers. Judgment based on the clinician's own experience and that of others is a second element in the essential nature of a professional person. Using the terminology of British law, some of these judgments can be made «beyond reasonable doubt* but others have to be made «on the balance of probability*. It is the skill and care with which these judgments are made that distinguishes the really good dentist from the merely good dentist. In difficult cases many experienced clinicians seek second or even third opinions, discussing the case with colleagues before reaching a final decision as to the best advice to offer the patient.

Many decisions are rather routine in their nature and become automatic with practice, rather like the subconscious decision to press the accelerator

to drive the car faster. While learning to drive, this decision, like many similar decisions in dentistry, has to be considered consciously. Other decisions may be slightly more difficult, such as whether all the dentine caries in a tooth must be removed and whether fissure caries has extended to the point where it should be restored or not, these decisions are always made at the conscious level. Then there are the much more substantial decisions which sometimes have to be made - for example, whether to advise a patient to have all his or her teeth extracted, or to have them all crowned or extensively restored, or to adopt some middle course of a few extractions with a simpler level of restorations and perhaps a partial denture.

THE FOUR MAIN DECISIONS

Diagnosis

Diagnosis is the recognition of a disease. Sometimes a bald statement of the diagnosis is sufficient, or example, amelogenesis imperfecta. In most cases,

however, the diagnosis should include the extent, location, and other characteristics of the disease. For example, a diagnosis of caries or periodontal disease is not enough without describing where it occurs and how extensive it is.

Prognosis

The prognosis of a condition is the estimate of what will happen if it is not treated and what the consequences of treatment will be. Therefore the prognosis for an early enamel carious lesion is good if appropriate preventive measures are taken, whereas the prognosis for maintaining the vitality of the pulp if caries is so extensive that symptoms of pulpitis arise is poor. However, in the latter case, if other conditions are favorable, the prognosis for keeping the tooth if root canal treatment is carried out is good.

Treatment options

This often seems to be the most important decision, particularly for the patient, in that it affects what will be done. However, it is based so fundamentally on the first two decisions, diagnosis and prognosis, that it is, in reality, no more important, and often less so, than they are.

Further preventive measures

The long-term success of treatment is dependent in many cases on the patient's willingness and ability to co-operate in preventing further disease. A decision about the likelihood of this being effective should be attempted before the definitive treatment plan is decided, in particular if extensive treatment is contemplated. Thus the aim of an initial treatment plan may be to stabilize active disease, assess its cause, and start preventive measures.

The patient's response to this initial treatment will be an important factor when planning subsequent care. Questions:

1. What must a diagnosis be based on?
1. In what cases is prognosis good and when can it be poor?
2. How important is treatment compared to diagnosis and prognosis?
3. What does the success of a treatment depend on?
4. When should a definitive treatment plan be decided?
5. What may the aim of an initial treatment plan be?

Exercise 8. Read and translate Part 2 of the above-mentioned text so as to be able to sum up the aide-memoire for the history and examination of a new patient.

Part 2

THE INFORMATION NEEDED TO MAKE DECISIONS AND HOW IT IS COLLECTED AND RECORDED

Part of the skill of an experienced clinician is to decide what information is needed, and to acquire it accurately and rapidly so that he or she is in the best position to give good advice without undue delay. Some clinicians adopt a «data gathering*» approach in which, using check-lists, they try to accumulate all the information which would conceivably be of some relevance about a patient.

Some information is essential for all patients, some is useful for most, and in others a very detailed investigation of a narrow field of interest is necessary in order to reach a diagnosis or make one of the other decisions outlined above. Figure 1 shows a list of information which may be helpful to a student when first meeting patients. It is not meant to be followed slavishly but it is a useful aide-memoire for the inexperienced.

However, it is dangerous to begin the examination of a patient without first ensuring that it will pose no risk to either the patient or the dentist. For this reason a full medical history should be taken before the examination, irrespective of any other history.

Lists such as the one in Figure 1 are oversimplification and suggest that the entire history should be taken first, followed by the examination of the patient. Some dentists even do this in two separate areas of the surgery, attempting to separate the conversational and clinical aspects of the process. This is often not practical and indeed may be undesirable. It is much better to mix the two processes together and maintain a steady conversation with the patient before, during, and after the examination, pausing to take notes or, better still, dictating them to the dental nurse or onto a tape as the process continues.

The reason for this is that until the dentist has made an initial examination of the mouth it is often not possible to tell what detailed line of questioning to pursue. For example, if the patient complains of discolored teeth, a quick examination will show whether this is surface or intrinsic stain. If it is surface stain there is no need for questioning on the administration of tetracycline in childhood or the ingestion of excessive fluoride. Another common example is the patient who complains about his teeth «crumbling away». This may be the result of caries and failing

restorations, tooth wear, or a developmental defect. Again, a quick examination will show which approach to the dietary history is likely to be most helpful - to pursue a detailed history relating to sugar or a detailed history relating to erosive materials - or whether, if it is a developmental disturbance, diet has no bearing on the matter at all. It is necessary here to describe the history and examination process in some sort of order, even if this order will seldom be followed comprehensively in practice.

Exercise 9. Read and translate Part 3 of the text. Before you do, translate the following sentences.

1. This information is essential and it should always be checked for accuracy.
2. The patient's occupation may have a bearing on the condition itself (for example, industrial erosion) and may affect availability for treatment.
3. Direct questioning is usually unhelpful while attitudes may become apparent during conversation, particularly when past dental treatment and experience are discussed.
4. A question such as 'Do you think you have a sweet or a sour tooth?' can often elicit valuable information about attitudes as well as facts.
5. This is an example of how history and clinical examination go together to produce information relevant to the particular patient.
6. Any apparent discrepancy between what patients say that they do when they clean their teeth and the clinical condition may be cleared up by asking them to bring brush and paste to the surgery.
7. Previous treatment indicates susceptibility to disease as well as attitudes towards dental care.
8. It is thus possible to build up a picture of past dental history which may include caries experience, restorative treatment received, susceptibility to periodontal disease, etc.
9. Attitudes to dental health, either positive or negative engendered within the family may have an important bearing on the condition with which the patient presents. The same is true of the patient's social background.

HISTORY	EXAMINATION	SPECIAL TESTS
C/O HPC Commencement Location Type Incidence Duration Initiating factors Relieving factors PDH Current treatment Regularity of visits Treatment received <i>Ortho</i> <i>Perio</i> <i>Cons</i> <i>Surgical and why</i> <i>Prosth</i> Advice on prevention Fluoride GMH Rheumatic fever Heart disease Chest disease Jaundice or hepatitis Medication and drugs Allergies Abnormal bleeding Hospital admissions Operations Other serious illnesses Abnormal reaction to anaesthetic Pregnancy Contact with HIV or AIDS SH Work Time to travel Availability for treatment HABITS OH Diet Smoking Alcohol Bruxing, clenching	Extra-oral Symmetry Lips Nodes TMJ Intraoral <i>Mucosa</i> cheeks palate tongue floor of mouth edentulous ridges sulci <i>Periodontium</i> gingivae oral hygiene calculus pockets mobility periodontal charts Teeth overall assessment; caries, tooth wear and restoration status; comments specific to one tooth caries chart Occlusion intercuspal position retruded contact position lateral excursions protrusion fremitus faceting Prosthesis type, material, support teeth replaced appearance tooth wear retention, stability	Vitality Radiographs Study models Diet analysis
		KEY
		C/O Complaining of HPC History of present complaint PDH Past dental history GMH General medical history SH Social history

Fig. 1. Aide-memoire for the history and examination of the new patient.

Part3

CASE HISTORY

About the patient

Name, address, telephone and Fax numbers

This information is essential and it should always be checked for accuracy. It is quite possible to have two people with the same name in the waiting room or the practice, and only careful and routine checking will prevent serious mistakes being made.

Age, sex, occupation

Age will have considerable bearing on the state of dental development in younger patients and is important for a variety of reasons at other ages. The patient's sex usually has no bearing on the treatment advised, although it is usually recorded to avoid confusion. It should not be assumed that female patients are more concerned with their appearance than male patients. The patient's occupation may affect availability for treatment.

Attitude and motivation to dental health and treatment

Whereas information about age and occupation is easily obtained by direct questioning, assessment of attitude to dental health and motivation is more difficult. Direct questioning is usually unhelpful because the patient will tend to answer the questions in a way which will «please» the dentist. However, attitudes may become apparent during conversation, particularly when past dental treatment and experience are discussed.

Diet

Since diet plays a major role in dental caries and can be of importance in tooth wear, a discussion about diet is often useful. A question such as «Do you think you have a sweet or a sour tooth?» can often elicit valuable information about attitudes as well as facts. For instance, the way that the patient answers such questions may reveal whether he or she appreciates the relevance of diet to dental disease and whether modification of diet has been tried in the past. However, a detailed examination of diet is reserved for those with specific caries or tooth wear problems which will only become obvious after clinical examination go together to produce information relevant to the particular patient.

Habits

It is useful to enquire about tooth cleaning habits and the toothpaste used, but other habits may also be relevant; for example, smoking will increase the likelihood of surface stain on teeth. Following clinical examination further questions may be needed; for example, a particular pattern of tooth wear may suggest questions about grinding habits, an erosive diet, or alcohol consumption.

Any apparent discrepancy between what patients say that they do when they clean their teeth and the clinical condition may be cleared up asking them to bring brush and paste to the surgery.

Willingness to meet fees and other expenses

Most dental treatment involves the patient in some expense. Usually it is not possible to estimate the fee or the amount of time involved until an outline treatment plan is established. Sometimes this «ideal» outline plan will be too costly for the patient and an alternative might have to be sought. It is important to establish this at an early stage before too much time is spent in detailed planning.

About the patient's general condition and health

Here a check-list is useful and questions are usually asked, and followed up when necessary, about the following:

- history of heart or chest disease
- current (or recent) medication
- allergies
- any difficulty in the arrest of hemorrhage after extraction or injury
- previous hospital admissions
- other diseases
- pregnancy
- contact with HIV or AIDS

When these questions are answered positively it may be necessary to refer to the patient's general medical practitioner or to arrange further investigations (for example, blood tests) before proceeding with treatment.

The patient's reason for attendance

Some patients have an urgent problem such as pain or trauma, while other attend for a routine examination without particular symptoms. When symptoms are present the patient should be encouraged (without the use of leading questions) to describe these as clearly and in as much detail as possible.

Past dental history

A patient's past dental history can be of considerable assistance. Previous treatment indicates susceptibility to disease as well as attitudes towards dental care. For

instance, the question «Have you had many fillings done?» may lead the patient to explain that most teeth have been restored. If this question is then followed up by asking whether most of the fillings are old

or whether they have to be replaced regularly, the information obtained may indicate whether the patient is currently a high caries risk. It is thus possible to build up a picture of past dental history which may include caries experience, restorative treatment received, susceptibility to periodontal disease, periodontal treatment received, extractions and the reason for the loss of the teeth, and information about prosthetic replacements.

Family and social background

Where an inherited condition is suspected, clearly the distribution within the family is important. In other cases attitudes to dental health, either positive or negative, engendered within the family may have an important bearing on the condition with which the patient presents or upon acceptance of treatment. The same is true of the patient's social background. Other aspects of the social history - for example availability for long appointments - will also determine the type of treatment.

Exercise 10. Translate Part 4 of the text into Russian. Complete sentences that follow it with words and expressions from the text that are given in brackets.

Part 4

EXAMINATION

General appearance

The patient may appear nervous or relaxed, fit and well or elderly or ill, clean and tidy or dirty and disheveled. These or similar observations will guide but should not dictate treatment. It takes time to get to know people and instant judgments are unwise. For instance, a neglected general appearance does not necessarily mean that the person does not care about his dental health.

Factors which predispose to cross-infection

Some people - for example, drug addicts, homosexuals, or heavily tattooed patients - are more likely to be carriers of the hepatitis B virus and HIV (human immunodeficiency virus).

The extra-oral facial appearance

The temporomandibular joint and lymph nodes should be palpated. Any obvious asymmetry is noted and the lips are examined. Such things as injuries or scars on the lips may be accompanied by dental injuries. Where the patient's problem involves appearance, the dentist will make his or her own assessment of this while listening to the patient.

The mouth in general

Oral hygiene is relevant in both periodontal disease and caries. A general impression of whether the mouth is well cared for by both the patient and previous dentists is useful, but patients do sometimes increase their dental awareness considerably and previous neglect need not imply future neglect.

Specific areas of the mouth

The soft tissues

A routine examination of the inner aspects of the lip, the tongue, and the buccal and lingual sulci should be made at all examinations since, amongst other things, early neoplastic change can be detected and early treatment can be life-saving.

The periodontal tissues

A general assessment of the state of periodontal health is always necessary. This will include oral hygiene; the presence of both supra- and subgingival calculus, the health and position of the gingival tissues, the presence of pockets, and whether there is bleeding on probing and mobility of teeth. In many cases a more detailed periodontal examination needs to be undertaken.

Caries experience: past and present

Again, a general impression can be gained of the extent of carious lesions and previous restorations. It is reasonable to assume that restorations are most commonly the result of caries but, of course, other conditions may also have been responsible.

Other conditions affecting the teeth

These include trauma, tooth wear, dental defects, missing teeth, and malpositioned teeth.

The occlusion

First, the static relationship of the teeth in intercuspal position (ICP) should be examined to determine the horizontal and vertical overlap of the anterior teeth (overjet and overbite), together with the relationship of the posterior teeth. Next,

and perhaps more importantly, the way in which the teeth function against each other in forwards, backwards, and lateral movements of the mandible should be examined. This is often relevant to the decision as to how to restore a tooth. If a cusp functions vigorously against an opposing tooth when the jaw moves, then it may need protecting in some way by the restoration, but if it immediately discludes in all movements of the mandible, it may not.

Dentures

The presence and nature of dentures should be noted. It is important to decide whether dentures are satisfactory or in need of replacement.

Diet analysis

The past and present diet can be investigated by questioning and by completing a diet sheet.

Salivary analysis

In patients with a high caries incidence, the salivary buffering capacity may be tested. Also, counts of *Streptococcus mutans* and *Lactobacillus* in the saliva may be used to monitor the caries risk and the success of a caries prevention program.

Sentences to be completed:

1. It time to get to know people and instant judgments are .
2. Oral hygiene is in both periodontal disease and caries.
3. A general impression is useful, but patients do sometimes increase their considerably and previous neglect need not imply future neglect.
4. A examination of the mouth cavity should be made at all dental examinations since early treatment of some disease can be life-saving.
5. It is important to decide whether dentures are satisfactory or in need of .
6. In patients with a high caries , the salivary pH may be tested.

(routine, incidence, unwise, dental awareness, relevant, takes, replacement)

Exercise 11. Home Reading Material. Translate Part 5 of the text MAKING CLINICAL DECISIONS into Russian. Answer the questions that follow.

Part 5

THE HISTORY AND EXAMINATION PROCESS Examination Process

As stressed earlier, the full history is not usually completed before the examination starts. Although there are many variations, a common pattern of history and examination would proceed as follows:

- reason for attendance;
- medical history;
- initial preliminary examination;
- initial assessment of the patient's general oral and dental condition and the specific problem, if there is one;
- further conversation to effect more details of the symptoms (if there are any), and the background to the problem which is likely to be relevant - for example diet, social history, etc.;
- further detailed examination;
- general assessment of the patient's dental awareness and expectations;
- special tests;
- start the treatment planning process.

Whatever sequence is used for a particular patient, it is helpful if the findings are recorded in a systematic way. The record must always be made while the patient is present, and the need for a contemporaneous record cannot be overstressed both in the interests of accuracy and also for medico-legal reasons.

Planning the treatment

Treatment should follow a planned course in all cases. This is not to say that the plan is unalterable, and the temptation to write down a treatment plan as a prescription and then follow it without further thought or revision should be avoided. It is necessary to maintain constant vigilance for changes in the clinical circumstances, the patient's response to treatment, and the success of earlier stages in the treatment

The general approach to treatment planning should be one of problem solving. This seems obvious, but is not always as simple as it sounds. One set of circumstances - for example, a mild disturbance in the appearance of a tooth - might be a real problem to one patient, causing great distress, and yet go unnoticed by another.

Cosmetic problems like this can be regarded as the patient's problem and he or she will ultimately decide whether they want treatment or not. Other problems are more the dentist's. To continue with the same example, the dentist must decide between recommending a composite restoration (a facing of composite or porcelain, or a crown). The final decision is taken jointly between patient and dentist and illustrates another important principle of treatment planning. The patient must be properly informed about treatment alternatives and must give informed consent to the treatment.

Treatment plans can conveniently be divided into «simple» and «complex». A simple treatment plan is by far the most common and is all that is usually required for patient and recall visits, sometimes over many years of maintenance of a good standard of dental health. In such cases the dentist is monitoring health. However, there is a danger of both dentist and patient being lulled into a false sense of security, and it is important that at each re-examination relevant questions are asked and a proper examination made so that slow and steady development of periodontal disease or secondary caries is recognized.

A typical «simple» treatment plan would be as follows.

1. Reinforce oral hygiene procedures lingual to lower molars.
2. Scale and polish.
3. Replace stained composites as charted (and the dental chart might show two or three anterior composites to be replaced).

A more complex treatment plan is often required for patients who have not attended for some time or where there is a need for a major reassessment of a declining state of dental health. In these cases it is helpful to divide the treatment into stages.

1. Urgent treatment for the relief of pain or other symptoms.
2. Treatment for the stabilization of progressive disease or conditions which may become acute (e.g. temporarily restore very carious teeth, remove necrotic pulps, or extract teeth even if they are symptomless at the time).
3. Assess the cause of the dental disease and begin initial preventive measures.
4. Reassess the patient's response to this initial treatment and decide the broad outline of the future plan. At this stage it may be necessary to decide between a number of alternative solutions of different complexity and cost. For example, the same clinical condition (a badly broken down mouth with many failing restorations

and unsatisfactory partial dentures) may be treated in different patients by one of the following:

- extracting all the remaining teeth and providing complete dentures;
- providing extensive restorative treatment with multiple crowns and fixed bridges to replace the partial denture;
- a midway position between these extremes with some extractions, some restorations and new partial dentures.

The basis of this broad decision will be the patient's motivation, his or her response to initial treatment and preventive measures, and the cost. It is a crucial decision and one of the most difficult to make. If there is any doubt, it should be deferred or, better still, a second opinion should be sought from a colleague who may be a member of the practice or the clinic or a local consultant. In some cases, for example hypodontia, decisions may need to be made about orthodontic treatment before providing veneers or crowns and bridges.

5. Provide the initial stage of definitive treatment which may be further preventive measures, periodontal treatment, orthodontic treatment, extractions, or other surgical treatment.

6. A further reassessment to evaluate the success of the first stage of treatment and revise the treatment plan as necessary.

7. Provide the final stages of the active course of treatment.

8. Reassessment, maintenance, and reinforcement of preventive measures.

The importance of making plans, both simple and complex, and of recording the decisions in the patient's record can be summarized as follows.

- It ensures that the clinician reviews the treatment in the light of all available evidence at the start of treatment and at stages throughout it.
- It is a record for later reference, particularly in complicated cases and after a lapse of time. This is available mostly for the benefit of the patient, but on occasions, when patients complain, it may have dento-legal importance and may protect the dentist against unjustified complaints. In this context, when the treatment plan is complex and expensive, it may be wise to put the advice in the form of a letter to the patient so that he or she has time to consider it and its implications before acceptance or rejection. The letter is also a written record, of which the patient has a copy, in cases where there is a dento-legal problem later.

- It avoids the risk of disorderly and ill-advised management which may arise if treatment is undertaken piecemeal. Unfortunately, this is a danger in clinics which are organized on a rigid departmental basis, so that a logical course of treatment is interrupted by different lengths of waiting lists in each department or by the student's inability to carry out certain items of treatment. In a learning environment some restrictions are necessary, but it is important that the compartmentalized attitudes they engender are not carried over into practice.

Some common decisions which have to be made

Clearly, it is not possible to give guidance on every decision which may have to be made, but the following set of examples illustrates the nature of the decision-making process. The examples are as follows:

- diagnosing toothache
- whether to restore or attempt to arrest and partially remineralize a moderately sized carious lesion and whether to restore or monitor an erosive lesion
- whether to extract or treat a tooth
- which restorative material to use.

Making the diagnosis in a patient with toothache

Although it is necessary to know the characteristic symptoms and signs of a condition, it is also necessary to have a systematic method of diagnosing the cause of symptoms in a patient with toothache.

The history should concentrate on the nature of the pain, its duration, and initiating stimuli. Clues should be followed; for example, chronic sensitivity to sweet foods may suggest exposed dentine rather than any of the other conditions, and chronic tenderness to biting will suggest either a cracked cusp or perhaps chronic apical periodontitis. The past dental history may be of interest in cases where trauma or recent restorations may be the cause.

On examining the patient, the dentist should look for possible causes such as caries, leaking restorations, cracked cusps, or evidence of trauma. Radiographs, vitality tests, and percussion tests are all required in order to be confident of a diagnosis in almost every case. Radiographs may show periapical radiolucencies, failed root fillings, internal or external root resorption, fractured roots, and other possible reasons for the toothache.

Figure 2 shows the typical interpretation of signs and symptoms in toothache.

Finally, despite having completed a full investigation, there are occasions when the cause of the pain is still not clear. At this point it is wise to reconsider other causes of pain, such as trigeminal neuralgia, but if these can safely be eliminated then, and only then, the dentist should start to remove previous restorations.

A simplistic maxim, but one well worth remembering, is ^diagnosis should precede treatment*. Far too often busy dentists, pressed for time, feel an obligation to start treating teeth without having made a through diagnosis of the cause of the toothache.

Questions to the text:

1. What are the requirements for completing a dental history?
2. What is necessary to maintain during dental treatment?
3. Who is the final decision on treatment plan taken by?
4. How can the importance of making treatment plans be summarized?
5. What are the ways to diagnose the cause of symptoms in a patient with toothache?
6. Interpret the typical signs and symptoms in toothache as presented in Figure 2.

Exercise 12. Prepare topics on your own.

1. Dental services in Russia.
2. My visit to a dentist.
3. My future profession.

Acute Pulpitis

Acute apical periodontitis

Acute apical abscess

Acute periodontal

abscess

Exposed sensitive dentin er

Food packing

Cracked cusp

Chronic Pulpitis

Chronic apical periodontitis (Apical granuloma)

History

Recent pain with hot and cold. May be very severe. Poorly localized

Tender to bite. Well localized

Pain and swelling. Very well localized

Totalized swelling. Some pain

Generalised pain to hot, cold and sweet

Pain after eating fibrous food, e.g. meat

Vague intermittent pain usually on biting. May be poorly localized

Vague, unprovoked intermittent but increasing pain. Poorly localized.

May have had pain in the past. Now not sensitive to hot and cold

Clinical examination

Possibly caries or recent large restoration

Possibly caries

May be extra-oral or intra-oral swelling over apex of tooth

Intra-oral swelling nearer to gingival margin. Tooth may be mobile

Gingival recession. Exposed dentine at the gingival margin. Sensitive to probe or cold air

Open contact points. Gingival inflammation. Food usually present

Often nothing, but crack may be seen. Maybe painful with occlusal contact only

May have large restoration or caries.

May have large restoration or caries

Vitality test

Hypersensitive

May still be vital, but usually no n-vital

Non-vital

Often vital

Vital

May be vital or non-vital

Maybe hypersensitive

Often normal but maybe hypersensitive

Non-vital

Percussion

Not tender

Tender

Tender to touch. Too tender to percuss

Slight tenderness, more to lateral than axial pressure

Not tender

Not tender to percussion. May be sore with lateral percussion

Usually not tender but maybe

Not tender.

Slightly. May give dull sound on percussion

Other clinical

tests

Raised

temperature. Took ill

Deep pockets. Pus maybe released on probing pocket

Floss passes the contact easily

Sometimes tender to lateral pressure on an individual cusp

Radiographic findings

Probably caries close to pulp, No periapical change

Usually no periapical change in the early stage

Usually no periapical change except slight thickening of apical periodontal membrane

Alveolar bone loss. Usually no periapical change

May be some alveolar bone loss

None

None

None

Periapical radiolucency

Findings on

further investigations

Carious exposure of pulp

Necrotic pulp

Pus maybe drained via access cavity to root canal without local anaesthetic giving immediate relief of pain and confirming the diagnosis Crack sometimes visible at base of cavity when old restoration removed, if left, cuspal fracture will eventually occur Symptoms may settle If restoration removed and tooth dressed with calcium hydroxide, but pulp often dies eventually

UNIT X. ENDODONTICS. DENTAL PROSTHETICS

Lesson 19

Endodontics (Root Canal Therapy).

Dental Anomalies. Grammar. Passive Voice (Revision)

Exercise 1. Learn the following definitions.

1. Dentistry - treatment and care of the teeth and associated oral structures. Dentists are concerned with tooth decay, diseases of the supporting structures (such as the gums), faulty positioning of the teeth, and tooth replacements, as well as prevention of these problems.
2. Orthodontia / orthodontics - a branch of dentistry concerned with straightening of teeth.
3. Orthodontist - a dentist who specializes in straightening teeth and correcting improper bite (occlusion).

4. Prosthodontics - a branch of medicine concerned with diseases and conditions involving muscles, tendons, joints, ligaments, cartilages and bones.
5. Prosthesis - an artificial body part, such as a limb, tooth or eye, to take the place of a missing one.
6. Periodontics - a dental speciality which concerns itself with tissues immediately surrounding the teeth.
7. Periodontist - a dentist who specializes in conditions which affect tissues surrounding the teeth.
8. Pedodontics - children's dentistry.

Exercise 2. Active vocabulary to the text. Learn the following words.

to deal with - иметь дело to derive - происходить (от) to cleanse - прочищать, очищать to involve - вовлекать, вызывать

to seal - герметизировать

procedure - процедура, методика

i.e. = that is - то есть (т.е.)

periradicular - перирадикулярная (ткань)

removal - удаление, устранение

tip - кончик

to infect - инфицировать, заражать

to save - спасать

background - 1) предыстория; 2) образование, опыт

reason (for) - причина

cause - причина

irritation - раздражение

to reach - достигать

to result in - приводить к (в результате)

harmful - вредный

to swell - опухать

to accompany - сопровождать

to confirm - подтверждать

to avoid - избегать

to prohibit - запрещать

Exercise 3. Read and translate the text into Russian.

ENDODONTICS

Endodontics is a subspecialty of dentistry whose broad purpose is to treat the diseases of pulp and related structures. Derived from Greek («endo» - inside and «donto» - tooth). Endodontics deals with problems developing inside the tooth. This involves careful cleansing of the interior spaces, germicidal treatment of these spaces and filling and sealing them. Endodontists are capable of performing a wide variety of treatment procedures.

Endodontics is that branch of dentistry which is concerned with the diagnosis, prevention and treatment of diseases and injuries of the pulp and associated periradicular tissues, i.e. root canal therapy. This involves the removal of diseased pulp tissue and filling of the prepared root canal space with an inert filling material, normally gutta-percha. In addition to non-surgical treatment, endodontists also perform surgical procedures to remove diseased tissues from the area immediately surrounding the tip of the root(s).

Root canal therapy corrects disorders of the pulp or nerve of the tooth. Teeth with infected nerves were once generally removed as corrective therapy. In case of pulp infection, natural tooth can be saved through modern endodontic procedures. The restoration of a natural tooth is always preferable in addition to prosthetics for a wide variety of oral health reasons.

The most common causes of pulpal nerve damage are:

- physical irritation, generally brought on by aggressive tooth decay reaching down to the nerve or through deep fillings which allow harmful bacteria to reach the nerve resulting in infection and decay;
- trauma: many forms of dental trauma can affect the health of pulpal tissue. Blows to a tooth or the jaw can cause damage to sensitive nerve tissue within the tooth.

Diagnosis of pulpal nerve damage is generally the result of pain and discomfort in the tooth that can be accompanied by facial swelling of varying degree. Once pulpal decay has been confirmed by an endodontist, through an oral examination, corrective therapy should begin quickly to avoid tooth loss and alleviate pain.

Treatment begins with the initial removal of the tooth crown or top, to allow access to the pulpal tissue. Once the affected pulpal tissue is exposed, the endodontist carefully removes all of the affected area. The area is carefully cleaned, enlarged and shaped to provide a clean, bondable surface for eventual filling. When the endodontist has completed the evacuation and shaping of the pulpal canal, it is then filled with a permanent filler to prohibit any further infection and discomfort. Upon completion of this filling an adequate crowning is then fabricated to complete the rescue and restoration of your natural tooth.

Exercise 4. Read and translate the text into Russian using a dictionary.

DENTAL ANOMALIES

This text is designed to help the learner perform the following:

- Identify variations from the normal (anomalies) for the number of teeth in an arch.
- Identify anomalies in crown morphology and, when applicable, identify the anomaly by name and give a possible cause (etiology).

Definition: An anomaly is a deviation from normal, usually related to embryonic development that may result in the absence, excess, or deformity of body parts. Dental anomalies are abnormalities of teeth that range from such «common» occurrences as malformed permanent maxillary lateral incisors that are peg-shaped, to such rare occurrences as complete anodontia (no teeth at all). Dental anomalies are most often caused by hereditary factors (gene related) or by developmental or metabolic disturbances. While more anomalies occur in the permanent than primary dentition, and in the maxilla than the mandible, it is important to remember that their occurrence is rare. For example, only 1-2% of the population have some form of anodontia (one or more missing teeth), while another 1-2% have supernumerary (extra) teeth. When specific deformities or abnormal formations of teeth occur with greater frequency, it is difficult to determine whether the deviation is a «true» anomaly or simply an extreme variation in tooth morphology.

Familiarity with dental anomalies is essential to the clinical practice of dentistry and dental hygiene. Recognition and correct labeling of anomalies is important for your communication with other dental team members, especially in the case of referral to or from another dentist. Additionally, your communication with the patient (or, in the case of a child, the parent) should reflect knowledge of abnormal oral conditions. Even with your assurance that the fused front tooth of a 4-year-old

child occurs with 0.5 % frequency and rarely affects the number of teeth in the permanent dentition, you will have to work hard to explain and promote the patient's confidence in you and the office. Likewise, the informed patient who understands why the accessory cusps on the buccal surface of his maxillary or mandibular molar is more prone to decay than normal, will likely be more receptive to home care instructions that are specific to his mouth and his needs. Finally, understanding the etiology (cause) of the anomaly is important in determining the course of treatment, if any. Additional information related to the etiology of the following anomalies is found in the study of both oral histology/embryology and oral pathology.

Notes:

likewise - аналогично

prone to - подвержен

occurrence - зд. случай

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

вовлекать, широкий, продолжительность, поражения пульпы, окружающие ткани, нехирургическое удаление, инертный, пломбировочный материал, патология (нарушения), широкое разнообразие причин, как правило вызываемый, глубокий кариес, удары, чувствительные ткани

Exercise 2. Find in the text and translate the derivatives of the following words.

to affect, to relate, care, to cleanse, to treat, to fill, to prevent, disease, to remove, to add, pulp, to prefer, harm, to correct, quick

Exercise 3. Match the words in column A with those in column B. Translate them into Russian.

A) affected B) treatment

interior interest

harmful tissues

diseased removal

careful area

greatest spaces

non-surgical bacteria

aggressive cleansing

endodontic tooth

natural training

pulpal procedures

Exercise 4. Put a correct preposition into each gap.

1. ... many cases a crown restoration is recommended ... completion ... root canal therapy.
2. Discoloration is not dangerous ... the health of a tooth.
3. This discoloration can be treated ... bleaching ... the affected tooth.
4. The main clinical sign ... success is the removal... pathology.
5. ... the endodontist has completed the evacuation and shaping ... the pulpal canal, it is then filled ... a permanent filler.
6. ... 95% ... cases ... pulpal infection a natural tooth can be saved ... endodontic procedures.
7. ... the diagnosis is confirmed ... an endodontist, corrective therapy can begin.
8. In the USA, one person ... three ... the age ... 35 needs dentures.
9. These dental problems can be made worse ... the kinds ... food we eat.

Exercise 5. Find the English equivalents to the given words from text «Dental Anomalies*». Learn the words.

отклонение, избыток, порок развития (изъян), обычный случай, наследственные факторы, тогда как, ген, сверхкомплектные зубы, определять, знакомство, частота, уверенность, существенный, направление (к специалисту), доверие, более приемлемо

Exercise 6. Match the words in column A with those in B.

A B

1) common a) cause

2) malformed b) development

- 3) possible c) anodontia
- 4) hereditary d) dentition
- 5) dental e) parts
- 6) primary f) practice
- 7) missing g) anomalies
- 8) clinical h) factors
- 9) complete i) incisors
- 10) embryonic j) occurrence
- 11) body k) teeth

Exercise 7. Find the basic word which the given words are derived from. Say what parts of speech the given words are. Translate both words.

occurrence, development, developmental, referral, deviation, recognition, malformed, deformity, formation, disturbances, variation, familiarity, dentistry, dental, additionally, assurance, confidence, likewise, likely

How are they formed? Do you know any other derivatives from the same basic word?

Exercise 8. Form the new words using the given suffixes. Translate them into Russian.

- tion dictate, define, locate, determine, create, add, promote, vary,

identify

- er/or learn, teach, write, play, create, design, compute, translate

- ance/ence assure, occur, confide, ignore, depend, refer, differ

- ment develop, advertise, place (verb), employ, arrange

- ic class, economy, character

- al economy, essence, music, development, norm, origin, refer

(the derivative is a noun)

- able rely, accept, comfort, read, prevent

- ous danger, vigor, pore, fame, gas, mucous

- ive prevent, inform, relate, effect

- ly final, additional, like, real, possible, careful, effective, local, private

Exercise 9. Use the derivatives of the words in column A to fill in the blanks in column B. Translate the sentences into Russian. A B

1) care The dentist had to work very_ asthewallsofthetooth were very thin.

2) prevent Dentists should inform patients that proper oral hygiene is the best_ measure against dental caries and pulpitis.

3) danger If you start jogging at an elderly age, consult your doctor, otherwise it can be_.

4) correct The teacher had to make only some small_ in this student's work.

5) differ The twins (близнецы) were so alike that we could see no_ between them.

6) real The doctor asked the patient's relatives if they_ how serious the situation was.

7) develop The doctor has carefully followed up the child's_ since the very first days after birth.

8) confide Can you keep a secret? The matter is very_ Please, don't tell anyone.

9) identify _of a problem is the first step towards solving it.

10) like The doctor thought that complications were not_.

11) character The disease is _ by spontaneous pains which spread to the ear or temple.

12) occur Such rare_ can be observed for the most part in elderly patients.

GRAMMAR EXERCISES

Exercise 1. Find sentences with verbs in the Passive Voice in the text «Endodontics». Translate them into Russian.

Exercise 2. Determine the tense and the voice of the predicate. Translate the sentences into Russian.

1. Disorders of the pulp and nerves of the tooth are corrected by the root canal treatment.
2. Diagnosis of pulpal nerve damage can be made by the symptoms accompanying pain such as discomfort in the tooth, facial swelling of varying degree.
3. Root canal therapy of the diseased tooth will be performed with the removal of the pulp tissue and filling the root canal with an inert filling material.
4. The health of pulpal tissue may be affected by blows to the tooth or the jaw.
5. While treating the pulp and the related structures, special attention has to be paid to careful cleansing of the tooth interior spaces.
6. Care is to be taken to correct disorders of the pulp or nerve of the tooth.
7. In this article attention has been called to the exposed and affected pulpal tissue.
8. The procedure of the evacuation and shaping of the pulpal canal was followed by permanent filling.
9. An adequate crowning has been done to complete the rescue and restoration of the diseased tooth.
10. Mention has already been made of the pulpal decay prevention.
11. It has been found that thorough oral examination and corrective therapy help to avoid tooth loss and alleviate the pain.
12. A most interesting research has been carried out in regard to the root canal therapy of different pulp and nerve disorders .
13. The importance of preventive dentistry is so evident that it need not be discussed.
14. The term endodontics is referred to the treatment of the diseases of the pulp and related structures.
15. A proper therapy must be administered to avoid the tooth loss.
16. Pulp decay having been confirmed, a corrective therapy had to be performed.

Exercise 3. Use the correct form of the verbs in brackets in the Passive Voice.

1. Unfortunately , such conditions ... (to describe) and ... (to investigate) poorly.
2. Certain precautions should ... (to take) to avoid unfavourable reactions.
3. Drugs must... (to protect) from direct sunlight.
4. According to the protocol of the study the test sub-group ... (to administer) ibuprofen prior to the surgery.
5. New treatments ... (to research) currently.
6. Cavity preparation can ... (to perform) with a round steel bur in a lowspeed handpiece.
7. Tomorrow an X-ray examination ... (to take) to check the root canal filling.
8. The drug ... (to monitor) for possible side-effects now.
9. Local inflammation ... (to accompany) by various reactions in other parts of the body.
10. Surgical procedures ... (to perform) by the endodontist now.
11. Medicine and pharmacology are two sciences which ... (to change) a great deal recently.
12. The soft tissue ... (to remove) because it... (to infect) heavily.

Exercise 4. Translate into English using the Passive Voice.

1. Поражение нерва пульпы часто вызывается физическим раздражением и травмой.
2. После того как пораженная ткань пульпы была удалена, пульпарный канал был отформирован и запломбирован.
3. Прежде всего потребуется удаление пораженной ткани.
4. Вчера во время операции была открыта полость пульпы и гной был удален.
5. Как нехирургическое лечение, так и хирургические процедуры выполняются эндодонтом.
6. Повреждение чувствительной нервной ткани внутри зуба может быть вызвано ударами в зуб или челюсть.
7. Сейчас эндодонт пломбирует полость зуба.
8. В последнее время я лечусь у эндодонта, так как у меня запущенный кариес.

9. Как лечат заболевания пульпы и связанных с ней структур?

10. Операции часто выполняют под общей анестезией.

Exercise 5.

A) Find present and past participles in the text «Dental Anomalies*». Are there any cases of past participle in post position? Translate, if you have found it/them.

B) Choose the correct participle. Sometimes both are possible. What is the difference? Translate into Russian.

developing/developed countries determining/determined factor

determining/determined person applied/applying sciences

missing/missed teeth

identified/ identifying reasons recognized/recognizing anomalies

correcting/corrected mistakes decaying/decayed teeth

reflected/reflecting light

gene related/relating

questions referring to/referred to

SPEECH EXERCISES

Exercise 1. Match the medical terms in column A with the descriptions in column B.

A B

Pedodontics an artificial part, such as an artificial limb, denture or eye
Periodontics a branch of dentistry concerned with straightening of teeth
Orthodontics children's dentistry

Prosthesis a dentist who specialises in straightening teeth and correcting improper bite (occlusion)

Endodontics a branch of dentistry concerned with the treatment of diseases of the pulp and related structures.

Periodontist a branch of medicine concerned with diseases and conditions involving muscles, tendons, joints, ligaments, cartilages and bones

Orthopedics a dentist who specialises in conditions which affect tissues surrounding the teeth

Orthodontist a speciality which concerns itself with dental tissues immediately surrounding the teeth

Exercise 2. Answer the following questions to the text ^Endodontics*.

1. What is the purpose of endodontics?
2. What is endodontics concerned with?
3. What is another name for endodontics?
4. What stages does root canal therapy involve?
5. What material is used to fill root canals?
6. What kind of disorders can root canal therapy correct?
7. In the past, what was the general procedure in relation to teeth with infected nerves?
8. Can such teeth be saved? If yes, how?
9. Why is endodontic restoration preferable to prosthetics?
10. What are the most common causes of pulp nerve damage?
11. What helps dentists diagnose pulpal nerve damage?
12. What can be done to confirm the initial diagnosis?
13. How is the treatment begun?
14. When can the pulpal canal be filled with a permanent filler?
15. What is done upon completion of this procedure?

Exercise 3. Answer the questions to the text «Dental Anomalies*.

1. What is the definition of anomaly?
2. What are dental anomalies?
3. Is anodontia an anomaly?
4. What can cause dental anomalies?
5. Is it true that metabolic disturbances can cause dental anomalies?
6. In what dentition are dental anomalies more frequent, in primary or permanent?
7. How often do dental anomalies occur?
8. Do dentists often observe supernumerary teeth?

9. What can explain the fact that sometimes specific deformities of teeth occur with greater frequency?

10. Why is it essential for a dentist to be familiar with dental anomalies?

11. What dental anomalies are you familiar with?

12. Should a dentist give his patients or their parents some special information about dental anomalies? Why?

Exercise 4. Translate the text into Russian in written form without a dictionary. Answer the questions to the text.

ABSENCE OF TEETH

A) *Total Anodontia*

True anodontia is the total congenital absence of a set of teeth. Total anodontia is characterized by the absence of the entire primary and secondary dentitions, and is extremely rare. It is most often associated with a generalized congenital deformation (a sex-linked genetic trait) such as the abnormal development of the ectoderm or outer embryonic cell layer. Faulty ectodermal development further affects such structures as hair, nails, sebaceous and sweat glands, and salivary glands.

B) *Partial Anodontia*

Partial anodontia, also referred to as congenitally missing teeth, involves one or more missing teeth from a dentition. Though not proven to be a hereditary trait, tendencies toward missing the same tooth do run in families.

1. Most commonly missing permanent teeth.

The most commonly missing permanent teeth are third molars, with the maxillary thirds absent from the dentition more often than the mandibular thirds.

2. Second most commonly missing teeth.

The permanent maxillary lateral incisors are the next most commonly missing teeth. Approximately 1-2% of the population is missing one or both of their maxillary incisors.

3. Third most commonly missing teeth.

The mandibular second premolars are the third most frequently missing permanent teeth, with 1% of the population missing one or both. Some stud-

ies indicate the order of most commonly missing teeth to be: third molars, maxillary and mandibular premolars, and maxillary lateral incisors.

Some observers state that missing teeth follow evolutionary trends in that the teeth most commonly missing from the dentition (third molars) are those that are most expendable in terms of their role in oral function. On the opposite, the most stable teeth in the permanent dentition, the canines, are the least likely to be absent from the dentition.

Notes:

expandable - несущественный; то, чем можно пренебречь in terms of - в том, что касается; с точки зрения

Questions to be answered:

1. What is total anodontia characterized by?
2. What is it associated with?
3. What is a professional term for congenitally missing teeth?
4. Is partial anodontia a hereditary trait?
5. What are the most commonly missing permanent teeth?
6. Do mandibular second premolars refer to the most commonly missing teeth?
7. What percent of population miss them?
8. What evolutionary trait can be observed at the example of missing teeth?
9. Are canines or incisors often missed? What can be said about these teeth?

Exercise 5. Use a dictionary to read and translate this text. Answer the questions.

FUSION

Fusion is the union of two adjacent tooth germs, always involving the dentine. Upon clinical examination, this condition appears similar to gemination since the fused teeth have one crown that appears doubled in width. However, unlike gemination, radiographs usually reveal two separate but fused roots with separate pulp chambers. Another way to differentiate fusion from gemination is to count the teeth in the arch. If the fused teeth are counted as two, the total number of teeth will reflect the normal number of teeth in that arch.

Like geminated teeth, fused teeth occur more commonly in the anterior portion of the mouth (in less than 1% of the population), and more often in the deciduous

dentition than in the permanent dentition. The mandibular incisor area is affected more often than the maxilla.

Fusion is thought to be caused by pressure or force during development of adjacent roots. Many of the reports of fusion involve a supernumerary tooth joining with an adjacent tooth, such as the fusion of a mandibular third and fourth molar, and the fusion of a maxillary lateral incisor and anterior supernumerary tooth.

ACCESSORY CUSPS OR TUBERCLES

Any tooth may exhibit extra small enamel projections called tubercles, or extra accessory cusps. These enamel projections may result from developmental localized hyperplasia (increase in volume of tissue caused by growth of new cells) or crowded conditions prior to eruption where fusion of a supernumerary tooth may be viewed as an extra cusp.

Enamel pearls are small, round nodules of enamel with a tiny core of dentine. They are found most frequently on the distal of third molars and the buccal root furcation of molars. Radiographically enamel pearls appear as small round radiopacities (that is, areas appearing light or white on the exposed film). Being covered with enamel, they prevent the normal connective tissue attachment and consequently may channel disease (periodontal problems) into this region.

1. What disorder is called fusion in dentistry?
2. The teeth in which jaw are more often affected by this disorder?
3. What can cause fusion?
4. Are fusion and germination the same thing?
5. What are tubercles?
6. What is hyperplasia?
7. What can it cause in teeth?
8. What makes enamel pearls pathologically dangerous?

Lesson 20

Crowns and Bridges. Grammar: Sequence of Tenses. Infinitive Constructions (Revision)

Exercise 1. Learn to pronounce the following words and word combinations; translate them into Russian.

appearance, severely discoloured teeth, misaligned teeth, impression, alloy, porcelain, partial denture, caution, ensure

Exercise 2. Learn the active vocabulary to the text.

to restore teeth - восстанавливать зубы

to place a crown - одеть коронку

an impression - слепок

life-size model - модель в натуральную величину

alloy - сплав

temporary crown - временная коронка

fixed partial denture - несъемный частичный протез

removable partial denture - съемный частичный протез

to take caution - быть осторожным, принимать меры предосторожности

to avoid - избегать

«try-in» appointment - примерка

Exercise 3. Read and translate into Russian the following dental terms and their definitions.

1. Porcelain / Resin Inlay / Onlay - conservative and aesthetic restorations for posterior teeth.

2. Implants - used to replace teeth, where there are no teeth.

3. Bridges - used to replace missing teeth.

4. Dentures - full or partial replacement of missing teeth, also serve as cosmetic function for lip support and facial contour.

5. Bonding - a direct placement of a resin restorative material to reshape or rebuild the tooth. This work requires much artistic talent from a dentist to replicate the life-like appearance of a tooth.

6. Porcelain veneers - the most aesthetic restorative materials used to cover the facial surfaces of teeth.

7. Crowns - can be of three types: full cast metal, porcelain fused to metal, ceramic. The type of the crown depends on several factors which are decided by the dentist.

Exercise 4. Translate the following word combinations into Russian before reading the text.

in addition to, decayed or broken crowns, to reduce a tooth in size, to fit over, to construct a life-size model, to fabricate the actual crown, to wear a temporary crown, to mask the defects, to use a fixed partial denture (bridge), to take caution to avoid damage, to eat a balanced diet, to ensure the health of teeth, to avoid fracturing

Exercise 5. Read and translate the text into Russian.

CROWNS AND BRIDGES

In addition to restoring teeth that are badly decayed or broken, crowns (caps) can improve one's appearance by correcting severely discoloured, chipped or misaligned teeth.

To place a crown, the dentist must prepare the tooth reducing it in size, so that a replacement crown can fit over the existing tooth.

Impressions of the teeth and surrounding areas are made, and life-size models constructed. Using these models the actual crown is fabricated.

Today most crowns are made from alloys. Sometimes these alloys are coated with a layer of porcelain for natural appearance.

The patient is given a temporary crown to wear while the permanent one is being constructed. After a «try-in» appointment any necessary changes are made and the crown is put into place.

When a single crown is not sufficient to mask the defects and the patient has enough natural teeth remaining, a fixed partial denture (bridge) can be used.

For some dental problems, for example, insufficient remaining teeth affected by periodontal disease, a removable partial denture may be recommended. Both fixed and removable partial dentures depend on the existing teeth for their support, and caution must be taken to avoid damage to these supporting teeth. Thorough brushing and flossing, eating a balanced diet, and visiting the dentist regularly will

help to ensure the health of the remaining teeth. Moreover, some precautions are necessary to avoid fracturing the replaced teeth.

VOCABULARY EXERCISES

Exercise 1. Give the English equivalents to the following words and word combinations.

одеть коронку, обломанные зубы, сменная коронка, естественный вид, скрыть дефект, съемный протез, меры предосторожности, постоянный протез, избегать повреждений

Exercise 2. Give the synonyms to the following words.

a crown, a bridge, a neglected tooth, badly damaged, to place a crown, to construct, to cover the defects

Exercise 3. Put in proper prepositions and give Russian equivalents of the word combinations.

- 1) to reduce a tooth_size
- 2) to improve appearance_correcting teeth
- 3) to fit a replacement crown_the existing tooth
- 4) to coat the alloys_a layer of porcelain
- 5) most crowns are made_alloys

Exercise 4. Fill in the gaps with the words from your active vocabulary given in the brackets below. Translate the sentences into Russian.

1. Most manufacturers now produce a guide which shows the c... and proportions used in the m... of their a... t... . These guides are a great help in making the c... choice for p... j... crowns.
2. The... c... so formed may then be removed.
3. When cooled, the i... should be examined carefully to see that it is accurate.
4. If a t... is a... by caries, softened t... should first be r... and replaced by zinc oxyphosphate cement.
5. The a... of a wellmatched porcelain r... is very similar to that of a natural tooth.
6. The crown can be easily f... during the next visit, (fitted, temporary crowns, porcelain, jacket, correct, manufacture, affected, tissues, colour, removed, artificial teeth, impressions, tooth, appearance, restorations).

Exercise 5. Read the text and choose the correct answer to the given questions.

PORCELAIN RESTORATIONS

Porcelain was first used by the Chinese as long as 1000 years ago, and in more recent times by artists in other countries. The ceramic industry is now a very large one and the use of porcelain for dental purposes is only one of its many applications.

The first artificial teeth were made of porcelain in 1815, and the jacket crown was introduced by Land in 1895.

Porcelain is composed of kaolin (aluminium silicate) feldspar, and quartz. When heated to the appropriate firing temperature feldspar fuses to glass and this cements together more refractive kaolin and quartz. Small quantities of sodium and potassium carbonate are used as fluxes and the colour is controlled by pigments consisting of various metallic salts.

Porcelain has been used for the making of artificial teeth for such a long time that its properties are well known to all dentists. As prepared for dental purposes its colour and translucency can be made to simulate very closely the colour and translucency of natural teeth.

Questions:

1. What can porcelain be used for?
 - a) It can be used only for making artificial teeth;
 - b) It can be used for many purposes including dentistry;
 - c) It can be used for many purposes but not in dentistry;
2. When were the first artificial teeth introduced?
 - a) only this century;
 - b) in 1895;
 - c) in 1815.
3. What happens when porcelain is heated to the appropriate firing temperature?
 - a) It burns down completely;
 - b) It breaks;
 - c) The feldspar fuses to glass.
4. What qualities of porcelain are important in dentistry?
 - a) It is expensive;

- b) Its colour and translucency;
 - c) Its fragility.
5. How long has porcelain been used in dentistry?
- a) It is absolutely new, it's not known to dentists;
 - b) It has been used for a long time;
 - c) It is not known.

GRAMMAR EXERCISES

Exercise 1. Translate the following sentences into Russian paying attention to the Passive Voice.

1. Impressions of the teeth and surrounding areas are made.
2. Life-size models are constructed.
3. These alloys are coated with a layer of porcelain.
4. The patient is given a temporary crown to wear.
5. After a «try-in» appointment any necessary changes are made.
6. For some dental problems a removable partial denture may be recommended.
7. Caution must be taken to avoid damage to the support teeth.

Exercise 2. Translate the following sentences into English.

1. Коронки помогают исправить зубы неправильной формы, с измененным цветом.
2. Необходимо сделать слепки зубов и окружающих тканей.
3. Большинство коронок изготавливают из сплавов.
4. Пока готовится постоянная коронка, больному фиксируется временная.
5. Если одиночно стоящей коронки недостаточно, чтобы скрыть дефекты, используется частичный (постоянный) несъемный протез-мост.

Exercise 3. Translate the sentences into Russian paying attention to the Sequence of Tenses.

1. The patient said he had felt no pain.
2. The authour made it clear that new dental materials had been developed.

3. During a check-up the girl was told that she had to consult an orthodontist.
4. The woman hoped that her tooth could be saved.
5. The dentist was sure that the patient needed root canal therapy.
6. The girl complained that the new drug made her feel worse.
7. On his lecture on Prosthodontics the professor said that new dental materials were being used widely.
8. She asked for her tooth X-ray but the nurse said it was not ready.
9. Her dental mechanic said that all necessary changes in the artificial crown would be made after a «try-in».
10. The patient was informed that the life-size model had not been constructed yet.

Exercise 4. Find the Complex Subject or the Complex Object in the following sentences. Translate the sentences into Russian.

1. Accurate models of both dental arches are known to be of first importance in deciding upon a proper course of treatment in any given case.
2. The oral surgeon expects the area to heal after the surgical management before long.
3. Porcelain jacket crowns seem to approach the esthetic qualities of the natural teeth more closely.
4. The patient felt the pain radiate over the jaw, the ear, and the head.
5. Porcelain jacket crowns are considered to be primarily indicated for interior teeth in both jaws including bicuspid.
6. Dentists recommend people to have their teeth examined regularly even when they have nothing to complain of.
7. The effectiveness of dental materials is sure to be determined by physical or chemical reactions of the atoms.
8. The dentist advised her to have two crowns and a bridge fitted on the front teeth to keep them safe.
9. The fixed partial denture is believed to play an important role in occlusal rehabilitation.
10. Don't let him eat cold or hot food after the operation on the gum.

Exercise 5. Translate the following text into Russian in written form using a dictionary.

JAWBONE IMPLANTS

The method of treatment with a jawbone anchored bridge gives a final result similar to a tooth replacement with bridges attached to the patient's own teeth. The principle of the technique used is that bridge connections of titanium (fixtures) are placed directly in the jawbone. This means that the titanium fixture is built into the bone through the healing ability of the bone tissue (osseointegration). The material titanium is harmless to human tissues and does not cause any rejection reactions. This forms a basis for permanent anchoring function. With this procedure and with careful oral hygiene the jawbone and gums can be kept in a healthy condition. For most persons treatment with a jawbone anchored bridge can be performed by utilising the remaining jawbone. The volume of jawbone can be roughly estimated by an X-ray examination.

SPEECH EXERCISES

Exercise 1. Answer the following questions to the text «Crowns and Bridges*».

1. What purpose are the crowns (caps) used for?
2. What manipulations should the dentist perform to place a crown over the tooth?
3. What materials are most crowns made of?
4. What is used by a patient while the permanent crown is being constructed?
5. In what cases is a fixed partial denture used?
6. What denture may be recommended in case of insufficient remaining teeth?
7. What will help a person to ensure the health of remaining teeth?

Exercise 2. Give the summary of the text «Crowns and Bridges*» using the answers to the previous questions.

Exercise 3. Read and translate the text into Russian and answer the questions.

CAST METAL AND PORCELAIN INTRACORONAL RESTORATIONS

The modern cast restoration owes its development to an American dentist, Dr. William H. Taggart, who in 1907 described a technique to produce gold castings which fitted prepared teeth with precision. The technique he refined is known as the lost wax process and involves making a wax pattern of the restoration which is then invested in a freshly mixed refractory material contained in a metal casting

ring. When the investment has set, the whole is heated to a high temperature, causing the wax to burn out, leaving a space. Molten metal or glass is forced into mould to form a replica of the original wax pattern.

Direct and indirect techniques are two methods by which cast metal restorations can be made. In the direct method the wax is inserted directly into the cavity and the pattern is carved in the mouth and then invested and cast. It is taken to the chairside after polishing but with the margins untouched. Final finishing of the margins is then carried out in the mouth. Where the restoration is simple this technique is quick, accurate and saves both time and expense. However, single cavities can be satisfactorily restored with plastic materials and so direct cast restoration is used very little today because it requires two visits by the patient, and is therefore expensive in time.

In the indirect method an impression of the cavity and the surrounding area is made in the mouth. From this impression a model of the tooth, a die, is constructed. The wax pattern is formed upon this die, invested, and cast. It is fitted and finished on the die in the laboratory. Thus, only minimal adjustment should be required at the chairside, as the majority of the work has been carried out on accurate models in the optimum conditions of the laboratory. This is the technique of choice for all complex restorations.

INDICATIONS FOR RESTORATIONS

Direct cast metal inlays can only reasonably be made for very small cavities. The strength of the cast metal has very little advantage and the cost of the procedure is very rarely justified.

The indirect technique allows a much greater range of preparation design and the most commonly made type of cast metal inlay is used to protect the cusps by covering the occlusal surface. These are called either inlays with cuspal protection or onlays. The second most common indication for indirect inlays is as part of a bridge or other appliance replacing missing teeth.

The traditional material for inlays is gold. Pure gold is seldom if ever used as it is a very soft material. Other metals are added to improve the physical properties, and therefore the material used in a traditional «gold» inlay is in fact a gold alloy. In some cases alloys containing 60 per cent or more of gold are still used and these can reasonably be described as gold alloys. However, the high cost of gold has stimulated development and improvements in other alloys and a vast choice is now available to the clinician and technician. Some alloys which are used for

intracoronar restorations contain only 20 per cent or so of gold and so it is misleading to describe these as «gold» alloys. Other alloys contain no gold at all but are based on a combination of other metals. This is why the term «cast metal» is used.

Porcelain inlays were used occasionally in the past but with the introduction of composite materials they fell into disuse. However, a new generation of materials and techniques has been developed in the last few years and there has been a resurgence in the interest in porcelain inlays. Porcelain inlays or onlays are more natural in appearance than cast metal inlays and are more abrasion-resistant than composite. Therefore they may be appropriate in the occlusal surfaces of posterior teeth when large restorations are needed and appearance is important. They may be used in the buccal surfaces of visible anterior and posterior teeth when abrasion is a problem.

Porcelain veneers may give a very durable and unchanging appearance, and although tooth preparation is necessary, they are more conservative of tooth tissue than a conventional complete crown.

Porcelain inlays and veneers are made by one of two completely different techniques. In the first technique, the impression of the tooth is cast in a refractory material which can be heated to very high temperatures without damage. Porcelain powder is mixed to a paste with a liquid and placed into the inlay cavity or onto the labial surface of this refractory model and then fired in a furnace until the particles of porcelain fuse together. The process is repeated a number of times until the restoration is built to the required contour and colour.

The second method is to cast an ingot of castable glass into a mould made by the lost wax technique. This glass restoration is then treated in a ceramming furnace which converts the material to a ceramic which is then surface stained and fired to change its appearance.

Vocabulary to the text

cast - оттиск, модель; отливать

precision - точность

wax - воск

refine - совершенствовать, улучшать

molten - расплавленный, жидкий

mould - форма (для отливки искусственного зуба)

replica - реплика, отпечаток

carve - вырезать, резать

finishing - полировка

accurate - точный

ingot - слиток

die - (зуботехнический) штамп

adjustment - корректировка

furnace - горн, печь

misleading - вводящий в заблуждение, обманчивый

resurgence - возрождение, воскрешение

abrasion - абразия, истирание

Questions to be answered:

1. What technique was described by Dr. W.H. Taggart?
2. What two techniques are used to make cast metal restorations?
3. Why is the term «cast metal» used?
4. What two techniques are used to make porcelain inlays and veneers?
5. Describe the indications for direct and indirect cast metal inlays.
6. Describe the indications for porcelain inlays or onlays.

Exercise 4. Select the facts in the text to support the following statements.

1. An American dentist described a technique to produce gold castings.
2. Direct cast metal inlays can only reasonably be made for very small cavities.
3. Pure gold is seldom if ever used for inlays.

Exercise 5. Read and translate into Russian the following text and point out the advantages and disadvantages of cast metal and porcelain restorations.

ADVANTAGES AND DISADVANTAGES OF CAST METAL AND PORCELAIN RESTORATIONS

Cast metal is stronger in thin sections than amalgam, composite, or glass ionomer cement, and it has a greater ability to resist tensile forces. Thus, it is the material of

choice to protect weakened cusps. It is also ideally suited for extracoronal veneer restorations such as onlays and complete and partial crowns.

In contrast, porcelain has high compressive strength but low tensile strength. This means that it is relatively brittle in thin sections, at least until it is bonded to the tooth and supported by it.

Cast metal and porcelain are at least as resistant to abrasion as enamel, and there has been some concern that porcelain is more resistant so that if a porcelain restoration is opposed by a natural tooth, the natural tooth may wear down more rapidly.

At one time, when the choice of restorative material was amalgam, gold, or silicate, gold was frequently preferred for aesthetic reasons as it was more attractive than amalgam and did not deteriorate like silicate. Also, in many societies it was regarded as a status symbol to have gold visible in the front or to the side of the mouth. Now relatively few patients ask for visible gold restorations.

Porcelain, in contrast can have a very natural appearance which is very durable compared with composite and glass ionomer which sometimes discolour or develop stained margins.

Cast metal is very versatile material. The indirect technique allows it to be shaped accurately in the laboratory to restore occlusal and axial contours and contact areas. These alloys are almost unchallenged as the materials of choice for bridgework.

Cost is the major disadvantage of cast metal and porcelain restorations. The reason for the high cost is the amount of time that they take compared with plastic restorations. There is always a laboratory stage and a minimum of two clinical appointments is necessary.

Notes:

tensile strength - предел прочности при растяжении

brittle - хрупкий, ломкий

deteriorate - разрушаться

versatile - универсальный

Exercise 6. Read the text and answer the questions below.

ADULT ORTHODONTICS

Although crowns and bridges may work wonders for some patients, such procedures won't help those with protruding or crowded teeth. Orthodontic treatment is the answer here.

Many adults seek care simply because they want a more attractive smile. However, orthodontic problems affect more than just a person's appearance. Crooked, crowded or protruding teeth are harder to clean, and the consequence could be more tooth decay or periodontal disease. If chewing is difficult because teeth are not properly aligned, there is a tendency to choose softer foods, often at the expense of nutrition. Misaligned teeth can also create

tension and pain in the jaw joints because of the extra stress placed on chewing muscles. They can cause abnormal wear of teeth and lead to emotional problems due to their effect on speech and unattractive appearance.

Questions to be answered:

1. Do crowns and bridges work wonders for patients in all cases?
2. Why do many adults seek orthodontic care?
3. Do orthodontic problems affect only appearance of the patient?
4. What could the consequence of crooked, crowded or protruding teeth be?
5. What teeth can create tension and pain in the jaw joints?
6. What abnormalities do misaligned teeth cause?

Exercise 7. Translate the text ^Impressions* into Russian and say which statements given below are true and which are false. Correct the false ones using the sentences from the text.

1. There are three groups of elastomeric impression materials.
2. The occlusal surface of the teeth may be recorded with air bubbles.
3. An interocclusal record is always needed.
4. A special tray is recommended with several elastomeric impression materials.
5. Elastomeric impression materials are not hydrophobic.
6. Careful management of gingival tissues is the key to taking good impressions.
7. A heavier-viscosity material or putty mix is syringed into the preparation and around the tooth.
8. A low-viscosity material is placed in the impression tray.

9. The impression is supported while it sets and then removed from the mouth.

10. There is no need to examine in detail the impression of the prepared tooth.

IMPRESSIONS

An impression of the cavity and the full arch of teeth is taken in an elastomeric impression material. The dentist may choose to use one of three groups of these materials: the polysulphides, polyethers, or silicones.

An impression of the opposing arch is taken, usually in alginate. An important feature of this impression is that the occlusal surface of the teeth should be recorded without air bubbles so that the opposing models can be articulated accurately.

An interocclusal record will not be needed where there are sufficient occluding teeth. However, if there is any doubt about the occlusion, a suitable interocclusal record is taken in the intercuspal position.

A special tray is recommended with several elastomeric impression materials. The tray supports the material around the teeth.

The elastomeric impression materials are hydrophobic and so the prepared tooth surface must be dry. The tooth is isolated with cotton-wool rolls and a saliva ejector is placed in the mouth.

Careful management of the gingival tissues is the key to taking good impressions, since any gingival exudate or bleeding will prevent the material from flowing over the prepared tooth surface.

The impression materials are mixed thoroughly before taking the impression. The retraction cord is removed and a low-viscosity material is syringed into the preparation and around the tooth. A heavier-viscosity material or putty mix is placed in the impression tray and the tray is seated over the unset low-viscosity material. This helps to adapt it into all the areas of the preparation and into the gingival crevice. The impression is supported while it sets and then removed from the mouth.

The impression of the prepared tooth should be examined in detail to check that the entire margin is visible and that there are no voids caused by air bubbles.

Notes:

impression tray - слепочная ложка

bubble - пузырек

saliva ejector - слюноотсос

exudate - экссудат

syringe - шприц; вводить с помощью шприца

putty mix - смесь для слепков

gingival crevice - десневая борозда

void - пустота, вакуум

Exercise 8. Review the text to answer the following questions.

1. What materials are used for impressions of the cavity and full arch of the teeth?
2. Why is it important to record the occlusal surface of the teeth without air bubbles?
3. In what case is it not necessary to take an interocclusal record?
4. Why do dentists use an impression tray?
5. What is the key to taking good impressions?
6. What material is syringed into the preparation and around the tooth?
7. What material is placed in the impression tray?
8. Why should the impression of the prepared tooth be examined in detail?

ADDITIONAL READING MATERIAL

Text 1. Read the text and answer the questions below.

OVERCOMING DENTAL ANXIETY

The Canadian Dental Association estimates that over three million Canadians suffer from dental anxiety. These are patients who continually cancel appointments, don't come in for check-ups and delay necessary treatment until they have a much more serious problem. The one million people who never see a dentist, the true dental phobics, are very likely to end up toothless!

With modern equipment and techniques, dentistry is now virtually painless. If you are fearful, the first step is to tell us - our goal is to provide you with the best dental care possible and we can't do that if you are not here! These are a few tips to help make your visit to our office worry-free.

Ask questions about procedures that cause you anxiety. If you know and understand what is going to happen, you will have less reason to worry.

- eat a light meal before your visit and try not to drink coffee, tea or cola as they stimulate you instead of relaxing you. Eating a rich protein snack like a lean meat sandwich will help stabilise your blood sugar and reduce irritability.
- distract yourself in the dental chair by using headphones to listen to the radio or to music you find relaxing. This will muffle noises that may bother you.
- establish a signal, such as raising your hand, to let us know you want us to stop a procedure. It will make you feel more in control and give you a chance to ask for more anaesthetic if you feel any discomfort.
- the ways you deal with stress outside the dental office will work inside too! Try thinking of pleasant things, deep breathing or relaxing your muscles one by one.
- some or all of these techniques may help you feel more at ease but, above all, don't be afraid to ask your doctor for a helping hand. That's what we are here for! It's important that your child's dental experiences are as rosy and pleasant as possible. Frightened child patients grow up to be fearful adult patients, and that usually spells disaster for dental health. That is why, when all other means of relieving anxiety fail, we may recommend premedication. Certain mild drugs eliminate anxiety and fear. Parents should check out any possible allergies. Premedication is the last resort, but sometimes the best choice for putting a fearful mind at ease.

Vocabulary to the text:

to estimate - оценивать

anxiety - тревога, беспокойство, зд. страх, боязнь

to cancel - отменять

virtually - фактически

lean meat - постное мясо

irritability - раздражительность

to distract - отвлекать

to muffle - заглушать (звук)

to spell (disaster) - означать, влечь за собой (бедствие)

at ease - свободно, непринужденно

undercut - поднутрение

Questions to the text:

1. Why is it necessary to overcome dental anxiety?
2. What can be the first step?
3. What are the other steps which make a visit to a dentist worry-free?
4. Do you agree with them? Consider some other techniques which may help a patient feel more at ease in a dentist's office.
5. In what case can premedication be recommended? Why?

Text 2. Read and translate the text into Russian. Use a dictionary if necessary.

KIDS' TEETH: COMING OF AGE CAVITY FREE

Your children's cavity-counting days can soon be over. Pit and fissure sealants are a simple and effective way to stop the decay that causes cavities, especially in kids' teeth.

Here's how they work. Sealants are clear or white plastic coatings we can apply to the chewing surface of the back teeth. The sealant material covers the depressions and grooves on the surface of teeth where cavities are most likely to form. They work best protecting new teeth. That makes them ideal for children. Sealants give those teeth some protective armour through the ages of 7 to 15 when children are most vulnerable to tooth decay.

Depending on your child's chewing patterns, the sealants can last from six months to several years. We will check them at every appointment to make sure they are still doing their job properly. Sealants are not designed for areas between the back teeth or for front teeth. And teeth that already have fillings or decay cannot usually be sealed.

It takes only a few minutes to apply a sealant, and give your child's teeth years of insurance against decay. There is no drilling or freezing. This is a proven painless technique that can help preserve your child's smile for a lifetime.

Text 3. Read and translate the text into Russian. Use a dictionary if necessary.

PORCELAIN RESTORATIONS THE PROPERTIES OF PORCELAIN

Porcelain has been used for the making of artificial teeth for such a long time that its properties are well known to all dentists. As prepared for dental purposes its

colour and translucency can be made to simulate very closely the colour and translucency of natural teeth.

The hardness of porcelain is quite considerable; it varies in different specimens but is generally considered to be about equal to that of feldspar, which stands sixth in Moh's scale of hardness, diamond being in the tenth place and at the top of the scale.

The conductivity of porcelain for heat is low, as also is its coefficient of expansion, the latter being about the same as of platinum and half that of gold.

It is a very inert substance, being absolutely unaffected by any ordinary reagent, although it is rapidly attacked by hydrofluoric acid.

The material is supplied in the form of a fine powder, which when packed into required shape and fired to a proper temperature, is converted into porcelain with which we are all familiar.

QUALITIES OF PORCELAIN

From the description of the properties of porcelain already given, it would appear to be in many respects the ideal material for dental restorations, particularly in the front of the mouth. It has, however, certain limitations. As in the case of cast gold, the restoration has to be constructed outside the patient's mouth and then cemented into position in the tooth cavity, which must therefore be entirely free from all overhanging margins or undercuts. Thus in some situations when porcelain would be very desirable, it can only be used if a considerable amount of sound tissue is sacrificed in the prepara-

tion of the cavity. This is particularly true in the case of interstitial cavities in anterior teeth (Black's Class III), which usually open proximally, and must be made to withdraw either lingually or labially if porcelain is to be used.

HYGIENE AND FREEDOM FROM HARMFUL EFFECTS

Porcelain is quite ideal in these respects, notably in the permanence of its glazed surface, in this respect contrasting markedly with the great majority of translucent cement fillings, which, as a rule, have a more or less rough surface.

The chief dental uses for porcelain are for:

- jacket crowns;
- inlays;
- additions to artificial teeth.

PORCELAIN JACKET CROWNS

A porcelain jacket crown is a crown which is constructed so as to fit over the central portion of a tooth which has previously been reduced to a sort of cone.

The cases which usually call for this type of restoration are anterior teeth which are too hypoplastic or carious to be satisfactorily restored by fillings, but which still have sufficient dentine to make a strong cone. The appearance of malformed teeth such as peg-shaped laterals, and occasionally rotating teeth, may often be much improved by means of a jacket crown, though in the latter case the position of the pulp sometimes limits the desired change in form.

Occasionally, when a central incisor has been lost at an early age, the lateral may be moved into position and later built up in the form of a central, with very good results.

PREPARATION FOR VITAL TEETH

In making a preparation for a porcelain jacket crown, care must be taken to leave an adequate amount of dentine for the protection of the pulp.

If the tooth is in normal position, the enamel should be entirely removed. The shoulder around the neck of a tooth should be less than 1 mm in width, and only sufficient tissue above should be removed to free the preparation of undercuts and allow for an even thickness of porcelain. Further destruction endangers the pulp and does not add materially to the strength of the porcelain.

Another source of danger to the pulp is from heat produced by the friction of cutting. This will be entirely prevented if all cutting is done under a stream of cold water. Occasionally, cold water is also effective in overcoming pain, but more often local anaesthesia is required as well. It is better, however, to delay giving the injection until required, as the anaesthesia obtained will last through the later stages of the preparation when it is most necessary.

If the tooth is affected by caries, softened tissue should first be removed and replaced by zinc oxyphosphate cement. The preparation may then be made irrespective of existing caries.

PREPARATION FOR PULPLESS TEETH

It is sometimes desirable to make a jacket crown instead of a post crown in the case of a pulpless tooth. This is always worthwhile if a jacket crown is also required on one of the adjoining teeth, as the two crowns may then be matched

exactly. It is sometimes also the best method when a crown is being made for a tooth which has had a root resection, as in these cases the root is not always long enough for an adequate post. A slightly shorter post will often be enough to strengthen the core or even to support an artificial core cast in gold. Whenever there is sufficient dentine left, the former method should be adopted, as an entire gold core tends to show through porcelain and spoils its appearance. This difficulty may, however, be overcome to some extent by the use of an opaque porcelain as the first layer in the building of the crown.

Text 4. Read and translate the text into Russian. Use a dictionary if necessary.

WHAT SHOULD BE DONE ABOUT WISDOM TEETH?

There are many good reasons for removing wisdom teeth also known as third molars, there are also some risks and complications that are possible when extracting these teeth and sometimes there are some good reasons for leaving them alone. The decision on a specific course of action must be determined by a well-informed doctor and patient working together.

Consider first the many reasons that people choose to have their third molars extracted. The mouth is often too small for these teeth to fully erupt into a good functional position. This leads to one of several situations: • the teeth remain completely buried in the bone of the upper and lower jaws in which they developed, a condition known as impaction. In case of a fully impacted tooth, it may continue to sit in the bone, surrounded by the normal cyst in which all teeth develop. It may also happen that the normal cyst, later in life, enlarges and may even develop changes

in the cells that line the cyst. When such cysts get large enough, they should be removed and examined by a pathologist;

- the teeth begin to erupt but are not able to assume their correct upright position. Most commonly the upper third molars will tend to face out towards the cheeks while the lower third molars will lean forward with just a small portion of the crown protruding through the gum. Teeth that are partially erupted lead to two problems.

First, they make hygiene of the second molars difficult leading to increased possibility of decay and gum disease (periodontal disease) around these important teeth. Second, the pink flap of gum tissue which partially covers the erupting tooth creates a warm, moist and dark pocket where bacteria which normally live in the

mouth can use the food you eat to flourish, multiply and cause infection known as pericoronitis.

It is easy to understand why many people choose to have their wisdom teeth extracted while they are young and healthy and the teeth are surrounded only by a small normal development cyst rather than have to undergo a more extensive surgical procedure later in life when their recovery may not be as easy and their general state of health may not be as good.

Finally, some dentists subscribe to the theory that wisdom teeth may push the other teeth in the mouth forward and cause crowding and misalignment.

RISKS AND POTENTIAL COMPLICATIONS

Some risks and complications are common to all surgical procedures. These are infection, swelling, bleeding and the risk of anaesthetic itself.

And there are some risks/complications that are unique to the removal of third molars:

- the upper third molars have roots which often are separated from the maxillary sinuses by only a very thin layer of bone. Occasionally, a small communication is established between the sinus and the oral cavity when one of the upper third molars is removed. If this is the case, the normal procedure is for the area to be sutured and closed, appropriate antibiotics and decongestants to be prescribed, and the patient reappointed for follow-up. Most often this results in an uneventful healing period with no further treatment required. Occasionally, the area will heal open rather than closed, in which case an additional small surgical procedure will be required to close the communication.

- the lower third molars often have roots that lie very near or even wrapped around the inferior alveolar nerve. This is the nerve that supplies feeling to the lip, teeth and tongue on each side of the mouth. Occasionally, when a lower third molar is removed, that nerve will be bumped or bruised and, if so, a change in sensation may be noted on that side. It is important to understand that this is a sensory nerve and does not affect the ability to move the parts of the oral cavity to which it gives sensation (feeling). In most cases, the nerve heals itself but, because nerves heal slowly, it may take six months to one year before return of normal sensation. Very rarely, the damage to the nerve is permanent.

Text 5. Read and translate the text into Russian. Pay special attention to the questions and the answers given.

PERIODONTAL DISEASE

Periodontal disease affects 90% of all adults and causes 70% of all adult tooth loss. It is a pathological process affecting the periodontium, the tissue that invests and supports the teeth, the gingiva, cementum, periodontal ligament and alveolar and supporting bone. The disease results in inflammation of the supporting tissue of the teeth. This, in turn, results in a progressively destructive change leading to loss of bone and periodontal ligament. If the disease continues to progress without intervention, it results in compromised dentition.

What are the signs of periodontal disease?

1. Bleeding gums - your gum should never bleed.
2. Loose and migrating teeth.
3. Halitosis.
4. Swelling and abscess formation.
5. Recession of the gingiva.
6. Vague aching or itching of gums.

What are the treatment modalities?

Periodontal treatment is designed to eliminate the irritating factors, plaque and calculus. Ideal treatment consists of oral hygiene instruction, supraand subgingival scaling and antibiotic therapy. There is an abundance of evidence gathered over many years by numerous researchers that conventional periodontal treatment including surgery, combined with good microbial plaque control, is successful in arresting most cases of periodontal disease.

Today there is a growing debate regarding surgical versus non-surgical treatment of periodontal disease. Non-surgical periodontics involves a conservative approach toward treatment. Basically, it consists of all treatment modalities mentioned, without including surgery except in rare instances. In addition, a phase contrast microscope can be used to monitor the microbial environment.

What are the advantages of non-surgical periodontal therapy?

1. The obvious advantage of non-surgical periodontal treatment is that it doesn't require surgery and its attendant discomforts. And since fear is one of the prime

deterrents to periodontal care, reduction in the possibility of pain can bring the benefit of care to larger groups.

2. There is less post-treatment root exposure, which reduces the possibility of temperature sensitivity and root caries.
3. Better aesthetic affects are achieved due to preservation of the gum tissue position as near the tooth crown as possible.
4. Some or all of this treatment may be performed by dental hygienists.
5. Bone tissue is not reduced in an attempt to create normal contour since the technique depends upon bacterial control regardless of tissue deformity.

What are the disadvantages of non-surgical therapy?

1. The dentist and periodontist have a greater responsibility to make an accurate diagnosis, explain their findings and treatment regimen, and discuss alternatives.
2. The patient's oral hygiene skills and motivation must be exceptional.
3. The technique is less predictable.
4. The maintenance interval and the instrumentation required at each interval become more critical. Patients on non-surgical maintenance care usually need more anaesthetic and more instrumentation.

What does the surgery involve?

Periodontal surgery involves elevating the entire soft tissue complex from the underlying alveolar bone by blunt dissection. The alveolar bone is exposed and made accessible for debridement and resection, thus promoting healthy generation. With the roots of the teeth exposed, the periodontist can remove plaque, calculus and stain from the previously unexposed tooth structure. The tissue is repositioned to the height of the alveolar bone and sutured. This eliminates the periodontal pocket which results in improved maintenance.

Text 6. Read and translate the text into Russian. Use a dictionary if necessary.

PERIODONTAL DISEASE IN CHILDREN

Although periodontal disease is more prevalent in adults, it's important for parents to realise that the disease affects all age groups. About 10 per cent of American children suffer from a virulent form of gum disease known as juvenile periodontitis. This rapidly advancing form of gum disease usually strikes the permanent teeth of otherwise healthy children. The disease often lacks symptoms,

and the gums appear normal. Often, routine dental radiographs reveal bone loss around the teeth, and the disease is then diagnosed.

Some research indicates that a plaque-induced gum infection is responsible for the disease; others blame hormonal changes taking place during adolescence that may affect the body's immune system. Recent research suggests the disease may be hereditary and transmitted through the mother's genes.

When diagnosed early, juvenile periodontitis can be treated. If neglected, it can spread beyond the initially affected teeth to the remaining teeth and result in loss of permanent teeth.

Remember, check your teeth often for signs of gum disease. Practice good oral hygiene at home, and see your dentist regularly for professional cleansing and treatment. Early detection and treatment of periodontal disease can save time and spare painful, costly complications.

Text 7. Translate the text into Russian in written form using a dictionary.

FOOD'S EFFECT ON TEETH

If you are like many people, you probably eat more food than you really need, and the excess may take the form of sugar-rich between-meal snacks such as candy, coffee or tea sweetened with sugar, and sugar-laden soft drinks.

Foods containing starches may also cause tooth decay. Starch is present in cereals, bread, vegetables, fruits and processed foods. Researchers are not yet sure of the impact of starchy foods on the teeth. Some believe such foods are harmful if they are eaten frequently throughout the day; others believe they are not harmful unless they also contain sugar or are eaten with foods containing sugar.

The decay process begins with plaque - a sticky colourless layer of harmful bacteria constantly forming in the mouth. When you eat foods that contain fermentable carbohydrates (sugars and starches) bacteria in plaque produce acids that can destroy tooth enamel. Each time acid is produced, it attacks the tooth enamel for about 20 minutes. After repeated acid attacks, the tooth enamel may break down and a cavity results.

When should I begin cleaning my child's teeth?

Even before teeth begin appearing, you should start cleaning the child's mouth to keep food residue and bacteria from damaging newly erupted teeth. After every feeding, wipe the baby's teeth and gums with a damp washcloth or a gauze pad to

remove harmful plaque. You can sit on the sofa with the baby's head in your lap to make sure you can easily see the baby's mouth.

If plaque is allowed to build on the baby's teeth, the tooth enamel could become decayed. If the decay is left untreated, the primary teeth may be prematurely lost. Children need all 20 of their primary teeth for proper eating, speaking, and appearance. These teeth also reserve space in the jaw for the permanent teeth that later erupt. A complete set of healthy primary teeth allows proper development of a child's jaw and face. You should begin brushing and flossing your child's teeth after each meal or snack and before bedtime when all the primary teeth have erupted - usually when the child is between 2 and 3 years old. Ask your dentist to recommend a toothbrush for your child. Generally, a brush with soft, end-rounded or polished bristles is recommended because it's less likely to injure the gums. Children often need smaller brushes than those designed for adults. Toothbrushes should be replaced when bristles become bent or frayed, usually every 3 to 4 months. Pre-schoolers often wear out toothbrushes quickly because they brush imperfectly and chew on the brush. Inspect your child's brush often; wornout bristles do not remove plaque effectively.

Keep your child's teeth clean from the start. If you notice any signs of decay in the primary teeth, see your dentist promptly.

Text 8. Read and translate the text into Russian.

DENTAL EDUCATION IN GREAT BRITAIN

Curricula and teaching plans of dental education in Great Britain are not uniform and are arranged independently at each university, but in practice they are fairly similar since they are guided by the common recommendations of the General Dental Council.

The allocation of the dental course by departments in different universities is not identical. As a rule, there are the following departments: conservative treatment of the teeth (including fixed prostheses), sometimes endodontic departments (treatment of pulpitis and pericementitis), periodontal (periodontal disease and diseases of oral mucosa); prosthetic (all kinds of removable prostheses); and pedodontic including orthodontics, as a rule. The latter is now and then an independent course but is more closely joined to the children's department and is not often linked with prosthetics. In some schools there is a prophylaxis department and an independent radiological department.

The organization of the teaching process varies in different schools. In some, there is a cyclical system when a student works in one clinic for some months, then goes on to another. In others, a parallel system is introduced when a student works the whole term or a year in several clinics.

At present great attention is paid (and correspondingly a great number of hours are spent in dental schools) to the teaching of children's dentistry. Gradually children's dentistry is becoming a leading discipline in the training of the dental student.

Fees for teaching are paid by students in all universities, in particular, for teaching at dental faculties. There are no government scholarships for students. A proportion of them receive grants from the county education department, and have to work off these grants on completion of their training. Some distinguished students receive university scholarships.

On completion of the training young specialists make their own arrangements for their work. A proportion of them, having received county grants, have to work off the grants received after the period of instruction. The majority start work as assistants to dental surgeons in general practice. Some manage to succeed in working up to an independent practice. To begin teaching or to take up a post of a scientific worker it is necessary to work for some years as a house surgeon and registrar in a hospital. It is necessary to spend a particularly long and many-staged training to be permitted to work in a surgical department of a hospital.

A school for dental auxiliaries was established in Great Britain only a decade ago. The length of training is two years. The first year consists of general preclinical training with elements of theory and work on the phantom head. Clinical training in the children's dental school takes place in the second year. On completion of their training the students are intended to be sent to dental surgeries of local children's schools, where they will work under the direction and supervision of a dental surgeon, carrying out, apart from procedures of hygiene (removing calculus, teaching the correct hygiene of the oral cavity), treatment of uncomplicated caries and extraction of deciduous teeth under local analgesia.

This type of an auxiliary is called a dental hygienist. The most important single aid to a dentist is an efficient chair assistant. The chair assistant should be able to help a dentist in all situations relating to operative procedure; therefore she should have the ability to identify and prepare materials, instruments and equipment for any routine dental procedures. Knowledge of sterilization, medication including anesthesia, tooth form and function, diet, nutrition, oral inflammation and first aid

is important for the chairside assistant. It is also helpful for her to know roentgenographic techniques, office routines and supply management. In general, the teaching in all dental schools is divided into two stages. The quantity of general medical subjects is considerably smaller than in the curriculum of Russian institutes (general pathology, bacteriology, general medicine and some other clinical disciplines). Special subjects such as anatomy and physiology of the oral cavity, pathology of teeth and oral cavity (including regional pathology and anatomy) and (in some schools) dental diagnosis are also included in the curriculum. The study of special clinical disciplines begins in the majority of schools with a rather extensive course in dental mechanics and study of dental materials, and a course of phantom head work in conservative dentistry from four to six months long. Great attention is paid to the technical training of a future dental surgeon.

Text 9. Read and translate the text into Russian and answer the questions that follow.

THE COLLEGE OF DENTISTRY OF NEW YORK UNIVERSITY

Part 1

It is the third oldest and the largest private dental school in the United States. It is administered by the Kiser Dental Centre and is composed of clinics, laboratories, and other teaching facilities contained within several buildings. Since its foundation, New York University has been a private university, operating under a board of trustees and deriving its income from tuition, endowment (пожертвования) grants from private foundations and government, alumni, corporations and other philanthropic sources.

Being founded in 1865, the New York College of Dentistry became an integral part of New York University in 1925. With its prestigious background and contemporary perspective, the College of Dentistry, through significant contributions to dental education, research and patient care has extended its influence around the world.

A few years ago the College of Dentistry reached a decision to expand its previous three-year curriculum to a four-year curriculum. The curriculum is a synthesis of many areas of knowledge, including biology, physics, biochemistry, medicine, surgery, biomechanics, aesthetics, manual skills and social sciences. In addition to providing the student with a biological and social basis for application of clinical skills, the educational programme focuses on prevention as a much desired goal in

dental practice and research. Advances in the dental sciences and the increasing dental health needs of the public call for an understanding of general health problems and greater cooperation with other health professions.

The educational goal is to educate and train clinically competent and sophisticated general practitioners, well-grounded in both basic and clinical sciences, fully prepared to adapt to changes in dental care needs and ready to keep up-to-date with the developing dental knowledge.

Part 2

During the first and second years, the course includes both basic sciences and clinical sciences. Students receive instruction in principles of human behaviour, utilization of auxiliary personnel, practice management and other areas relating to the organization of work. They also have courses in nutrition, normal mastication, physical diagnosis and life support and cardiopulmonary resuscitation. Students are also required to choose one of the humanities electives. During the third year extensive didactic instruction is given in endodontics, fixed prosthodontics, occlusion, operative dentistry, oral and maxillofacial surgery, oral diagnosis, orthodontics, pedodontics, periodontics, radiology and removable prosthodontics. At the same time, special attention is being paid to instruction in general and oral medicine, detection and treatment of oral, and facial cancer, cariology. The fourth year is devoted essentially to the Comprehensive Care and Applied Practice Administration Programme which will orient the student preparing him/her for the practice of general dentistry and for providing comprehensive dental care in practice setting.

Clinical practice during the first and second years begins with a series of lectures on the dental patient aimed at preparing the student for the duties and responsibilities of everyday practice. The student learns the importance and the role of the dentist as part of the health team. During the second, and continuing into the third and fourth years, each student is assigned patients. Duties begin with examination of the patient and end only when the patient's dental health is restored to the best possible state. The students

are responsible for treatment planning, making appointments and providing dental treatment.

Research. While the College of Dentistry has long considered its primary mission is teaching, it has placed considerable emphasis on its research activities believing

that an essential part of the education of dental students lies in the understanding of how research contributes to knowledge.

Requirements for Admission. All students applying to the New York University College of Dentistry must meet the minimum requirements as follows:

1. Completion of at least three years of study (a minimum 90 hours) in an accredited college or university.
2. The following minimum course requirements must be met: English - 6 semester hours' credit.

Biology and physics - 6-8 semester hours' credit.

Inorganic chemistry - 8-12 semester hours' credit.

Organic chemistry - 6-8 semester hours' credit. Additional courses in comparative anatomy, embryology, histology and electives are recommended. Courses fulfilling the above requirements are offered by the New York University's College of Arts and Science at Washington Square.

Notes:

alumni (plural from «alumnus») students - БЫВШИЕ СТУДЕНТЫ electives -
зд. факультатив

Questions:

1. What is the oldest and largest dental school in the USA?
2. What is this dental school composed of?
3. Is New York University a state or private university?
4. What is the period of study at the College of Dentistry?
5. Do the students study social sciences there?
6. What does educational programme focus on?
7. What is the educational goal of this oldest dental school?
8. How is the idea of cooperation with other health professions reflected in the first and second-year curricula?
9. In what way does the curriculum in the third year differ from those in the first and second years?
10. What is the aim in the fourth year?

11. When does clinical practice start? How does it begin?
12. When is a student assigned patients?
13. What are the student's duties in the course of clinical practice?
14. Who is responsible for treatment planning?
15. Why does the College place considerable emphasis on research?

Text. 10. Read and translate the text into Russian. Use a dictionary if necessary.

FORENSIC DENTISTRY

Forensic dentistry is an investigative aspect of dentistry that analyzes dental evidence for human identification. The forensic dentist plays an important role in our justice system. This field of dentistry is divided into forensic odontology and jurisprudence (the science of law). Forensic odontologists study and identify teeth, jaws, prostheses, dental appliances, bite marks, dental injuries, and dental records in the interest of justice.

Forensic dentistry is one of a number of forensic sciences. Other forensic sciences are listed below:

1. **FORENSIC ANTHROPOLOGY** examines and interprets skeletal evidence with methods used by archaeologists and with knowledge of human biological variation. This evidence includes bones, teeth, hair, clothing, artifacts, and scene analysis. The examination considers time of death, age, sex, race, body size and weight, individualization, and the cause and manner of death.
2. **FORENSIC PATHOLOGY AND BIOLOGY** utilizes autopsy, tissue study, and review of medical records in the investigation of injury or death as a result of accident, homicide, or suicide. Legal responsibility usually resides with a medical examiner or coroner. The criteria for death is irreversible cerebral function. The forensic pathologist attempts to determine and report on the (a) cause, (b) manner (homicide, suicide, accident, or unknown), and (c) mechanism of death.
3. **CRIMINALISTICS** includes fingerprints, ballistics, tool marks (chisel, hammer, etc.), and scene investigation to identify and analyze physical evidence in order to reconstruct the crime and to connect or eliminate suspects and victims.
4. **TOXICOLOGY** utilizes chemistry, photography, and biology to identify harmful substances within a body. These include medications, poisons, and illegal drugs.

5. FORENSIC PSYCHIATRY examines and testifies about the aspects of legal sanity, human motivation, and possible personality profile.
6. FORENSIC ENGINEERING uses engineers to investigate incidents such as airplane crashes, auto accidents, and structural collapse.
7. QUESTIONED DOCUMENTS TECHNICIANS study and report about printing, typewriting, handwriting, ink, paper, and other features of documents.
8. GENERAL FORENSICS involves other specialists who are qualified to analyze specific evidence such as designers, photographers, and technical experts. They might report, for example, in a case of product liability associated with death or injury.
9. FORENSIC JURISPRUDENCE involves criminal and civil lawyers using the earlier described specialists, reports, and testimony to pursue their case in our system of justice.

Notes:

forensic dentistry - судебная стоматология

homicide - убийство

suicide - самоубийство; суицид

coroner - следователь, производящий дознания в случаях

- насильственной или скоропостижной смерти

Text 11. Translate the text into Russian in written form using a dictionary.

DENTISTRY AND HUMAN IDENTIFICATION

Dentistry often has much to offer in identification because teeth are the most durable parts of the body and dentitions are as individual as fingerprints. Situations involving decompositions and skeletal remains will yield no recognizable facial features or fingerprints. Postmortem (after death) teeth, jaws, prostheses, and appliances can yield a positive identification, given antemortem (before death) records.

Erroneous suspected identifications are often eliminated. The benefits of this are such that even with the lack of antemortem records, the effort is worthwhile to aid investigators with information from dental aging, sexing, and estimated socioeconomic grouping derived from restorative materials, attrition patterns, periodontal status, eruption patterns, skeletal features, and serology.

Forensic dental techniques most commonly include collection and preservation of dental and jaw remains, dental radiology, photography, impressions and casts, antemortem and postmortem charting, and the comparison of these records.

Features are referred to as Points of Comparison and include (a) the number and identity of teeth, (b) tooth rotation, spacing, and malposition, (c) anomalies, (d) restorations and prostheses or appliances, (e) caries, (f) endodontic treatment, (g) implants

and surgical repairs, (h) pathology, (i) bone patterns, and (j) occlusion, erosion, and attrition.

DNA can be recovered from periodontal and pulpal tissues, and although DNA analysis has become an important tool in the forensic science armamentaria, it too has limitations including, but not limited to, time and cost. Forensic Dentistry techniques retain a valuable place in the scope of forensic sciences.

A well-organized approach results in accurate comparisons and minimizes the chance of error. The examiner should record each feature of the postmortem teeth and jaws and the radiographs on a standardized dental chart. The forensic dentist must carefully organize all evidence so that it is analyzed in a systematic manner using consistent and standardized methods.

Notes:

durable - прочный, крепкий

DNA (deoxyribonucleic acid) - дезоксирибонуклеиновая кислота, ДНК

armamentaria - оборудование лаборатории; оснащение

врачебного кабинета (включая инструментарий, аппаратуру и т.п.)

Text 12. Read and translate the text into Russian. Use a dictionary if necessary.

BITE MARKS

Numerous homicides and attack cases have been solved by bite mark identification, analysis, and comparison. Many bites are severe and leave telltale marks long after an assault. Dental casts and photographs from the suspect are made after obtaining a court-ordered search warrant. These techniques can be useful in solving some child abuse cases in addition to many assaults and homicides.

New technologies are coming to use in bite mark analysis to recover saliva DNA, digitalize photographic images, and preserve the unalterable original image on

computers. Details may be highlighted to better see patterns but without physical change to the image. This method has withstood «chain of evidence* requirements. In the past, bite mark analysis had the vulnerability of some subjectivity and the inability to numerically quantify certainties. Today, when DNA can be collected, amplified, and analyzed with the standard accepted modern methods, it is possible to quantify the numerical probability of the association between the biter and the bite mark injury.

The forensic dentist must first establish the mark as a human bite mark, then identify, if possible, the teeth involved in the mark. Possibilities may involve missing, extruded, hypoverupted, rotated, tilted, chipped, and anomalous teeth. The dental forensic examiner must also consider the possibility of animal bites, victim self-bites, and marks from foreign objects that might be mistaken for a bite mark. Separate analysis of those markings may be useful to law enforcement agencies by connecting the victim's injuries to a tool or instrument owned by a suspect.

Law enforcement agencies are becoming increasingly aware of potential identifications from the dental profession.

The notorious mass murderer Ted Bundy (executed January 1989) was positively identified as the responsible person by his bite marks found on the buttocks of one of his young female victims. John Wayne Gacy of Chicago, convicted of 33 counts of murder, became a real test of the vital role forensic dentistry plays in the identification of the involved victims. Only five of the human remains found still had soft tissue, making the identification process a challenge. However, 20 of the 33 known victims were identified through their dental records.

Notes:

abuse - жестокое обращение

assault - нападение

search warrant - ордер на обыск

enforcement agency - организация по обеспечению правопорядка

notorious - печально известный

Text 13. Read and translate the text into Russian using a dictionary and be ready to summarize it.

MASS DISASTERS

Forensic dentists have made many contributions to the identification of bodies involved in air crashes, mass homicides, structural collapses, floods, and similar disasters. The large volume of specimens and records demands a team approach with excellent organization.

The dental team is best organized into antemortem and postmortem teams of two examiners per team. One person handles the specimen and examines the radiographs, while the other person charts findings. The examining pair then reverses roles and checks each other's efforts. Antemortem charting and records must be done separately and stored separately from postmortem evidence during the investigation. An air crash investigation,

for example, can result in dozens to hundreds of records and take days to weeks to complete. Long hours of work are involved, as authorities and families seek answers and identifications quickly. There must be organization to avoid errors and oversights from fatigue and to provide the numbers of team members required to complete a project.

In mass disasters and in single human identifications, success at the task goes to the undaunted and determined examiner. Knowledge of dental anatomy is a basic. Dental forensic examiners also use close-up photography systems.

One particular disaster highlights vividly the unique skills and tremendous value of a forensic dental team in the accurate identification of bodies. Few can ever forget the horror that occurred at 8:30 p.m., 17th July 1996 off East Moriches, New York: the explosion of a 747 airplane, TWA flight 800 bound for Paris, France, with 230 passengers aboard. Within the first 12 hours, a team of 30 dentists, began the painstaking work of identifying the recovered bodies, which were devoid of clothing. Two and a half weeks later, 208 of the 210 recovered bodies and body parts had been positively identified. Identification of 95 was by dental records alone, another 60 by dental records along with medical records (radiographs, MRIs, etc.), medical anomalies, fingerprints, etc.

For the first time ever, all relatives were screened for DNA samples to compare with the more than 400 recovered body parts, enabling the return of each to the families for an appropriate resting place. Nuclear DNA samples were extracted from both bone and dental pulps, which was all that remained after the first week. Mitochondrial DNA was also extracted from ground tooth structure, but it is only effective in matching females.

One victim was identified by examining DNA on toothbrushes in his home. During toothbrushing, microscopic bits of tissue from the gums and mucosa are scrubbed

off. In all, seven people were identified by DNA alone because no other method was available.

Altogether, 61 dentists and 22 auxiliary dental personnel participated in this important forensic project.

Summarise the text «Mass Disasters» using the following words and introductory phrases:

the text deals with..., it is said that..., according to the text..., forensic dentist, identification of bodies, disaster, mass homicides, dental team, dental and medical records, summing it up..., in conclusion I'd like to say that... .

Text 14. Read and translate the text into Russian. Use a dictionary if necessary.

COMPOSITE RESINS

There are several groups of composite resin materials; although most are tooth-coloured, some have been designed for use in anterior teeth, where appearance is most important, while others have been designed for posterior teeth where strength and abrasion resistance are of prime importance. In both cases the material is capable of being attached physically to the enamel by means of the acid-etch technique. Composite is strong in thin section when attached to enamel and so the enamel margins can be bevelled.

Composite resins can be attached to dentine by chemical bonding materials or via an intermediate layer of glass ionomer cement. Unfortunately, the bond to dentine is not as strong as the bond to enamel. Since the material shrinks as it sets, there is a danger that it will move away from the dentine towards the enamel in cavities bounded by enamel on one side and dentine on the other, as commonly occurs with cervical cavities.

All composites are a mixture of a resin and a filler. Fillers include quartz, fused silicon, and various types of glass including aluminosilicates and borosilicates. Some contain barium oxide to make the material radiopaque. Radiopaque materials must always be chosen for posterior teeth so that the material can be distinguished from dental caries on radiographs.

Conventional composites contain 60-80% by weight of quartz or glass particles of sizes ranging from 1 to 50 μ m.

Particle-size distribution may vary from one composite to another. The more modern materials contain larger quantities of smaller particles, making the material easier to smooth and polish.

Notes:

composite resins - композиционные (зубопротезные) пластмассы

capable - способный

etch - травить, вытравливать

acid-etch technique - методика травления кислотой

bevel - снимать фаску, скашивать

bond - связывать; связь, соединение

quartz - кварц

conventional - обычный

Answer the following questions to the text:

1. What is a composite?
2. What is the difference between various groups of composite resins?
3. How can composite resins be attached to dentine?
4. What do conventional composites contain?

Text 15. Translate the text into Russian in written form using a dictionary.

ALLOYS Part 1

GLASS IONOMER CEMENTS

Glass ionomer cement is the most recently developed restorative material in general use. It adheres chemically to enamel and dentine. The bond to enamel is stronger than the bond to dentine because enamel is more highly mineralized. However, the chemical bond of glass ionomer to enamel is not as strong as the physical bond of composite to acid-etched enamel.

Glass ionomer cements are water based. They are routinely used with conditioning agents (a 10-second application of 10 per cent polyacrylic acid) to remove part of the smear layer. This is important to achieve the optimum adhesive bond.

'Cermet' is a version of glass ionomer cement which contains silver powder. Since the silver particles destroy the tooth-like appearance of the material, it is only used in posterior teeth.

Part 2

CAST GOLD AND OTHER ALLOYS

The advantage of cast metal is that it is strong in thin sections and can be used to protect weakened tooth structure. This property is the major reason for using cast metal restorations, and cavities are designed so that weakened cusps are protected by a layer of metal. The cavity is prepared in such a way that the restoration (an inlay) is made outside the mouth and then cemented into the cavity.

At one time the small gold inlay was a popular restoration and innumerable inlays have served well for many decades. However, they cannot now be regarded as cost-effective by comparison with improved amalgam and other restorative materials and so are seldom made by most dentists. Therefore, the cavity design for small gold inlays is of only limited practical importance, but inlays still have a role to play for larger restorations protecting the tooth.

Notes:

glass ionomer cement - стеклоиономерный цемент

smear - зд. липкое вещество

cast gold and other alloys - литьё из золота и других сплавов

cusp - острый край зуба, жевательный бугорок

Answer the following questions to the text:

1. What restorative material is in general use?
2. Why is the bond to enamel stronger than the bond to dentine?
3. What is «Cermet»?
4. Why is «Cermet» used only in the posterior teeth?
5. What cast is used to protect weakened tooth structure?
6. Why are small gold inlays seldom made by dentists?

Text 16. Read and translate parts 1 and 2 of the text given below into Russian and answer the questions that follow them.

TREATMENT OF APPROXIMAL CARIES, TRAUMA, DEVELOPMENTAL DISORDERS, AND DISCOLORATION IN ANTERIOR TEETH

Part 1

CONDITIONS AFFECTING ANTERIOR TEETH WHICH MAY NEED RESTORATIONS

The conditions affecting anterior teeth are as follows:

- smooth surface caries;
- approximal caries;
- trauma;
- developmental disorders;
- discoloured teeth;
- tooth wear.

Approximal caries

Enamel caries starts on the approximal surface of anterior teeth just gingival to the contact area. It is less common than pit and fissure caries in the approximal surfaces of posterior teeth. This is because the anterior teeth are more likely to occur when the teeth are crowded and overlapping, because this increases the difficulty in cleaning between them.

It is difficult to diagnose early enamel caries at the white spot lesion stage, and so when a patient presents with established caries into dentine in one or more anterior teeth it is possible that the other contact areas have early enamel lesions. For this reason preventive treatment is important, including suitable dietary advice, the use of fluoride supplements (toothpaste, rinses, varnishes) and teaching the patient to use dental floss interproximally.

Dentine caries can usually be seen by transilluminating the tooth, either with light reflected from the mouth mirror or by a fibre-optic light.

Transillumination is more effective with anterior than posterior teeth because they are thinner. If dentine caries is visible, then it is usually too late for a prevent and observe approach; a restoration is needed.

Approximal caries which also involves the incisal edge

A neglected carious lesion, or secondary caries around an approximal restoration, may undermine the enamel of the incisal edge to the point where the corner of the incisor breaks away under occlusal forces. Dentine caries balloons out in all directions from its approximal origin, and by the time that it undermines incisal enamel it is often close to, or already affecting, the pulp. The diagnosis of the caries is straightforward, but a vitality test and periapical radiograph are required to assess any pulpal involvement and/or spread of infection into the periapical tissues.

Trauma

Accidental damage to teeth has one of the following effects:

- fracture of the incisal edge involving enamel only;
- fracture involving enamel and dentine;
- fracture involving enamel, dentine, and pulp;
- root fracture;
- cracks in the crown of the tooth without loss of enamel;
- no visible damage but damage to the pulp or its blood supply, leading in the long term to pulp necrosis;
- partial or complete luxation of the tooth.

The restoration of enamel and dentine fractures will be dealt with here. A broken incisal corner involving the incisal edge and parts of the approximal surfaces is treated rather similarly to approximal caries which involves the incisal edge.

Developmental disorders

Previously, small areas of enamel hypoplasia were considered, and the treatment technique described involved preparation of the tooth and the insertion of a shallow restoration. In this article, larger areas of hypoplasia or discoloration are discussed. The techniques described are also suitable for other malformations including diminutive or peg-shaped teeth.

Discolored teeth

Several developmental disorders result in discolored teeth. However, a common cause of a single discolored tooth is pulp necrosis, where the breakdown products of hemoglobin discolor the dentine. A bleaching technique to improve the appearance of such teeth can be implemented in such cases.

Tooth wear

Tooth wear involving the incisal edges is also common. With modern diets, teeth do not wear appreciably at their approximal surfaces, although this did happen with primitive man.

Questions to part 1 of the text:

1. How are enamel and dentine carious lesions diagnosed?
2. What can you say about secondary caries?

3. What other conditions affecting anterior teeth are known to you?

Part 2

TREATMENT OPTIONS

Composite resin materials came into general use in the late 1960s and early 1970s. This produced a revolution in the restoration of anterior teeth, allowing procedures to be undertaken, using the acid-etch retention technique, that were impossible with any previous material. Today, with the added versatility of light-curing materials many anterior teeth which would previously have been treated by crowns or extractions can be restored simply.

Uses and limitations of anterior composite materials

Provided that the occlusion is favorable, virtually the entire crown of an anterior tooth can be built up with composite, at least as a short-term restoration. This means that the majority of teeth with approximal caries, caries or trauma affecting the incisal edge, and many of the developmental disorders can be treated with composite alone. Tooth wear affecting the incisal edges is less successfully treated with composite since it tends to wear away quickly or break off. If it remains in place, its abrasiveness may increase the rate of wear of the natural opposing teeth. Composite is limited in its use by the fact that it has a relatively low abrasion resistance, although composites vary in this respect, and also it sometimes becomes stained or develops a rough surface. Generally speaking, composites with a higher proportion of resin are prone to staining and those with a higher proportion of coarser particle size filler become rough as the surface wears down. These rough surfaces accumulate both plaque and extrinsic stain. If the occlusion is unfavorable, composite in contact with the opposing teeth will tend to break or lose retention.

Composite materials for anterior teeth are available in a variety of shades and in more opaque or more translucent versions. With large restorations it may well be necessary to use more than one shade to produce gradual colour changes across the surface of a tooth to match adjacent teeth.

Retention of composite to dentine

Anterior composite material should always be retained to the enamel by the acid-etch technique, even if the cavity is naturally undercut. This increases the marginal seal and reduces staining at the margins. However, composite is not retentive to dentine. In cavities, where the entire periphery is enamel, this does not matter because retention to enamel is sufficient, but in larger cavities where part of the border is apical to the cement-enamel junction and therefore has no enamel, retention to dentine is necessary. This is achieved in one of two ways:

- by an intermediate layer of glass ionomer cement;
- by means of a dentine bonding agent.

The traditional method of retention is by means of retentive grooves and/or pins, and these have served for many years. Many dentists routinely used retentive grooves in dentine and a pin to support and retain composite replacing a broken incisal corner. However, even gold-plated pins may produce some discoloration in the composite, and their insertion carries some risk to the pulp. The use of glass ionomer cements or dentine bonding agents has now made these methods unnecessary.

Dentine bonding agents have been available for several years but are still being evaluated. Although the clinical results and laboratory tests for the early materials showed them to be effective in retaining composite to dentine surfaces, it became apparent that they were hydrolysing in the long term and reducing the durability of the bond. In addition, polymerization shrinkage of the composite may cause high stress at the bond.

Another problem with several of the dentine bonding systems which have been developed over the last few years (and in many cases these have disappeared from the market) was the complexity of the systems, with several bottles of liquid to be applied for different times. Many dentists found this too confusing and time-consuming to bother with. The newer dentine bonding agents are simpler to use, but do not yet have long-term clinical trial results to support their application. Yet another problem in using dentine bonding agents is that with large restorations it is necessary to use incremental packing, which is fiddly and time-consuming.

In contrast, glass ionomer cements are retentive to dentine, release fluoride, and have less polymerization contraction, so that they can be used in bulk to replace all the dentine, leaving space for one increment of composite

to replace the enamel. Glass ionomer cements are now available both in their original auto-curing form and as resin-modified glass ionomer cements.

This is a developing field, and clinical research in the next few years is bound to influence clinical practice. At present, with large restorations where additional retention to dentine is needed for composite, the preferred approach is the glass ionomer cement-composite layered restoration.

Porcelain veneers

Porcelain veneers are cemented with composite resin to cover all or part of the labial surface of an anterior tooth. Porcelain has been used for crowns for over a

century and is a very satisfactory restorative dental material in that it maintains its colour and surface gloss and is compatible with soft tissues.

Indications for porcelain veneers are where one or a number of anterior teeth are discolored or misshapen in such a way that it is necessary to cover the entire labial surface to disguise the problem and yet the other surfaces are sound. The advantage of porcelain over a composite veneer is that it is more durable in terms of colour and surface gloss, although it is more likely to fracture. The advantage of a porcelain veneer over a crown is that the tooth preparation is more conservative and also, because the palatal surfaces of upper incisor teeth are not prepared, the occlusion is not affected. However, some reduction of the labial surface is usually necessary and so the procedure is not reversible. The restorations are time-consuming and involve laboratory costs which are often as high per tooth as the cost of a crown. If the tooth being covered is very darkly stained, the thin veneer does not sufficiently disguise the colour and so it has to be made more opaque. For these reasons porcelain veneers have by no means replaced crowns and are unlikely to do so. However, they form a useful addition to the operative dentist's techniques.

Other materials and forms of treatment

The other two tooth-colored materials which have been used to restore anterior teeth in the past are silicate cement and acrylic resin (polymethyl methacrylate). Neither of these materials is used now for permanent restorations, but many patients still have restorations in one or other of them. Silicate has the advantage of leaching fluoride and so is similar to glass ionomer cement in producing caries resistance. Its main disadvantages were its poor strength, so that it could not be used for incisal edge restorations, its poor solubility, so that the surface became progressively lost in many cases, and its low pH before it set, so that careful precautions had to be taken to avoid pulpal damage.

Acrylic used as a direct filling material has a very high coefficient of thermal expansion and so expanded and contracted more than the adjacent tooth tissue, producing rapid marginal leakage. It did not prevent caries, and therefore secondary caries was common. It can readily be identified by its distinctive smell when it is cut in the mouth.

Questions to part 2 of the text:

1. What are the treatment options for anterior teeth problems?

2. Speak on advantages and drawbacks of using anterior composite materials.
3. What are the ways of retaining composite to the enamel today?
4. How do they compare with the traditional retention?
5. Why do dentists find it too confusing to apply dentine bonding agents and systems?
6. What is the preferred approach for large restorations today?
7. What are the indications for porcelain veneers? Why can't they replace crowns?
8. What are silicate cement and acrylic resin?
9. Why are they no longer in use?

GRAMMAR REVISION

I. TENSES

Exercise 1. Use Present Simple - Active or Passive.

1. A provisional denture (to use) for a short period of time for reasons of esthetics, function, or occlusal support.
2. Most patients (not to prepare) to function without teeth, even for a short time.
3. The mouth (to contain) a number of different tissues, some of which, such as mucous membrane, connective tissue, blood vessels, nerves, muscle, and bone, (to find) throughout the body.
4. Foods (to differ) in their ability to stimulate salivary flow which, in turn, can influence their intra-oral effect.
5. The properties of an organism responsible for its pathogenicity (to call) virulence factors.

Exercise 2. Use Past Simple - Active or Passive.

1. The remaining teeth (to extract) and the fixed partial dentures (to remove).
2. Protein and vitamin levels (to exceed) the minimal recommended level.
3. Calculus deposits carefully (to remove) from the selected teeth with a hand scaler.
4. The marginal fit of each crown (to examine) on the tooth.

5. A light-cured resin (to use) to fix each tooth.

Exercise 3. Use Future Simple - Active or Passive.

1. The odor of necrosis (to detect) usually even before the pulp chamber is opened because dentin becomes saturated with by-products of protein denaturation.

2. If caries is not managed preventively, the restorative treatment (to doom) to a cycle of disease, repair, new disease and further repair, and before too long, extraction.

3. Undermined enamel is brittle and in due course (to fracture) if subjected to occlusal forces, producing a large cavity.

4. The state of the tissue at any time (to depend) on the balance between the attacking forces and the defence reactions.

5. In many cases removing the adjacent tooth (to improve) access for cleaning, and even relatively large enamel lesions partially (to remineralize).

Exercise 4. Use Present Perfect - Active or Passive.

1. Numerous analyses of the microbial make-up of plaque in subjects of different caries experience (to reveal) a correlation between the presence of Streptococci mutans and caries.

2. When an adjacent tooth (to extract) for other reasons, direct access is possible.

3. From the middle of the 17th century, gutta percha (to recommend) for all sorts of uses.

4. It (to use) in dentistry for over 130 years, as a temporary restorative, an impression material, or as a root canal filling material.

Exercise 5. Use Present Simple to denote future action.

1. If I still (to have) bad toothache, I (to see) my dentist tomorrow.

2. You (to develop) caries if you (to keep) taking sweets in such amounts.

3. When local treatment (to be completed), he (to be advised) what to do in future.

4. Only when the remaining teeth (to be extracted), we (to insert) an interim denture.

5. You (to avoid) psychological trauma associated with the loss of natural teeth if you (to agree) to use an interim denture.

II. MODAL VERBS AND THEIR EQUIVALENTS

Translate the following sentences into Russian paying attention to modal verbs.

1. The interim denture has to be physiologic and well tolerated by the patient.
2. Diagnostic casts are used to permit a topographic survey of the dental arch that is to be restored by means of a removable partial denture.
3. The tip of the gutta-percha point should extend to about 1-2 mm coronal to the apex during a try-in, because it will be forced further apically during condensation.
4. Government financial policy may also have an impact on dental practice.
5. The report concluded that oral health services and education of the personnel will need to be radically transformed.
6. It has to be recognized that some individuals with a high susceptibility to disease may be incapable of maintaining a natural dentition during their lifetime.
7. Prevention can be provided in the form of fissure sealant and topical fluoride applications to reduce future caries in these identified high risk groups.
8. When plaque is allowed to accumulate freely there is an acute exudative inflammatory response within 2-4 days in the connective tissue underlying the coronal portion of junctional epithelium.

III. INFINITIVE AND INFINITIVE CONSTRUCTIONS

Underline the infinitives and indicate their functions. Translate the sentences into Russian.

1. To be useful in predictive case-finding, a test must detect the majority of high risk children and, at the same time identify those at low risk.
2. Clinically, the crevice depth is considered to be the distance to which a blunt probe will penetrate.
3. Rapidly progressing periodontitis is a term used to describe severe generalized periodontitis affecting young adults between 20 and 35 years of age.
4. Many different bacterial species are thought to be of aetiological significance in periodontitis.
5. The objective of oral hygiene education is to produce a change in behaviour which will result in a reduction of plaque accumulation sufficient, if possible, to prevent the initiation and progression of dental caries and periodontal disease, and to make the patient as independent as possible of professional support.

6. A large number of chemical agents have been tested for their ability to reduce plaque accumulation.
7. The UK data indicates not only that more elderly people are likely to have natural teeth in future, but also, that they are likely to have more of them than dentate people in previous generations.
8. If the operator is not confident that all the caries has been reached it is safer to remove the whole of the old restoration.
9. With increasing carious involvement of enamel and dentine, the area of chronic inflammation increases in size but it is believed to remain localized until pulp exposure.
10. Both white and brown spot lesions may have been present in the mouth for some years as it is not inevitable for a carious lesion to progress.

IV. PARTICIPLES AND PARTICIPLE CONSTRUCTIONS

Underline Participles and define their function. Translate the sentences into Russian.

1. The available material used today for root canal filling contains only about 20% gutta-percha, with the bulk being made up of compounds such as ZnO, silicates, etc.
2. In a slowly progressing carious lesion, toxins reaching the pulp may provoke chronic inflammation.
3. In chronic inflammation the cellular components predominate and there may be increased collagen production, leading to fibrosis but without immediately endangering the vitality of the tooth.
4. Such use of diagnostic casts permits a justification of the proposed fee through the patient's understanding of the problems involved and of the treatment needed.
5. The most common complication associated with a tooth being extracted is fracture of its roots.
6. The use of an interim denture may serve as a learning period for the patient.
7. Having decided on the abutments, the dentist is responsible for the preparation of the abutment teeth, for the design of cast restorations, and for the form of the occlusal rest seats.
8. Almost half the cost is concerned with restoring teeth attacked by dental caries.

9. Refined, finely ground and heat-treated starch can cause caries but the addition of sugar increases the cariogenicity of cooked starchy foods.
10. The tooth-attached plaque consists mainly of Gram-positive rods and cocci, while the unattached plaque consists predominantly of Gram-negative organisms including motile forms.

V. REPORTED SPEECH

Make the statements indirect paying attention to the use of tenses.

1. «About 2000 new cases of oral cancer occur in Britain each year,» said the reporter.
2. He said, «Much is already known about the prevention of dental caries and periodontal disease.*»
3. The reporter said, «The possible influence of the hardness and calcium content of water on prevalence of dental caries has been suggested by many authors but investigated by only a few.*»
4. «The main purpose of the study was to investigate how caries activity is influenced,» began the researcher.
5. «It has been suggested that all carbohydrate foods should be considered cariogenic,» said the scientist.
6. He concluded his speech with the words, «Less technical/manual skills will be needed, due in part to new technology, and more special skills in diagnosis, pathophysiology, disease risk assessment and management, and communication will be required.»
7. «Don't wait until caries develops,» the dentist said.
8. «Use small amounts of retraction force on the flap,» instructed the surgeon.

Turn direct questions into reported ones beginning with «Will you tell me».

1. How should this information be used clinically?
2. How many years have you been investigating this phenomenon?
3. In what countries is fluoridated salt used?
4. Is arrested caries in distinct contrast to rampant caries?
5. When are fissure sealants applied?
6. What is the most common soft tissue injury?

7. May bacteria enter the pulp after exposure?

8. Why should caries develop in this way?

VI. WORD FORMATION

Exercise 1. The following prefixes are used to make words negative or with opposite meaning. Read and translate them into Russian.

a-, ab- normal abnormal

dis- appear disappear

il- legal illegal

im- possible impossible

in- visible invisible

ir- regular irregular

non- existent non-existent

mal- nutrition malnutrition

mis- understand misunderstand

un- known unknown

Exercise 2. Complete these columns by forming the negatives of each of the words listed below.

agree, accurate, able, certain, connect, employed, experienced, formal, like, likely, fortunately, honest, known, profit-making, readable, satisfied, stop, used, valid, natural, dependent, patient (adj.), important, order, cover

un- dis- im- in- non-Exercise 3. Form words of the opposite meaning to those in column A, using one of the negative prefixes, and fill in the blanks in the sentences. Translate the sentences into Russian.

A B

1) appear The pain_two days later.

2) visible X-ray examination helps the doctor to reveal inner disorders _to the eye.

3) valid They could not sell him the medicine at the pharmacy as his prescription was_.

4) connected Something is wrong with the lamp. It doesn't work.

Oh, it's simply_.

5) likely Complications are very_in this case.

6) fortunately _the dentist could not see me, as I was half an hour late.

7) usual Supernumerary teeth in the deciduous dentition are very_.

8) agree His opinion was absolutely different, so he said that he_ with the speaker.

9) order The dentist explained that such _could be hereditary or developmental.

10) smoker When we travel, we always choose the places for_.

АНГЛИЙСКИЙ АЛФАВИТ

Печатные буквы	Прописные буквы	Название букв	Произношение
A a	<i>A a</i>	eɪ	[eɪ], [æ], [a:] перед г ; [ɛə] перед г + гласная
B b	<i>B b</i>	bi:	[b]
C c	<i>C c</i>	si:	[s] перед е, i, y ; [k] перед остальными буквами и в конце слов
D d	<i>D d</i>	di:	[d] (альвеолярный звук)
E e	<i>E e</i>	i:	[i:], [e]; [ə:] перед г ; [iə] перед г + гласная
F f	<i>F f</i>	ef	[f]
G g	<i>G g</i>	dʒi:	[dʒ] перед е, i, y (есть исключения), [g] перед а, о, и , согласными, в конце слов
H h	<i>H h</i>	eɪtʃ	[h]
I i	<i>I i</i>	ai	[ai], [ɪ]; [ə:] перед г , [aɪə] перед г + гласная
J j	<i>J j</i>	dʒeɪ	[dʒ]
K k	<i>K k</i>	keɪ	[k]
L l	<i>L l</i>	el	[l] (альвеолярный)
M m	<i>M m</i>	em	[m]
N n	<i>N n</i>	en	[n]
O o	<i>O o</i>	əu	[əʊ]; [ɒ]; [ɔ:] перед г ; перед г + гласная
P p	<i>P p</i>	pi:	[p]
Q q	<i>Q q</i>	kju:	[kw], редко [k] (пишется в сочетании с «и»)
R r	<i>R r</i>	a:	[r] перед гласными; перед согласными и в конце слов не произносится
S s	<i>S s</i>	es	[s], [z]
T t	<i>T t</i>	ti:	[t]
U u	<i>U u</i>	ju:	[ju:], [ʌ], [ɔ:] перед г , [juə] перед г + гласная
V v	<i>V v</i>	vi:	[v]
W w	<i>W w</i>	dʌblju:	[w]
X x	<i>X x</i>	eks	[ks], [gz] в положении между гласными
Y y	<i>Y y</i>	wai	[ai], [ɪ], [ə:] перед г , [aɪə] перед г + гласная , [j] в начале слов
Z z	<i>Z z</i>	zed	[z]

ГРАММАТИЧЕСКИЙ СПРАВОЧНИК

I. ПРАВИЛА ЧТЕНИЯ

Буквы и звуки

Система звуков английского языка отличается от русского тем, что:

1) долготы и краткость гласных влияют на значение слова (напр., английские пары слов cut-cart, rot-port, pick-peak, отличающиеся в произношении лишь долготой звучания гласных, означают совершенно разные по смыслу русские слова: *резать-тележка, чайникпорт, собирать-вершина*);

2) звонкие согласные в конце слов не оглушаются, как в русском языке, по той же причине (напр., bad-bat, dog-dock, что соответствует русским *плохой-летучая мышь и собака-верфь*);

3) одна и та же буква далеко не всегда соответствует одному и тому же звуку: 26 буквам английского алфавита соответствуют 46 (!) звуков. Одна и та же буква может звучать по-разному в зависимости от соседних букв и типа слога, в то время как буква *e* в конце слов (непроизносимое, «немое» *e*), хотя графически и образует слог, не читается вообще. Так, первая буква английского алфавита *a* имеет не только четыре основных варианта произношения согласно типу слога (*sake, can, car, care*), но и еще целый ряд вариантов в зависимости от того, какая буква или сочетание букв следует за ней (напр., *quantity, can't*, и т.п.)

4) Буква *-г* перед согласными не произносится: *form, sport*

[fɔ:m, spɔ:t].

Необходимо отметить и то, что в произношении как гласных, так и согласных в английском языке имеются многочисленные исключения, поэтому словари, как правило, снабжены *транскрипцией*, т.е. системой специальных символов, передающих совершенно определенно звучание слов вне зависимости от их буквенного выражения. Это в значительной степени облегчает изучение английского языка как иностранного.

Слогоделение

Слогоделение в английских словах начинается с последней гласной (согласная во внимание не принимается): *la-te, la-ter*. Последняя гласная вместе с предшествующей согласной образует слог. Если буква *e* стоит в

конце слова, и помимо нее в слове есть другие гласные, то она образует графически открытый слог. В графически открытом слоге буква *e* не читается. Таким образом, в словах *late*, *later* по два слога.

Примечание.

Буква */* образует отдельный слог с предшествующей согласной, поэтому в слове *table* слоговая граница проходит перед *b*: *ta-ble*.

При удвоении согласных слоговая граница проходит между ними: *cutter*, *ur-
-per*.

Правила чтения гласных

Правила чтения гласных (см. Таблицу ниже) касаются только ударных слогов, которые делятся на четыре типа:

I - открытый (оканчивается на гласную) - произношение

алфавитное: *canine*, *me*, *nine*, *my*, *code*, *mute*;

II - закрытый (оканчивается на согласную) - произношение

краткое, иногда полностью несоответствующее алфавитному: *can*, *men*, *pin*, *cyst*, *cod*, *gum*;

III - оканчивающийся на (-*z*) - произношение долгое, частич-

но или полностью изменяющееся в качестве звучания по сравнению с алфавитным: *for*, *her*, *fir*, *myrth*, *world*, *purple*;

IV - оканчивающийся на (*z* + гласная) - произношение алфавит-

ное с добавлением нейтрального звука [э], который соответствует по звучанию безударной русской: *care*, *here*, *fire*, *lyre*, *pure*.

Гласная \ Тип слога	I	II	III	IV
	Открытый	Закрытый	Гласная + r	Гласная + (r + гласная)
a [eɪ]	cane [eɪ]	can [æ]	car [ɑ:]	care [eə]
e [i:]	Pete [i:]	set [e]	her [ɜ:]	here [jə]
i, y [aɪ, waɪ]	time [aɪ]	rib [ɪ]	sir [ɜ:]	fire [aɪə]
	my [aɪ]	system [ɪ]	myrtle [ɜ:]	lyre [aɪə]
o [ou]	cone [ou]	socket [ɔ]	for [ɔ:]	sore [sɔ:]
u [ju:]	tube [ju:]	current [ʌ]	further [ɜ:]	pure [jʊə]

Ударение - это выделение слога или слова в речевом потоке. Знак (') ставится перед ударным слогом. Ударение в малосложных словах падает, как правило, на первый слог, в многосложных - на третий от конца. Многосложные слова

могут иметь по два ударения, главное и второстепенное. Второстепенное ударение обычно падает на первый или второй слог, главное фиксированного места не имеет: *transplan'tation, res'ponsi'bility*.

В английском предложении под ударением стоят обычно значимые слова: существительные, прилагательные, смысловые глаголы, числительные, наречия, вопросительные и указательные местоимения.

Безударными обычно бывают служебные слова: артикли, предлоги, союзы, вспомогательные глаголы, личные и притяжательные местоимения.

Как и в русском языке, гласные в безударных слогах произносятся ослабленно, нечетко и поэтому, независимо от их буквенного выражения, чаще всего звучат как [э], так называемый *нейтральный звук*, напоминающий по произношению безударную русскую «а»: комната, нота) или [i]: *entrance*, [ˈentrans], *pencil* [ˈpensil]. Часто безударные гласные не произносятся вообще, напр.: *open* [ouɹn], *lesson* [lesn].

Ударение бывает словесным и фразовым. *Словесное* ударение выделяет какой-либо слог в слове, *фразовое* - слово в предложении. Предложения обычно делятся на смысловые группы (синтагмы), слова в которых нельзя отделить, не нарушая смысла. В процессе говорения синтагмы отделяются друг от друга паузами (|).

Ударные слоги выделены жирным шрифтом:



To become a dentist] one will have to pass **entrance** examinations! and study for **five** years||.

Ритм и интонация

Каждому языку свойственна характерная для него интонация. Ритму английской речи свойственно стремление произносить ударные слоги через более или менее одинаковые промежутки времени, вне зависимости от количества находящихся между ними безударных слогов.

Интонация английского предложения влияет на смысл высказывания, т.е. указывает на законченность или незаконченность мысли,

придает ей эмоциональную окраску, может выполнять синтаксическую функцию, т.е. придавать высказыванию форму вопроса или утверждения.

1. Для английской интонации характерны два основных тона - *восходящий*  и *нисходящий* , каждый из которых употребляется в совершенно определенных видах предложений. Первый - в общих вопросах (вопрос ко всему предложению), требующих утвердительного или отрицательного ответа:

Is he a ↗ student? Did he ↗ work? Will they ↗ do it?

Второй - в специальных вопросах (начинаются с вопросительного слова и относятся к одному из членов предложения) и утвердительных предложениях:

What ↘ student is he? Where did he ↘ work? Today is ↘ Sunday.

2. Первый ударный слог является самым высоким по тону, а каждый последующий произносится с постепенным понижением голоса. Последний ударный слог произносится либо с восходящим тоном, либо с нисходящим в зависимости от типа предложения (утверждение, общий/специальный вопрос).

3. В вопросительных предложениях, в которых хотят выяснить, какое из двух предположений является правильным (альтернативный вопрос), в первой части предложения употребляется интонация восходящая, а во второй - нисходящая:

Is she a ↗ doctor or a ↘ teacher?

II. МОРФОЛОГИЯ

Новые слова в английском языке образуются с помощью:

- 1) словосложения, например, toothache - *зубная боль*. (Ударение в сложных словах ставится на первом элементе);
- 2) аффиксации, т.е. использования суффиксов и приставок, например, суффиксы *er/-or* образуют существительные, обозначающие действующее лицо или профессию: teacher, speaker. Приставка *re-* обозначает повторяемое действия: rewrite, redo. Ударение на суффиксы и приставки обычно не ставится;
- 3) конверсии. Конверсия - это совпадение форм слов, относящихся к разным частям речи и потому выполняющих разные функции в

предложении: to work - *работать* - work - *работа*; to help *помогать* - help - *помощь*.

4) существительное, стоящее перед другим существительным, выполняет роль определения и переводится на русский язык прилагательным или существительным в родительном падеже: the institute library - *институтская библиотека (библиотека института)*.

Основные суффиксы

Существительных: -age, -ance/ence, -ancy/ency, -er/or, -ian, -ing, -ion, -(i)ty, -ist, -ment, -ness, -th, -ure, -y: *dosage, independence, emergency, doctor, direction, union, integrity, dentist, establishment, illness, cloth, structure, mobility*.

Глаголов: -ate, -ize/ise, -y, -en, -fy: *indicate, hospitalize, imply, lengthen, intensify*.

Прилагательных: -able/ible, -al, -ant/ent, -ar, -ary/ory/ery, -ful, -ian, -ic(al), -ish, -ive, -less, -ous, -y: *capable, dental, important, solar, coronary, helpful, Russian, stomatologic(al), yellowish, intensive, colourless, edentulous, lucky*.

Числительных: -th, -teen, -ty: *fifth, nineteen, eighty*. Наречий: -ly: *completely, interestingly, fully*.

III. ГРАММАТИКА

Артикль (The Article)

1. Артикль является основным определителем существительного. В английском языке два артикля - неопределенный, *a (an)*, и определенный - *the*.

Неопределенный артикль произошел от числительного *один (one)*, поэтому он употребляется с исчисляемыми существительными в *единственном* числе, когда нужно показать к какой категории предметов или явлений данное существительное относится: *a book* (одна из многих подобных ей, а не ручка, не стол и т.п.).

Определенный артикль употребляется с существительными как единственного, так и множественного числа для выделения предмета или явления из группы таких же предметов или явлений, например: *the book* (именно та, о которой говорит или подразумевает говорящий и знает собеседник).

2. На артикли обычно не ставится ударение и поэтому они читаются как единое целое с определяемыми ими словами.

3. Артикли не употребляются:

- перед именами собственными: *Mary, John Brown, Russia, Australia*;

- перед нарицательными существительными, определяемыми *притяжательными* или *указательными местоимениями*, названиями наук, болезней и когда перед именами собственными стоит существительное, обозначающее звание: *my doctor, this hospital, Dentistry, caries, Professor Smirnov*.

Имя существительное (The Noun)

Множественное число

Множественное число имен существительных образуется следующим образом:

1. Путем прибавления окончания -s к основе, которое после звонких согласных произносится [z]: *a canine - canines*, а после глухих - [s]: *a book-books*.

2. Если основа оканчивается на звук подобный [s] или [z] (-ss, -sh, -ch, -x), то множественное число образуется добавлением окончания -es, которое произносится с добавлением гласного призвука, а именно: [iz]): *a glass-glasses, a watch-watches, a dish-dishes, a fox-foxes*.

3. Если имя существительное оканчивается на -y, которая стоит после согласной, то у меняется на i, и уже к ней прибавляется окончание -es (произносится [iz]): *a cavity-cavities*.

4. Если существительное оканчивается на -fe, то f меняется на v, к которой прибавляется окончание -es: *life-lives*.

Примечание.

Исключение из этого правила составляют

а) слова латинского и греческого происхождения, образующие форму множественного числа согласно правилам этих языков: *an alveolus-alveoli, a phenomenon-phenomena*;

б) слова, образующие множественное число путем изменения корневой гласной: *a man-men, a woman-women, a foot-feet, a tooth-teeth*.

Способы передачи русских падежных отношений в английском языке

Русские падежи

Способы передачи падежных отношений в англ. яз.

Примеры

Перевод на русский язык

Именительный

Без предлога

The book is good

Книга хорошая

Родительный

of, 's

The book of my brother is on the table. My brother's
book is on the table

Книга моего брата на столе

Дательный

to

или

без предлога

I write many letters

to my mother.

I write my mother many

letters

Я пишу много писем матери

Винительный

Без предлога

I write a letter

Я пишу письмо

Творительный

by, with

The letter was written by his sister.

The letter was written with a ball-pen

Письмо было
написано
его сестрой.

Письмо было
написано
шариковой
ручкой

Предложный

about, at, on, under и др.

This book is about children.

He is at the Institute. The book is on the table

Эта книга о детях.

Он в институте.

Книга на столе

Имя прилагательное (The Adjective)

Английские прилагательные не изменяются по родам, числам и падежам. В предложении они выступают в функции определения или именной части составного сказуемого.

Степени сравнения прилагательных

Degrees of Comparison of Adjectives (Positive, Comparative, Superlative).

Малосложные прилагательные

Положительная степень

Сравнительная степень

Превосходная степень

small - маленький

smaller - меньше

(the) smallest - наименьший

large - большой

larger - больше

(the) largest - наибольший

red - красный

redder - краснее

(the) reddest - самый красный

early - ранний

earlier - более ранний

(the) earliest - самый ранний

narrow - узкий

narrower более узкий

(the) narrowest - самый узкий

far - далекий

farther - дальше (о расстоянии) further - далее (о времени)

(the) farthest самый далекий (по расстоянию)

(the) furthest - самый отдаленный (по времени)

Примечание.

1. Для сохранения краткого чтения гласной конечная согласная в односложных прилагательных удваивается (см. таблицу выше).

2. Если прилагательное оканчивается на -у и ей предшествует согласная, то перед -er, -est -уменьшается на -i (см. таблицу выше).

Некоторые прилагательные и наречия образуют степени сравнения от других корней:

Положительная степень

Сравнительная степень

Превосходная степень

good - хороший well - хорошо

better - лучше

(the) best - лучший

bad - плохой badly - плохо

worse - хуже

(the) worst - наихудший

many - многие much - много

more - больше

(the) most - наибольший

little - маленький, мало

less - меньше

(the) least - наименьший

Многосложные прилагательные

Положительная степень

Сравнительная степень

Превосходная степень

Dangerous - опасный

More dangerous - более опасный

(the) most dangerous - наиболее опасный, самый опасный

Interesting - интересный

More interesting - более интересный

(the) most interesting - наиболее интересный, самый интересный

При сравнении двух предметов *одинаковых* по качеству или количеству прилагательное в положительной степени ставится между словами as ... as. При сравнении предметов *неодинаковых* по качеству или количеству употребляются слова not so ... as.

He studies as many theoretical subjects as we do. He studies not so many theoretical subjects as you do.

При сравнении двух предметов употребляется союз than (русск. *чем*) He is a better student than you are.

Имя числительное (The Numeral)

Количественные (Cardinal) числительные

1-12

13-19

20-90

100-100,000

1 one

-

20

twenty

100

a (one) hundred

2 two

-

21

twenty-one

101

a (one) hundred and one

3 three

13

thirteen

22

twenty-two

121

a (one) hundred

4 four

14

fourteen

30

thirty

and twenty-one

5 five

15

fifteen

40

forty

200

two hundred

6 six

16

sixteen

50

fifty

300

three hundred

7 seven

17

seventeen

60

sixty

400

four hundred

8 eight

18

eighteen

70

seventy

500

five hundred

9 nine

19

nineteen

80

eighty

600

six hundred

10 ten

90

ninety

700

seven hundred

11 eleven

800

eight hundred

12 twelve

900

nine hundred

1,000

a (one) thousand

1. Между десятками и сотнями в английском языке ставится союз *and* (см. Таблицу выше).
2. У слов *hundred, thousand, million* множественное число образуется без добавления окончания *-s*, если им предшествует числительное: *five hundred, six million, nine thousand*. Если же они сами употребляются во множественном числе, то образуют его согласно общему правилу: *hundreds of students, thousands of workers, millions of people*.

Порядковые {Ordinal} числительные

1-12-й

13-19-й

20-90-й

100-й и далее

1st first

-

20th twentieth

100th hundredth

2nd second

21st twenty-first

101st one

3rd third

13th thirteenth

30th thirtieth

hundred

4th fourth

14th fourteenth

40th fortieth

and first

5th fifth

15th fifteenth

50th fiftieth

6th sixth

16th sixteenth

60th sixtieth

7th seventh

17th seventeenth

70th seventieth

8th eighth

18th eighteenth

80th eightieth

9th ninth

19th nineteenth

90th ninetieth

Дробные числительные (Fractions') Простые дроби (Common Fractions)!
Десятичные дроби (Decimal Fractions) I

$1/2$ a half (a/one second)

0.1 nought point one (point one)

$1/3$ a (one) third

0.01 nought point nought one

$2/3$ two thirds

(point nought one)

$3/5$ three fifths

8.27 eight point two seven

$1/7$ one seventh

72.903 seven two (seventy-two) point

$2/7$ two sevenths

nine nought three

$3 1/2$ three and a half

6 1/3 six and one third

Местоимение (The Pronoun)

Личные (Personal) и притяжательные (Possessive) местоимения

Личные местоимения *I, he, she, it, we, you, they* в общем (*именительном*) падеже (*Nominative case*) отвечают на вопросы *кто?, что?*, т.е. являются в предложении *подлежащим*. *Личные* местоимения в *объектном* (косвенном) падеже (*Objective Case*) (*me, him, her, it, us, you, them*) отвечают на вопросы косвенных падежей, стоят после сказуемого и являются в предложении *дополнением*.

Притяжательные местоимения *my, his, her, its, our, your, their* отвечают на вопросы *чей? чья? чье? чьи?* Они определяют, как правило, имя существительное и являются в предложении *определением*.

Личные местоимения

Притяжательные местоимения

Именительный падеж

Косвенный (объектный) падеж

кто? (who?) *что?* (what?)

кого, кому, кем? (whom?) *что, чему, чем?* (what?)

чей, чья, чье, чьи? (whose?)

I -я

he - он

she - она

it - он, она, оно

(неодушевленные)

we - мы

you - вы

they - они

me - меня, мне him - его, ему her - ее, ей it - его, ее us - нас, нам you - вас, вам them - их, им

my - мой his - его her - ее its - его, ее our - наш, наша, наше, наши

your - ваш, ваша, ваше,

ваши their - их

Примечание.

Притяжательные местоимения могут переводиться на русский язык местоимениями *свой, своя, свое, свои.*

I can give you my book. Я могу дать вам свою (мою) книгу.

Указательные (*Demonstrative*) местоимения

Указательные местоимения *this/these, that/those* отвечают на вопрос *какой?* и выступают в качестве определения к существительному.

Единственное число

Множественное число

this (это, этот, эта) *that* (то, тот, та)

these (эти) *those* (те)

Возвратные (*Reflexive*) местоимения

Единственное число		Множественное число	
<i>myself</i> <i>yourself</i> <i>herself</i> <i>himself</i> <i>itself</i>	сам, себя	<i>ourselves</i> <i>yourselves</i> <i>themselves</i>	сами, себя

Местоимения *one/ones, that of/those of* как заменители имен существительных

Местоимения *one/ones* и *that of/those of* употребляются для замены имен существительных, чтобы избежать тавтологии (повторения) в, соответственно, единственном или множественном числе.

Перед местоимением *one (ones)* в функции заменителя существительного может стоять артикль *the* (этим оно отличается от неопределенного местоимения *one*): *This case report is not interesting for the students. Give me the one (the case report) of patient Ivanov.*

Местоимения

Примеры

Перевод

one

A group of cells forms tissue, like muscle tissue or dental one

Группы клеток формируют ткани, например, мышечную или зубную (ткань)

ones

Some muscles are more elastic than the other ones

Некоторые мышцы эластичнее других (мышц)

that of

I shall examine your patient and that of my colleague, Dr. Ivanov

Я осмотрю вашего больного и больного моего коллеги, доктора Иванова

those of

The bones of the skull are smaller than those of the other parts of the skeleton

Кости конечностей крупнее черепных (костей)

Неопределенные (Indefinite) местоимения some, any, no

1) *some* (*несколько, некоторое количество*) употребляется в утвердительных предложениях:

I have *some* books. У меня есть несколько книг.

2) *any* употребляется в том же значении, что и *some*, но только в вопросительных и отрицательных предложениях:

Do you have *any* books? У вас есть (какие-нибудь) книги? I don't have *any* books. У меня нет(никаких) книг.

Примечание.

Если местоимение *any* употребляется в утвердительном предложении, оно переводится как *любой (-ая, -ое, -ые)*:

You may have *any* book. Вы можете взять любую книгу.

3) *no* (*никакой*) употребляется для образования отрицания, но глагол в этом случае всегда стоит в утвердительной форме:

I have *no* books. У меня нет (никаких) книг.

Местоимения some, any, no, every и их производные

В утвердительных предложениях

В вопросительных предложениях

В отрицательных предложениях

В предложениях всех типов

Some

Any

Any

Not... any

No

Every

О вещах

thing

Something

Что-то Что-нибудь

Anything

Все, что угодно

Anything

Что-то Что-нибудь

Not... anything

Ничего

Nothing

Ничего

Everything

Все

О людях

body one

Somebody Someone

Кто-то Кто-нибудь

Anybody Anyone

Всякий Любой

Anybody Anyone

Кто-нибудь Кто-либо

Not... anybody Not... anyone

Никто

Nobody no one none

Никто

Everybody Everyone

Всякий

Каждый

Все

О месте

where

Somewhere

Где-то Куда-то

Anywhere

Где

угодно

Куда

угодно

Anywhere

Где-нибудь Куда-нибудь

Not anywhere

Нигде Никуда

Nowhere

Нигде Никуда

Everywhere

Везде Всюду

Глагол (The Verb)

(общие сведения)

Основные формы английского глагола

В английском языке существует четыре формы глагола:

1. *Основная* (base form) - форма инфинитива без частицы *to*, с помощью которой (путем добавления окончаний, вспомогательных или модальных глаголов) образуются все личные формы английского глагола; 2. *Вторая* - простое прошедшее время (Past Simple);
3. *Третья* - причастие прошедшего времени (Past Participle/ Participle II). Эта форма у правильных глаголов по формальному признаку (окончание *-ed*) совпадает с Past Simple. Единственное отличие - это функция: в предложении Past Simple всегда *сказуемое*, Past Participle - *определение*.
4. *Четвертая* - причастие настоящего времени (Present Participle/ Participle I).

Именно в таком порядке эти формы представлены в списках неправильных глаголов в словарях.

Личные и неличные формы глагола

Глаголы имеют личные и неличные формы. *Личные* формы выполняют в предложении функцию *сказуемого*. Они имеют категории лица, числа, времени, залога и делятся на смысловые, вспомогательные, глаголы-связки и модальные глаголы.

Неличных форм в английском языке три: *инфинитив, причастие и герундий*. Они не могут выполнять функцию *сказуемого*, но функции их в предложении чрезвычайно многообразны. Неличные формы не выражают лица и числа и не имеют обычных глагольных форм времени.

Правильные и неправильные глаголы

В английском языке все глаголы делятся на *правильные* и *неправильные* в зависимости от способа образования форм прошедшего простого времени (Past Simple) и причастия прошедшего времени (Participle II).

Правильными называются глаголы, у которых обе эти формы образуются путем добавления суффикса -ed к основной форме. Неправильными - глаголы, образующие эти формы иным способом: изменением корневой гласной, изменением конечных согласных и рядом других способов.

Смысловые глаголы, глаголы-связки и вспомогательные глаголы

Смысловым называется глагол, который имеет полное лексическое значение. В предложении он выступает в функции сказуемого.

Глагол-связка самостоятельного значения не имеет, а служит для связи подлежащего с именной частью. Функцию глагола-связки выполняет главным образом глагол to be - *быть*, а также глаголы: to become, to do, to turn, to grow в значении *стать, становиться, сделаться* и ряд других.

Вспомогательный глагол - это спрягаемая форма глагола, которая служит для образования сложных форм. Он показывает лицо, число, время, но сам смыслового значения не имеет, а служит для образования сложных форм глагола.

Основными вспомогательными глаголами являются глаголы to be, to have, to do, will, should, would. Первые три могут выступать и как самостоятельные смысловые глаголы.

Модальные глаголы

Модальными называются глаголы, которые выражают *не действие, а отношение* к нему. Самостоятельно они не употребляются, но в сочетании с инфинитивом выражают возможность действия, его необходимость, вероятность, желательность и т.п. К модальным глаголам относятся can, may, must, ought, need.

В модальном значении могут употребляться также глаголы shall, should, will, would, а также сочетания с инфинитивом глаголов to have и to be.

Залог

В английском языке имеется два залога: действительный и страдательный.

Действительный залог показывает, что лицо (или предмет), выраженное подлежащим, само совершает действие.

The patient asked the doctor about his disease. Больной спросил врача о своей болезни.

Страдательный залог показывает, что лицо (или предмет), выраженное подлежащим, подвергается действию, выраженному сказуемым предложения.

The patient was asked about his disease.

Больного спросили о его болезни.

Времена глагола

Система спряжения английского глагола по временам сильно отличается от системы спряжения русского глагола, а именно: каждое из времен - настоящее, прошедшее, будущее, в свою очередь, делится еще на 4 подгруппы:

- 1) Simple (Indefinite) - группа простых (неопределенных) времен;
- 2) Continuous - группа продолженных времен;
- 3) Perfect - завершенных и
- 4) Perfect Continuous - так называемых завершено-продолженных времен.

Глагол *to be*

Глагол *to be* может выступать в роли как смыслового, так и вспомогательного глагола для образования сложных глагольных форм.

Основной его особенностью является то, что для образования вопросительной и отрицательной форм ему не нужен вспомогательный глагол.

Форма	Present	Past	Future
Утвердительная	I am he } she } is it }	I } he } was she } it }	I } he } will be she } it }
	we } you } are they }	we } you } were they }	we } you } they }
Отрицательная	I am not he } she } is not it }	I } he } was not she } it }	I } he } will not be she } it }
	we } you } are not they }	we } you } were not they }	We } you } they }

Форма	Present	Past	Future
Вопросительная	Am I? Is { he? { she? { it?	Was { I? { he? { she? { it?	Will { I { he { she { it { you { we { they } be?
	Are { we? { you? { they?	Were { we? { you? { they?	

Примечание.

Для образования кратких ответов повторяется тот же вспомогательный глагол, который есть в вопросе:

Are they dentists? - Yes, they are. / No, they aren't (are not).

Is he a dentist? - Yes, he is. / No, he isn't (is not).

Were they students? - Yes, they were. / No, they weren't (were not).

Will he be a doctor? - Yes, he will. / No, he won't (will not).

Случаи употребления глагола to be

Употребление глагола <i>to be</i>	Значение	Примеры
1) to be + сущ. с предлогом	Смысловый глагол (быть, находиться)	The surgeon is in the clinic
2) to be + сущ. без предлога	Глагол- связка (быть, являться)	My friend is a surgeon
3) to be + IV форма смыслового гла- гола	Вспомогательный (для образования времен группы Continuous)	The surgeon is performing an operation
4) to be + III форма глагола	Вспомогательный (для образования страда- тельного залога Passive Voice)	The patient is operated on
5) to be + инфинитив	Модальный (для выражения заранее намеченного действия или долженствования)	The surgeon is to operate on this patient

Глагол *to do*

1. *To do* употребляется в качестве вспомогательного глагола для образования вопросительной и отрицательной форм времен Present и Past Simple и для образования отрицательной формы повелительного наклонения.

Do the doctors *examine* the patients Врачи осматривают
every day? больных каждый день?

Petrov did *not come* yesterday. Петров не *приходил* вчера.

Don't *smoke* so much! Не надо курить так много!

2. Как смысловой, глагол *to do* спрягается по аналогии со всеми английскими глаголами и имеет очень много значений.

Спряжение глагола to do (Simple Tense)

Утвердительная форма

Отрицательная форма

Вопросительная форма

Present

I (you, we, they) do

I (you, we, they) do not do

Do

(I, you, we, they) do?

He (she, it) does

He (she, it) does not do

Does he (she, it) do?

3. To do употребляется в утвердительных предложениях для усиления значения смыслового глагола в Present и Past Simple, для чего он ставится перед сказуемым в соответствующей личной форме, в то время как основной глагол употребляется в основной форме (инфинитив без частички to).

There are indications that they do *know* what they are talking about.

Есть основания полагать, что они действительно *знают* о чем говорят.

Глагол *to have*

Спряжение глагола to have (Simple Tenses)

Утвердительная форма

Отрицательная форма

Вопросительная форма

Present

I (you, we, they) have

He (she, it) has

I (you, we, they) do not have

He (she, it) does not have

Do I (you, we, they) have?

Does he (she, it) have?

Утвердительная форма

Отрицательная форма

Вопросительная форма

Past

I (he, she, it, we, you, they) had

I (he, she, it, we, you, they) did not have

Did I (he, she, it, we,
you, they)
have?

Действительный залог

Времена группы *Simple Active*

Времена этой группы выражают действие как факт, который обычно или регулярно имеет место в настоящем, прошедшем или будущем, и поэтому часто употребляются с наречиями *often часто, usually обычно, always всегда*.

Спряжение глаголов в Simple Tenses Active инфинитив to examine

Present Indefinite

Past Indefinite

Future Indefinite

Утвердительная форма

I (we, you, they) examine

He (she, it) examines

I (he, she, it, you, we, they) examined

I (he, she, it, you, we, they) will examine

Вопросительная форма

Do

I (we, you, they) examine? Does he (she, it) examine?

Did

I (he, she, it, we, you, they) examine?

Will

I (he, she, it; we, you, they) examine?

Отрицательная форма

I (we, you, they) do not examine

He (she, it) does not examine

I (he, she, it, we, you, they) did not examine

I (he, she, it, we, you, they) will not examine

Времена группы *Continuous Active*

Времена группы Continuous выражают действие как процесс, который продолжается в определенный момент или период времени в настоящем, прошедшем или будущем.

Образование Continuous

to be + Present Participle

изменяется по лицам, не изменяется числам и временам

Спряжение глаголов в Continuous Tenses Active инфинитив to be examining

Present Continuous

Past Continuous Future Continuous

Утверди-

I am examining

I (he, she, it) I (he, she, it, we,

тельная

was examining you, they) will be

форма

He (she, it)

examining

is examining

We (you, they) were

examining

We (you, they)

are examining

Вопроси-

Am I

Was Will

тельная

examining?

I (he, she, it) I (he, she, it,

форма

examining? we, you, they)

Is he (she, it)

be examining?

examining?

Were

you (we, they)

Are you (we, they)

examining?

examining?

Отрица-

I am not examining

I (he, she, it) I (he, she, it,

ТЕЛЬНАЯ

was not examining we, you, they)

форма

He (she, it)

will not be

is not

examining

В кратком ответе употребляется только вспомогательный глагол в соответствующем времени, лице и числе.

Yes, he is. / No he is not (isn't).

Yes, we were. / No we were not (weren't).

Yes they will. / No they will not (won't).

Времена группы *Perfect Active*

Времена группы Perfect употребляются для выражения действия, которое уже свершилось(результат) к определенному моменту в настоящем, прошедшем или будущем времени, и часто употребляется с соответствующими наречиями: *just только что, ever когда-либо, already уже, not yet еще не, recently недавно, never никогда, lately в последнее время, недавно*, которые ставятся после первого вспомогательного глагола.

Примечание.

Present Perfect никогда не переводится на русский язык настоящим временем, поскольку передает действие, которое было совершено в прошлом, но имеет связь с настоящим (как результат этого прошлого действия). В противном случае вместо Present Perfect должно быть использовано Past Simple, выражающее действие как факт, не имеющий связи с настоящим:

I have left my umbrella behind.

Я не захватила зонт (*результат*: зонта нет - придется идти под дождем).

Yesterday I left my umbrella behind and got wet through.

Вчера я забыла взять зонт и промокла до нитки (*факт*, имевший место вчера).

Образование Perfect Active

to have

+

Present Participle

изменяется по лицам,
числам и временам

не изменяется

Спряжение глаголов в Perfect Active инфинитив to have examined

Утвердительная форма

Present Perfect

I (you, we, they) have examined He (she, it) has examined

Past Perfect

I (he, she, it; you, we, they) had examined

Future Perfect

I (he, she, it; you, we, they) will have examined

Вопросительная форма

Have I (we, you, they) examined?

Has he (she, it) examined?

Had I (he, she, it; you, we, they) examined?

I (he, she, it; you, we, they) had not examined

Отрицательная форма

I (we, you, they) have not examined He (she, it) has not examined

I (he, she, it; you, we, they) had not examined

I (he, she, it; you, we, they) will not have examined

Времена группы *Perfect Continuous Active*

Глагол в *Perfect Continuous* выражает действие, которое началось до момента речи в прошедшем, настоящем или будущем, продолжается в момент говорения и часто неизвестно, в течение какого периода времени это действие еще будет продолжаться и когда закончится.

Времена группы *Perfect Continuous* переводятся на русский язык настоящим, прошедшим или будущим временем, часто с наречием *уже*

Образование Perfect Continuous to have been + Present Participle

Вспомогательный глагол *to have* изменяется по лицам, числам и временам.

Основной (смысловой) глагол не изменяется.

Спряжение глаголов в Perfect Continuous инфинитив to have been examining

Present Perfect Continuous

Past Perfect Continuous

Future Perfect Continuous

Утвердительная форма

I (we, you, they) have been examining

he (she, it)

has been examining

I (he, she, it, we you, they) had been examining

I (he, she, it, we, you, they) will have been examining

Вопросительная форма

Have

I (we, you, they) been examining?

Has he (she, it) been examining?

Had

I (he, she, it, we, you, they) been examining?

Will

I (he, she, it, we, you, they) have been examining?

Отрицательная форма

I (we, you, they)

have not

been examining

He (she, it)

has not been examining

I (he, she, it, we, you, they) had not

been examining

I (he, she, it, we, you, they) will not have been examining

Употребление Present вместо Future в условных и временных придаточных предложениях

В английских придаточных предложениях *времени и условия*, относящихся к будущему времени, *сказуемое в будущем времени не употребляется*: вместо этого глагол-сказуемое употребляется в настоящем времени, хотя на русский язык такое сказуемое переводится будущим временем.

Придаточные предложения условия и времени вводятся союзами: *if - если*; *when - когда* или их эквивалентами (*as soon as - как только*; *after - после того, как*; *before - до того, как*; *перед тем, как*; *till, until - пока, пока не* и некоторыми другими).

If he does not prepare for the examination properly, he will fail.

Он не сдаст экзамен, если не будет заниматься как следует.

As soon as she comes, we will leave for the country.

Как только она придет, мы поедем на дачу.

Страдательный залог

Страдательный залог глагола показывает, что лицо (или предмет), выраженное подлежащим, не является активным исполнителем действия, выраженного глаголом (сказуемым), а, напротив, само подвергается воздействию.

Active Voice Passive Voice

I asked the doctor to examine the patient. I was asked by the doctor to examine the patient.

Особенностью употребления страдательного залога в английском языке является то, что не только глаголы, принимающие прямое дополнение, но и глаголы с предложным дополнением, могут употребляться в страдательном залоге.

Времена группы Simple Passive

Образование времен группы Simple Passive

to be + Participle II

изменяется по лицам, не изменяется

числам и временам

Спряжение глаголов группы Simple Passive инфинитив to be examined

Утвердительная форма

Present Indefinite I am examined

He (she, it) is examined

We (you, they) are examined

Past Indefinite

I (he, she, it) was examined

We (you, they) were examined

Future Indefinite

I (he, she, it, we, you, they) will be examined

Вопросительная форма

Am I examined?

Is he (she, it) examined?

Are you (we, they) examined?

Was I (he, she, it) examined?

Were you (we, they) examined?

Will

I (he, she, it, we, you, they) be examined?

Отрицательная форма

I am not examined

He (she, it) is not examined

You (we, they) are not examined

I (he, she, it) was not examined

We (you, they) were not examined

I (he, she, it, we, you, they) will not be examined

Времена группы *Continuous Passive*

Группа Continuous в страдательном залоге имеет только два времени: Present и Past Continuous. Они образуются при помощи глагола to be в соответствующем лице, числе и времени Continuous и Past Participle смыслового глагола.

Образование времен группы Continuous Passive

to be being + Participle II

изменяется по лицам, не изменяется

числам и временам

Спряжение времен группы Continuous Passive

Утвердительная форма

Present Continuous

I am being examined

He (she, it)

is being examined

We (you, they) are being examined

Past Continuous

I (he, she, it)

was being examined

We (you, they) were being examined

Future Continuous

He употребляется

Вопросительная форма

Am I being examined?

Is he (she, it) being examined?

Are we (you, they) being examined?

Was I (he, she, it) being examined?

Were we (you, they) being examined?

Отрицательная форма

I am not being examined

He (she, it) is not being examined

We (you, they)

are not being examined

I (he, she, it) was not being examined

We (you, they) were not being examined

Времена группы *Perfect Passive*

Образование времен группы Perfect Passive

to have been + Participle II смыслового глагола

изменяется по лицам, не изменяется

числам и временам

Спряжение глаголов группы Perfect Passive инфинитив to have been examined

Present Perfect

Past Perfect

Future Perfect

Утвердительная форма

I (we, you, they) have been examined

He (she, it)

has been examined

I (he, she, it, we,
you, they)
had been examined

I (he, she, it, we, you, they)
will have been examined

Вопросительная форма

Present Perfect Have I
(we, you, they) been examined?
Has he (she, it) been examined?

Past Perfect
Had I (he, she, it, we, you, they) been examined?

Future Perfect
Will
I (he, she, it,
we, you, they)
have been examined?

Отрицательная форма

I (we, you, they) have not been examined He (she, it) has examined

I (he, she, it, we, you, they) had not been examined

I (he, she, it, we, you, they) will not have been examined

Способы перевода страдательного залога на русский язык

Примеры

Перевод

Способы перевода

The patient was examined by the
doctor yesterday

Вчера врач осмотрел больного. (Больной был осмотрен врачом вчера)

Сочетанием глагола быть с краткой формой страдательного причастия;
глаголом в личной форме

The patient was examined for
pneumonia

Больного обследовали
по поводу пневмонии

Неопределенно-личным оборотом

The patient was examined at the
clinic

Больной обследовался

в клинике

Возвратным глаголом (с окончанием -ся, -сь)

Согласование времен (Sequence of Tenses)

ЕСЛИ в главном предложении сказуемое стоит в одной из форм настоящего или будущего времени, то сказуемое в придаточном дополнительном предложении может быть в любом времени, которое требуется по смыслу.

Правило согласования времен в английском сложно-подчиненном предложении касается только придаточных дополнительных предложений и выражается в том, что:

ЕСЛИ в *главном* предложении сказуемое стоит в *прошедшем* времени, то и в *придаточном дополнительном* предложении *сказуемое должно стоять* также в одной из форм *прошедшего* времени, причем:

а) если действие придаточного дополнительного предложения совпадает по времени с действием главного предложения, то в придаточном предложении употребляется Past Simple или Past Continuous.

I thought (that) you *were* ill. Я думал, что вы *больны*.

I thought that your parents Я думал, что ваши родители
lived in Moscow. *живут* в Москве.

I thought that you *were examining* Я думал, что вы *осматриваете*

your patients at 9 o'clock. ваших больных в 9 часов.

Сравните с русским языком, где два одновременных действия в прошлом выражаются прошедшим временем в главном предложении и настоящим временем в дополнительном придаточном предложении:

I said that I worked here. Я сказал, что работаю здесь.

б) если действие придаточного дополнительного предложения предшествовало действию главного предложения, то в придаточном предложении употребляются Past Perfect или Past Perfect Continuous, и оба предложения переводятся прошедшим временем:

He said that he had been seriously ill. Он сказал, что он тяжело болел. He said that his parents had lived in Moscow. Он сказал, что его родители жили в Москве.

в) если действие, выраженное сказуемым придаточного дополнительного предложения, относится к будущему времени по отношению к действию, выраженному сказуемым главного предложения в прошедшем времени, то сказуемое придаточного предложения должно стоять в форме так называемого *будущего в прошедшем* (Future in the Past) - времени, употребляющемся в английском языке ТОЛЬКО при согласовании времен: I thought (that) I would go to the Crimea. I knew (that) they would be working at the time. He was sure (that) he would have examined all patients by 2 o'clock.

Модальные глаголы

Модальными называются глаголы, которые самостоятельно (без инфинитива смыслового глагола) не употребляются, так как выражают не действие, а отношение к нему: возможность, вероятность,

желательность, необходимость, выполнимость и т.д. К модальным глаголам относятся can, may, must, need, ought, shall, should, will, would.

Вместе с инфинитивом смыслового глагола они образуют составное глагольное сказуемое.

Модальные глаголы отличаются от других глаголов тем, что:

1. Они не имеют неличных форм (инфинитива, причастия, герундия) и не употребляются в повелительном наклонении.
2. Инфинитив после этих глаголов употребляется без частицы *to* (за исключением глагола *ought*).

3. Они не изменяются по лицам и числам и в Present Simple не имеют окончания -s в 3-м лице единственного числа.
4. Глаголы can, may, shall, will имеют формы настоящего и прошедшего времени, а глаголы must, ought, need - только форму настоящего времени.
5. При наличии в сказуемом модального глагола вопросительная форма образуется без помощи вспомогательного глагола to do. Его функцию выполняет модальный глагол, который и ставится перед подлежащим.
6. Отрицательная форма образуется при помощи частицы not, которая ставится после модального глагола, причем с глаголом can она пишется слитно (cannot).

Can

1. Глагол can выражает *физическую возможность, способность, умение выполнить действие*, выраженное инфинитивом.

He can perform any operation. Он может сделать любую операцию.

2. Can в сочетании с Perfect Infinitive и отрицанием not выражает *недопущение возможности* совершения указанного действия и инфинитив переводится на русский язык сказуемым в прошедшем времени.

He can't *have said* it. Не может быть, чтобы он так *сказал*.

May

1. Глагол may в сочетании с Simple Infinitive употребляется для выражения *разрешения, возможности (запрещения, невозможности - в отрицательных предложениях), предположения, неуверенности*:

You may walk a little every day.

Вы можете (вам разрешается) ходить понемногу каждый день. He may help you. Он может помочь вам.

2. May в сочетании с Perfect Infinitive употребляется для выражения *предположения, относящегося к прошлому*, причем инфинитив переводится сказуемым в прошедшем времени:

The patient may *have learned* about the diagnosis from his people.

Возможно (может быть), больной *узнал* о своем диагнозе от родных.

Must

1. Глагол *must* выражает *обязательство, необходимость, долг, приказание, совет*:

My toothache is getting worse... I'm afraid I must consult a dentist.

Зуб болит все сильнее... Боюсь, мне придется (необходимо/нужно) пойти к стоматологу.

You must make the analyses immediately.

Вы должны (Вам необходимо/надо) срочно сдать анализы.

2. *Must* может выражать и *предположение*, причем, если за ним следует простой инфинитив (Simple Infinitive), действие сказуемого относится к *настоящему времени* (1), если же этот инфинитив перфектный (Perfect Infinitive), то к *прошедшему* (2):

1. You must *be* ill: your temperature is very high.

Наверное (должно быть), ты *болен*: у тебя очень высокая температура.

2. I have a sore throat. I must *have caught* a cold. У меня болит горло. Должно быть, я *простудился*.

Shall

В качестве модального глагола *shall* употребляется со 2-м и 3-м лицом единственного и множественного числа для выражения *обещания, приказания, предостережения, угрозы*:

You shall finish the job no matter how much you don't like the idea.

Вы закончите работу, как бы вам этого ни не хотелось (*приказание, угроза*: иначе будет плохо).

He shall teach him a lesson or two, make no mistake. Можете быть уверены, он его проучит, как следует (*обещание, предостережение*).

Should

1. *Should* в качестве модального глагола употребляется со всеми лицами для выражения *морального долга* или *совета* и переводится на русский язык глаголами *должен, следует, следовало бы*: You should follow the doctor's instructions or you won't get well. Вам следует (Вы должны) выполнять предписания врача, иначе вы не поправитесь.

2. Should + Simple Infinitive обычно употребляется со всеми лицами в придаточных предложениях:

а) дополнительных - после таких глаголов, как to require - *требовать*, to demand - *требовать*, to recommend - *рекомендовать*, to advise - *советовать*. (Сам модальный глагол в таких случаях иногда не употребляется совсем):

The consulting surgeon demanded *that* the patient (should) be operated on at once.

Хирург-консультант потребовал, чтобы больного немедленно прооперировали.

б) подлежащих, вводимых *that* и безличными предложениями типа *it is (im)possible* - (*н*е)возможно, *it is necessary/important* - необходимо/важно, *it is natural/desirable* - естественно/желательно и т.п.

На русский язык они переводятся придаточными предложениями, вводимыми союзом *чтобы* со сказуемым в сослагательном наклонении, или неопределенной формой глагола: *That he should see an experienced prosthetist is beyond any doubt*. Несомненно ему следовало бы показаться опытному протезисту. *It is desirable that you should consult another specialist*. Вам желательно (*Было бы желательно, чтобы вы проконсультировались*) проконсультироваться у другого специалиста.

в) Should также употребляется в оборотах: I should like to - *мне бы хотелось*, I should think/consider - *я бы считал (рассматривал)*, I should prefer - *я бы предпочел*, и т.п.

Эти выражения часто встречаются в медицинской литературе и употребляются авторами для того, чтобы сдержанно выразить свое мнение или свою точку зрения. В разговорной речи эти обороты также употребляются говорящими для более мягкого

выражения своего мнения. На русский язык они переводятся сказуемым в сослагательном наклонении:

I should like to draw your attention to this phenomenon.

Мне бы хотелось обратить ваше внимание на это явление.

Will

В качестве модального этот глагол употребляется со всеми лицами для выражения *высокой степени вероятности, желания,*

готовности или *решимости* выполнить действие, выраженное инфинитивом, в некоторых случаях придавая этому действию негативный оттенок:

He will abuse drugs, no matter how much we asked him not to.

Он все равно злоупотреблял лекарствами, как мы его ни отговаривали.

Would

1. *Would* в качестве модального употребляется для выражения *предположения, желания, совета* и переводится на русский язык сказуемым в сослагательном наклонении:

It would be most dangerous to delay the operation.

Было бы чрезвычайно опасно откладывать операцию.

2. *Would* (обычно в отрицательной форме) употребляется со всеми лицами для выражения *упорного нежелания совершить действие*, обозначенное инфинитивом:

The nurse told the patients not to leave the ward, but they wouldn't listen.

Медсестра просила больных не выходить из палаты, но они не желали ничего слушать.

3. *Would* (наряду с *should*) употребляется в оборотах *I would like, we would believe/think/consider, I would suggest*, и т.п., переводимых на русский как *.мне бы хотелось, мы считали бы, я бы предложил* и т.п.

Заменители модальных глаголов

1. Поскольку глаголы *can, may* не имеют формы будущего времени, а *must* - и прошедшего, то вместо них употребляются их заменители-эквиваленты:

Эти выражения часто встречаются в медицинской литературе и употребляются авторами для того, чтобы сдержанно выразить свое мнение или свою точку зрения. В разговорной речи эти обороты также употребляются говорящими для более мягкого

выражения своего мнения. На русский язык они переводятся сказуемым в сослагательном наклонении:

I should like to draw your attention to this phenomenon.

Мне бы хотелось обратить ваше внимание на это явление.

Will

В качестве модального этот глагол употребляется со всеми лицами для выражения *высокой степени вероятности, желания, готовности* или *решимости* выполнить действие, выраженное инфинитивом, в некоторых случаях придавая этому действию негативный оттенок:

He will abuse drugs, no matter how much we asked him not to.

Он все равно злоупотреблял лекарствами, как мы его ни отговаривали.

Would

1. *Would* в качестве модального употребляется для выражения *предположения, желания, совета* и переводится на русский язык сказуемым в сослагательном наклонении:

It would be most dangerous to delay the operation.

Было бы чрезвычайно опасно откладывать операцию.

2. *Would* (обычно в отрицательной форме) употребляется со всеми лицами для выражения *упорного нежелания совершить действие*, обозначенное инфинитивом:

The nurse told the patients not to leave the ward, but they wouldn't listen.

Медсестра просила больных не выходить из палаты, но они не желали ничего слушать.

3. *Would* (наряду с *should*) употребляется в оборотах *I would like, we would believe/think/consider, I would suggest*, и т.п., переводимых на русский как *мне бы хотелось, мы считали бы, я бы предложил* и т.п.

Заменители модальных глаголов

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can - to be able to;

may - to be allowed to;

must - to have to.

2. Отрицательная и вопросительная формы с эквивалентами *to be able to, to be allowed to* образуются по общему правилу для глагола *to be*, а для *to have to* - при помощи вспомогательного глагола *to do* в соответствующем времени, лице и числе.

We don't have to come every day. Did he have to perform the operation?

Неличные формы глагола Причастие (The Participle)

Причастие - это неличная форма глагола, которая обладает свойствами как глагола, так и прилагательного. В английском предложении причастие может выполнять функцию определения или обстоятельства. В последнем случае оно может переводиться деепричастием. Причастие имеет формы времени и залога.

Формы причастия переходных глаголов

Active

Passive

Participle I Participle II Perfect Participle

sending having sent

being sent sent

having been sent

Формы причастия непереходных глаголов

Active

Passive

Participle I Participle II Perfect Participle

going gone having gone

-

Простые формы причастия

Причастие настоящего времени (Participle I)

Причастие настоящего времени образуется от основной формы глагола при помощи окончания - ing: go - going, speak - speaking. Оно соответствует русскому действительному причастию с суффиксами-ущ (-ющ), -ащ (-ящ): идущий (-ая, -ее, -ие), говорящий (-ая, -ее, -ие).

Функции Present Participle

В предложении Present Participle (Participle I) может выступать в роли определения и обстоятельства.

1. В функции определения к существительному оно может стоять как перед ним, так и после него:

The symptoms of stomatitis include infection and inflammation of the mucous membrane of the mouth often involving gingiva, palate, tongue, cheeks and lips.

Симптомы стоматита включают инфицирование и воспаление слизистой рта, частораспространяющееся на десны, небо, щеки и губы.

2. В функции обстоятельства Participle I соответствует русскому деепричастию, обычно несовершенного вида и может стоять в начале предложения (перед подлежащим), после сказуемого и в конце предложения.

Examining the patient the doctor made the diagnosis of acute pulpitis. Осматривая больного, врач поставил диагноз 'острый пульпит'. On fine days many patients spend time in the hospital garden reading books or walking around.

В хорошую погоду многие больные проводят время в больничном саду, читая книги или прогуливаясь.

Если Participle I употребляется в функции обстоятельства времени, перед ним могут стоять союзы *when* или *while*. Такие обороты переводятся как придаточным обстоятельственным предложением, так и деепричастным оборотом:

When looking at a drop of blood under the microscope one can see what our blood consists of.

Рассматривая (Если рассмотреть) каплю крови под микроскопом, можно увидеть ее элементы.

3. Participle I в сочетании с личными формами глагола *to be* употребляется для образования всех времен Continuous.

Причастие прошедшего времени (Participle II)

Причастие прошедшего времени (Past Participle), или III форма глагола, у правильных (стандартных) глаголов полностью совпадает со второй формой глагола (Past Simple), поскольку тоже оканчивается на *-d*, *-ed* (разница выражается только в функции). Для неправиль-

ных глаголов определенной формы Past Participle не существует, поэтому необходимо просто заучивать их или консультироваться в словаре. (Список наиболее часто употребляемых неправильных глаголов дан в Приложении 1).

На русский язык причастие прошедшего времени переводится полным страдательным причастием, оканчивающимся на: *-ный*, *-мый*, *-тый*:

written - написанный;

washed - вымытый;

studied - изучаемый, изученный.

Функции Past Participle

В предложении Participle II выступает только в одной функции - определения, стоящего перед или после определяемого слова, часто в составе причастного оборота (обороты эти запятыми обычно не выделяются):

The examined patient's teeth were found perfectly healthy.

Зубы осмотренного больного оказались в полном порядке.

The patient examined was sitting in the corridor when he caught my eye.

Осмотренный (обследованный) больной сидел в коридоре, когда

я его увидел.

The patient examined by the doctor had no complaints.

Пациент, обследованный/осмотренный врачом, жалоб не имел.

Сложные формы причастия

Present Participle Passive

Эта форма выражает действие, происходящее одновременно с действием сказуемого и может переводиться как причастным оборотом, так и придаточными предложениями, а то и просто существительным с предлогом:

Being anesthetized, the patient suddenly lost consciousness. Во время анестезии (Когда больному проводили анестезию), больной (он) вдруг потерял сознание.

Perfect Participle Active

Perfect Participle Active выполняет в предложении функцию обстоятельства, выражая действие, предшествовавшее действию сказуемого, и переводится на русский язык деепричастием совершенного вида,

придаточным обстоятельственным предложением с глаголом совершенного вида в прошедшем времени или просто существительным с предлогом:

Having examined the patient the doctor wrote out a prescription.

Осмотрев больного, ...

После осмотра больного...

После того, как врач осмотрел больного, он выписал рецепт.

Самостоятельный причастный оборот (Absolute Nominative Participial Construction)

Если в английском предложении в состав причастного оборота входит существительное или местоимение в именительном падеже, которое стоит перед причастием, и эта конструкция отделяется от главного предложения запятой, она называется *самостоятельным причастным оборотом*. Перевод самостоятельного причастного оборота зависит от места его расположения в предложении.

Если оборот располагается в начале предложения, он переводится на русский язык обстоятельством придаточным предложением, вводимым союзными словами так как; после того, как; когда; в связи с тем, что и т.п.

Если в конце, то присоединяется к нему при помощи союзов причем, и, а, но.

Отличительной особенностью абсолютного причастного оборота является то, что *причастие* в нем никогда *не переводится причастием*, но нужной по смыслу личной формой глагола (как бы сказуемое), которая полностью согласуется с именем или местоимением, стоящим перед ним (как бы подлежащим), в лице и числе.

The boy suffering badly, the doctor gave him an injection to relieve the pain. *Поскольку* мальчик сильно страдал, врач сделал ему обезболивающий укол.

His general condition improved, the temperature still running high. Общее состояние его улучшилось, *но* температура оставалась высокой.

The operation having been performed, the patient was taken to the ward. *После того, как* была сделана операция, больного отвезли в палату.

Инфинитив (The Infinitive)

Инфинитив - это неличная форма глагола, выражающая действие, но не указывающая на лицо, число, время.

Формальным признаком инфинитива обычно является частица *to*, которая ставится перед ним, но смыслового значения не имеет и в некоторых случаях опускается.

В английском языке каждая из четырех групп времен имеет свою форму инфинитива, причем переходные глаголы имеют формы действительного и страдательного залога, а непереходные - только действительного залога.

Инфинитив каждой группы выражает относительное время по отношению ко времени сказуемого.

Формы инфинитива переходных глаголов

Indefinite/Simple

Active

to examine

Passive

to be examined

Continuous

to be examining

Perfect

to have examined

to have been examined

Perfect Continuous

to have been examining

Инфинитив может выполнять следующие функции в предложении:

1. Подлежащего:

To treat neglected diseases is very difficult. Лечить запущенные болезни очень трудно.

2. Именной части составного сказуемого (с глаголом-связкой to be): The doctor's duty is to treat patients.

Долг врача - лечить больных.

3. Части составного глагольного сказуемого:

- после модальных глаголов can, may, must, и др. (без частицы to);
- после глаголов to have, to be в модальном значении;
- после таких глаголов, как to begin - *начинать*, to continue - *продолжать*, to want - *хотеть*, to wish - *желать*, to plan - *планировать*, to intend - *намереваться* и т.п., выражающих начало, продолжение или конец действия, или отношение лица, выраженного подлежащим, к действию, выраженному инфинитивом:

You must consult a dentist. Вы должны обратиться к стоматологу.

He had to take a course of antibiotics. Ему пришлось пройти курс лечения антибиотиками.

The surgeon intended to begin the operation at once. Хирург решил (намеревался) оперировать безотлагательно.

4. Дополнения:

The doctor told the patient to come again. Врач сказал больному, чтобы он пришел на прием еще раз.

The sick child wanted to be read to. Больной ребенок просил, чтобы ему читали.

5. Определения.

Инфинитив-определение (Active и Passive) может переводиться различно:

- инфинитивом:

We have every reason to be proud of our achievements.

У нас есть все основания гордиться нашими достижениями.

- придаточным определительным предложением или сказуемым (после слов: *the first, the last* и т.п.):

A. Flemming was the first to discover penicillin.

А. Флемминг был первым, кто открыл пенициллин. (А. Флемминг первым открыл пенициллин.)

б. Обстоятельства цели:

Перед инфинитивом цели иногда может стоять союз *in order (to)* или *so as (to)* *чтобы, для того, чтобы*:

(In order) To keep teeth healthy one must observe oral hygiene rules. Чтобы иметь хорошие зубы, нужно соблюдать правила гигиены полости рта.

Инфинитив в функции обстоятельства цели часто переводится существительным с предлогом:

To prevent caries one must reduce consumption of sweets in the first place. Для профилактики кариеса, прежде всего, необходимо есть меньше сладкого.

Сложное дополнение (The Complex Object)

1. The Complex Object состоит из группы слов, в состав которой входит имя (или местоимение) в косвенном падеже и инфинитив. На русский язык сложное дополнение переводится придаточным дополнительным предложением, причем подлежащим этого придаточного является именная часть Complex Subject, а сказуемым - инфинитив, который переводится личной формой глагола, согласующейся с именной частью сложного подлежащего: инфинитив сложного дополнения НИКОГДА не переводится инфинитивом. При этом простой инфини-

тив (Simple Infinitive) переводится настоящим временем, перфектный (Perfect Infinitive) - прошедшим, а страдательный (Passive Infinitive) - сказуемым в страдательном залоге.

The Complex Object употребляется после глаголов, выражающих

а) *желание*: to want - хотеть; to wish, to desire - желать; should like,

would like - хотелось бы; б) *предположение*: to think, to believe, to consider - думать, считать, полагать; to expect, to suppose - ожидать, предполагать; to find - находить, признавать, считать;

в) *приказание, просьбу, разрешение*: to order, to command - приказывать; to ask - просить; to allow - разрешать и др.

г) *умственное и физическое восприятие*: to see - видеть, to hear - слышать, to feel - чувствовать; to notice - замечать, to observe - наблюдать и др. После этих глаголов инфинитив употребляется безчастицы to.

После глаголов to force, to make в значении заставлять, принуждать инфинитив также употребляется *без* частицы to: «He made me go there*, the boy said. - «Он заставил меня пойти туда», сказал мальчик.

I know him to be a good specialist. Я знаю, что он - хороший специалист.

I expect him to arrive tomorrow. Я полагаю, (что) он придет завтра. He felt the pain become less. Он почувствовал, что боль проходит.

They heard him call the nurse. Они слышали, что (как) он позвал медсестру.

2. Глагольная часть Complex Object может быть выражена причастием настоящего времени, и тогда оно переводится на русский язык придаточным предложением с союзным словом *как*:

The doctor heard the patient's heart beating irregularly.

Врач слышал, *как* неровно бьется сердце больного.

Сложное подлежащее (The Complex Subject)

Английское сложное подлежащее (так же, как и сложное дополнение) состоит из двух частей:*имени (местоимения)* в именительном падеже *и инфинитива*, между которыми расположено сказуемое.

Сказуемое при сложном подлежащем представлено следующими глаголами:

1) в страдательном залоге: to know - *знать*, to think - *думать*, to consider - *считать*, to believe -*полагать*, to expect - *ожидать (рассчитывать)*; to say - *сказать*, to state - *заявить (констатировать)*; to report - *сообщать*; to suppose -*предполагать* и т.п. 2) в действительном залоге:
а) to look - *выглядеть*; to seem to appear - *казаться*; to prove, to turn out - *оказаться*;

б) to be в сочетании с прилагательными, выражающими разную степень вероятности: (more/less) likely - *(более/менее) вероятный*; unlikely, not likely - *маловероятный*; sure, certain - *несомненный, безусловный*.

В русском языке аналога этому грамматическому явлению нет, и потому необходимо знать как переводить эту конструкцию, чтобы она звучала естественно.

Перевод предложения *начинается со сказуемого*, которое переводится глаголом (часто возвратным) в неопределенно-личной форме, а затем идет придаточное дополнительное предложение, подлежащим которого является именная часть сложного подлежащего, а сказуемым - его глагольная часть (инфинитив), который переводится нужной по смыслу личной формой глагола, согласующейся с подлежащим этого придаточного предложения.

He is known/said/believed to be a good doctor. *Известно/говорят/полагают*, что он хороший врач. The first heart transplant *was reported* to be performed in the South African Republic.

Сообщалось, что первая пересадка сердца проведена в ЮАР
Penicillin *proved* to be ineffective against Gram negative bacteria. *Оказалось*, что пенициллин неэффективен при инфекциях, вызванных грамотрицательными бактериями. The patient *is likely* to recover soon. *Вероятно*, больной скоро поправится. He *is sure* to recover soon. Он, *несомненно*, скоро поправится.

Герундий (The Gerund)

В современном английском языке герундий - это неличная форма глагола, выражающая название действия, процесса или состояния и обладающая свойствами как глагола, так и существительного. Образуется Gerund так же, как и Present Participle: при

помощи окончания *-ing*, которое добавляется к основной форме глагола: *speaking, teaching*.

Обладая свойствами существительного, герундий может быть в предложении: подлежащим, частью сказуемого, прямым/предложным дополнением, определением и обстоятельством (в этой функции, где герундий можно спутать с причастием настоящего времени, он всегда употребляется с предлогом).

Обладая свойствами глагола, герундий может иметь:

1. Прямое дополнение: I like reading books on physiology.
2. Может определяться наречием: The doctor insisted on X-raying the patient immediately
3. Может иметь формы Simple и Perfect и формы действительного и страдательного залогов. Эти формы выражают относительное время по отношению ко времени сказуемого.

Формы герундия

Active Passive

Indefinite writing being written

Perfect having written having been written

Отглагольное существительное

Окончание -ing имеют не только причастие и герундий, но и отглагольное существительное, которое обладает всеми свойствами существительного: имеет форму множественного числа, употребляется с артиклем, может определяться прилагательными, в предложении может выполнять все функции существительного. После отглагольного существительного часто следует существительное с предлогом of.

The reading of books is important for everybody.

Чтение книг - полезно для всех.

Отглагольное существительное всегда переводится только существительным.

IV. СИНТАКСИС

Порядок слов в английском предложении

Ввиду почти полного отсутствия окончаний, в английском предложении существует строго фиксированный порядок слов: на первом

месте стоит подлежащее, на втором - сказуемое, на третьем - дополнение, на четвертом - обстоятельство (обстоятельства времени и места могут стоять перед подлежащим). Но этот порядок слов меняется в зависимости от вида предложения: повествовательного или вопросительного, отрицательного.

Порядок слов в утвердительном предложении

0

I

II

Ш

IV

Обстоятельство

Подлежащее

Сказуемое

Дополнение

Обстоятельство

Косвенное беспредложное

Прямое

Косвенное предложное

Места

Времени

1.

The

show

their case

to their

after the

students

reports

teachers

lectures

2. Sometimes

they

show

them

their case

in the

after the

(the

reports

clinics

round

teachers)

of wards

Порядок слов в вопросительных предложениях

OO

O

I

II

III

IV

1.

Do

students

show

case reports

to their teachers

in the clinic

after the round?

2. What

(case
reports)

do are have

students students students

show

showing

shown

to their teachers

in the clinic

after the round?

3. Why (when, where, etc.)

will "

(must,

should,

etc.)

students

show

case reports

to their teachers?

4.

Who

shows

case reports

to the teachers

in the clinic

after the round?

Общие вопросы (General Questions)

Общий вопрос - это вопрос ко всему предложению, который требует в ответ «да» или «нет».

Порядок слов в английском вопросительном предложении называется *обратным*, т.е. изменяется таким образом, что в начале предложения, *перед подлежащим*, ставится вспомогательный, первый вспомогательный или модальный глагол (см. таблицу выше), затем идет подлежащее, смысловой глагол в основной форме (или остальная часть сказуемого, которое может состоять из нескольких вспомогательных глаголов и соответствующей формы смыслового глагола), а затем все остальные члены предложения.

Общий вопрос произносится с повышением голоса (восходящий тон) в конце предложения:

- ↗ Is she a student? — ↘ Yes, she ↘ is. ↘ No she ↘ isn't.
- ↗ Can he speak English? — ↘ Yes, he ↘ can. ↘ No, he ↘ can't (cannot).
- ↗ Will they come? — ↘ Yes, they ↘ will. ↘ No they ↘ won't.
- ↗ Has the exercise been done? — ↘ Yes, it ↘ has. ↘ No it ↘ hasn't.

Специальные вопросы (Special Questions)

Специальный вопрос - это вопрос к одному из членов предложения и начинается он с вопросительного слова (*who, what, why, when, how many*, и т.п.), а дальше идет структура общего вопроса *абсолютно без изменений*. Произносится специальный вопрос с понижением голоса на последнем ударном слоге (нисходящий тон).

Безличные предложения (с формальным *it*)

Если в русском предложении, которое обозначает явления природы, время, расстояние или ощущения, нет подлежащего и оно не подразумевается, то такое предложение называется безличным.

В английском предложении не может не быть подлежащего, и поэтому в безличных предложениях, где нет субъекта действия, в функции такого (формального) подлежащего употребляется местоимение *it*, которое на русский язык не переводится.

Сказуемое английского безличного предложения обычно состоит из глагола-связки *to be*, выражающего функцию времени, и именной

части сказуемого, выраженной прилагательным, существительным или числительным.

It is getting cold. Холодает. (Становится холодно).

It was autumn. Была осень.

It'll be warm soon. Скоро будет тепло.

Неопределенно-личные предложения

Английские неопределенно-личные предложения состоят из формального подлежащего *it* (*one, everybody, they*) и согласованного с ним сказуемого. С местоимением *it* сказуемое всегда употребляется в страдательном залоге.

It is known that... Известно, что...

One/Everybody knows that... Известно/Каждый знает, что...

They know that... Все знают, что...

Выделение членов предложения при помощи усилительной конструкции *if is (was/will be) ... that (who/which), it was not until... that*

Усилительные конструкции типа *it is ... that/who/which* используются для усиления смысла того, о чем «говорит» многоточие. При переводе смысл того, что находится между *it is* и *that (who/which)* выделяется добавлением

слов именно...; только...; только после...; только тогда, когда..., в то время, как сами эти слова не переводятся вообще.

It is thanks to scientific research that many dangerous diseases have been eliminated.

Именно/Только благодаря науке положен конец многим опасным заболеваниям.

It was not until 1628 that blood circulation was first described by W. Harvey.

Только в 1628 году появилась первая работа Гарвея о кровообращении.

ПРИЛОЖЕНИЯ

Приложение 1

Неправильные глаголы

Base form

Past simple

Past participle

Present Participle

Перевод

arise

arose

arisen

arising

возникать

be

was

were

being

быть

bear

bore

born, borne

bearing

1) носить;

2) родить

beat

beat

beaten

beating

бить

become

became

become

becoming

становиться

begin

began

begun

beginning

начинать

bind

bound

bound

binding

СВЯЗЫВАТЬ

bite

bit

bitten

biting

кусать

bleed

bled

bled

bleeding

кровоточить

break

broke

broken

breaking

ломать

breed

bred

bred

breeding

выводить, разводить

bring

brought

brought

bringing

приносить

build

built

built

building

строить

burn

burnt

burnt

burning

сжигать; гореть

burst

burst

burst

bursting

разрывать; лопаться

buy

bought

bought

buying

покупать

catch

caught

caught

catching

ПОЛЗТИ

cut

cut

cut

cutting

резать

deal

dealt

dealt

dealing

ИМЕТЬ ДЕЛО

do

did

done

doing

делать

draw

drew

drawn

drawing

1) рисовать;

2) тянуть

dream

dreamt, dreamed

dreamt, dreamed

dreaming

1) мечтать;

2) видеть во сне

drink

drank

drunk

drinking

ПИТЬ

drive

drove

driven

driving

везти, приводить в движение

eat

ate

eaten

eating

ЕСТЬ; ПИТАТЬСЯ

fall

fell

fallen

falling

падать

feed

fed

fed

feeding

КОРМИТЬ

feel

felt

felt

feeling

чувствовать

fight

fought

fought

fighting

бороться

flow

flew

flown

flowing

течь

fly

flew

flown

flying

летать

forbid

forbade

forbidden

forbidding

запрещать

forget

forgot

forgotten

forgetting

забывать

foresee

foresaw

foreseen

foreseeing

предвидеть

freeze

froze

frozen

freezing

замораживать, замерзать

get

got

got

getting

1) получать;

2) достигать

give

gave

given

giving

давать

go

went

gone

going

идти

grind

having

ИМЕТЬ

hear

heard

heard

hearing

СЛЫШАТЬ

hide

hid

hidden

hiding

прятать (ся)

hit

hit

hit

hitting

ударять

hold

held

held

holding

держатъ

hurt

hurt

hurt

hurting

причинять боль, вред

keep

kept

kept

keeping

держать

know

knew

known

knowing

знать

lay

laid

laid

laying

класть

lead

led

led

leading

вести, руководить

leave

left

left

leaving

оставлять

lend

lent

lent

lending

давать займы

let

let

let

letting

позволять

lie

lay

lain

lying

лежать

light

lit

lit

lighting

освещать

lose

lost

lost

losing

терять

make

made

made

making

1) делать, создавать;

2) заставлять

mean

meant

meant

meaning

значить, означать

meet

met

met

meeting

встречать

put

put

put

putting

класть

read

read

read

reading

читать

ring

rang

rung

ringing

звонить

rise

rose

risen

rising

поднимать (ся)

run

ran

run

running

бежать

say

said

said

saying

ГОВОРИТЬ

shake

shook

shaken

shaking

ВСТРЯХИВАТЬ

shut

shut

shut

shutting

ЗАКРЫВАТЬ

shrink

shrank

shrunk

Past participle

Present Participle

Перевод

see

saw

seen

seeing

видеть

seek

sought

sought

seeking

искать

sell

sold

sold

selling

продавать

send

sent

sent

sending

посылать

set

set

set

setting

устанавливать

sit

sat

sat

sitting

сидеть

slide

slid

slid

sliding

скользить

smell

smelt

smelt

smelling

пахнуть

speak

spoke

spoken

speaking

говорить

speed

sped

sped

speeding

ускорять

split

split

split

splitting

расщеплять (ся)

spoil

spoiled, spoilt

spoiled, spoilt

spoiling

портить (ся)

spread

spread

spread

spreading

распространяться)

stand

stood

stood

standing

1) стоять;

2) выдерживать

stick

stuck

stuck

sticking

прилипать

strike

struck

struck

striking

ударять

swell

swelled

swollen

swelling

распухать

swim

swam

swum

swimming

ПЛЫТЬ, ПЛАВАТЬ

take

took

taken

taking

брать

teach

taught

taught

teaching

преподавать, обучать

tear

tore

torn

tearing

разрывать (ся)

tell

told

told

telling

сказать, рассказать

think

thought

thought

thinking

думать

throw

threw

thrown

throwing

бросать

wake

woke

woken

waking

1) будить;

2) просыпаться

weave

wove

woven

weaving

ткать, сплетать

win

won

won

winning

побеждать

withdraw

withdrew

withdrawn

withdrawing

удалять

write

wrote

written

writing

to comment on - толковать; объяснять
to deal with - иметь дело с; заниматься
to depend on - зависеть от
to dispose of - удалять; убирать, избавляться от
to do away with - покончить с
to get in touch with - связаться с
to insist on (upon) - настаивать на
to look at - смотреть на (заботиться; искать,
(after, for, into, upon) рассматривать)
to make reference to - ссылаться на; упоминать
to pay attention to - обращать внимание на
to call attention to - привлекать внимание к
to refer to - ссылаться на; упоминать
to rely on (upon) - полагаться на
to send for - посылать за
to take care of - заботиться (о)
to talk about (of) - разговаривать (о)
to think of - думать (о)
to write about - писать (о)

Приложение 3 Устойчивые сочетания с глаголом to be

to be about to do something - собираться сделать что-л.
to be accustomed to - иметь обыкновение (привычку)
to be in agreement - согласовывать (ся); не противоречить
быть в соответствии (с чем-л.) to be attributable to - быть отнесенным к...
to be available - иметься в наличии; быть доступным
to be aware of - знать о...
to be of benefit - быть полезным

that's the case - это именно тот случай

to be a method of choice - быть методом выбора (лучшим методом)

to be comparable - быть сравнимым

to be (in)compatible with - быть (несовместимым с

to be concerned with - касаться чего-л.;

иметь отношение к чему-л. to be consistent with - соответствовать;
согласовываться

to be due to - быть обусловленным; объясняться;

происходить вследствие (чего-л.) to be familiar with - быть знакомым с; знать

to be in favour of - говорить в пользу; поддерживать

to be of importance - быть важным

to be of interest - представлять интерес

to be in keeping with - соответствовать

to be open to criticism

to be in question - быть спорным; вызывать сомнение

to be open to question to be in progress - проводиться

to be prone to - быть склонным к чему-л.; иметь
тенденцию

to be proper - быть соответствующим;

соответствовать to be related to - быть связанным с

to be responsible for - отвечать за

to be subject to - подвергаться

to be of use - быть полезным

Приложение 4

Соединительные слова

accordingly - соответственно

admittedly - по общему признанию

all in all - полностью, целиком

although - хотя

as - так как; по мере того, как; как

as usual - как обычно

as well as - а также; так же, как

besides - кроме, помимо

both ... and - и ... и

but - но; кроме, помимо

but for - если бы не

in conclusion - в заключение

consequently - следовательно, поэтому,
в результате

under the circumstances - в данных обстоятельствах
(условиях, ситуации)

despite/in spite of - несмотря на

for example - например

either ... or - или ... или

even though - даже хотя, хотя

exceptionally - исключительно

in fact - действительно, в действительности

finally - наконец

first (firstly) - во-первых

for - так как; потому что; ибо

fortunately (unfortunately) - к счастью (к сожалению)

further - далее; кроме того

furthermore - более того

on the one hand ... on the other - с одной стороны ... с другой сто
(hand) роны

hence - следовательно

however - однако

indeed - действительно

likewise - подобным образом, так же

to our knowledge - насколько нам известно

moreover - кроме того, более того

neither ... nor - ни ... ни

namely - а именно

nevertheless - тем не менее

nonetheless (none the less) - тем не менее

once - когда; однажды

occasionally - время от времени; иногда

second (secondly) - во-вторых

similarly - подобным образом

since - так как; с; с тех пор, как

so far - до сих пор

so far as - насколько

subsequently - следовательно

in conclusion - в заключение; подводя итоги

therefore - следовательно, поэтому

thereby - таким образом

thus - так, таким образом

unless - если не

unless otherwise indicated - если не указано (оговорено) иначе (stated)

until - до тех пор пока (не)

not until - только после

whereas - в то время, как

whenever - когда бы ни

wherever - где бы ни, куда бы ни

while) - в то время, как; когда; пока; тогда

whilst как

Приложение 5

Сложные предлоги

according to - согласно

in accordance with - в соответствии

on account of - из-за

in addition to - в дополнение к

in advance of - заранее, перед

ahead of - досрочно

along with - наряду

apart from - помимо, за исключением

as for - что касается

aside from - помимо, кроме, не считая

because of - из-за

in case of - в случае

in comparison with - в сравнении с

in connection with - в связи с

in consequence of - вследствие

contrary to - вопреки

due to - вследствие, из-за, благодаря

except for - за исключением, если бы не

instead of - вместо

irrespective of - вне зависимости от, несмотря на

owing to - благодаря

in reference to - в отношении, что касается

as regards - в отношении, что касается

in/with regard (respect) to - относительно, в отношении

in respect of/to - в отношении, что касается

for the sake of - ради

save for - за исключением

in spite of - несмотря на

thanks to - благодаря

in view of - ввиду

Приложение 6

Латинские и греческие существительные (ед. и мн. ч.)

analysis [ə'næləsɪs] — analyses [ə'næləsɪz]	анализ
bacillus [bə'sɪləs] — bacilli [bə'sɪləɪ]	бацилла
bacterium [bæk'tɪ(ə)rɪəm] — bacteria [bæk'tɪ(ə)rɪə]	бактерия
basis [ˈbeɪsɪs] — bases [ˈbeɪsɪz]	основа, базис
coccus [ˈkɒkəs] — cocci [ˈkɒk(s)aɪ]	кокк
crisis [ˈkraɪsɪs] — crises [ˈkraɪsɪz]	кризис
criterion [kraɪ'tɪ(ə)rɪən] — criteria [kraɪ'tɪ(ə)rɪə] / criteria	критерий
datum [ˈdɛtəm] — data [ˈdɛtə, ˈdɑ:tə]	данная величина
focus [ˈfəʊkəs] — foci [ˈfəʊsaɪ] / focuses	фокус, центр, очаг
formula [ˈfɔ:mjʊlə] — formulae [ˈfɔ:mjʊli:] / formulas	формула
fungus [ˈfʌŋɡəs] — fungi [ˈfʌŋɡaɪ] / funguses	грибок
genus [ˈdʒɪ:nəs] — genera [ˈdʒenərə]	род
hypothesis [ˈhɪpəθɪsɪs] — hypotheses [ˈhɪpəθɪsɪz]	гипотеза
locus [ˈləʊkəs] — loci [ˈləʊsaɪ]	место
medium [ˈmi:diəm] — media [ˈmi:diə]/mediums	среда
nucleus [ˈnju:kliəs] — nuclei [ˈnju:kliəɪ]	ядро
ovum [ˈɒvəm] — ova [ˈɒvə]	яйцо
phenomenon [fɪ'nɒmɪnən] — phenomena [fɪ'nɒmɪnə]	явление
serum [ˈsɪ(ə)rəm] — sera [ˈsɪ(ə)rə]/serums	сыворотка
spectrum [ˈspektrəm] — spectra [ˈspektrə]	спектр
thesis [ˈθɪ:sɪs] — theses [ˈθɪ:sɪz]	тезис, диссертация
viscus [ˈvɪskəs] — viscera [ˈvɪsərə]	внутренний орган

Некоторые буквы греческого алфавита

Α α	alpha	[ˈælfə]
Β β	beta	[ˈbi:tə]
Γ γ	gamma	[ˈgæmə]
Μ μ	mu	[mju:]
Χ χ	chi	[hi:]

Приложение 7

Braces: A Parts List

Because your braces are built especially for your mouth, they can shift your teeth with great accuracy. Each part of your braces plays a role in guiding this precise movement.

Archwires are thin wire strips that connect your teeth and guide their movement

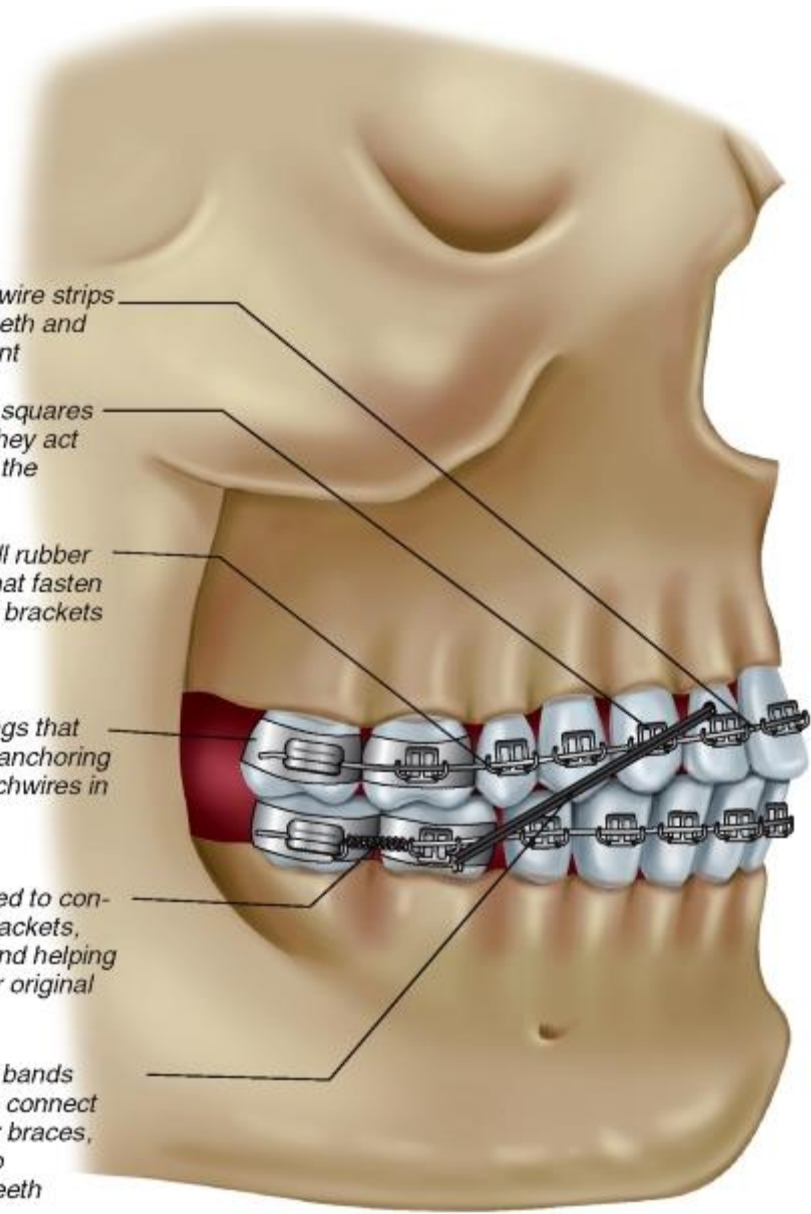
Brackets are small squares attached to each. They act like handles to hold the archwires in place

Ligatures are small rubber rings or fine wires that fasten the archwires to the brackets

Bands are metal rings that encircle your teeth, anchoring the brackets and archwires in place

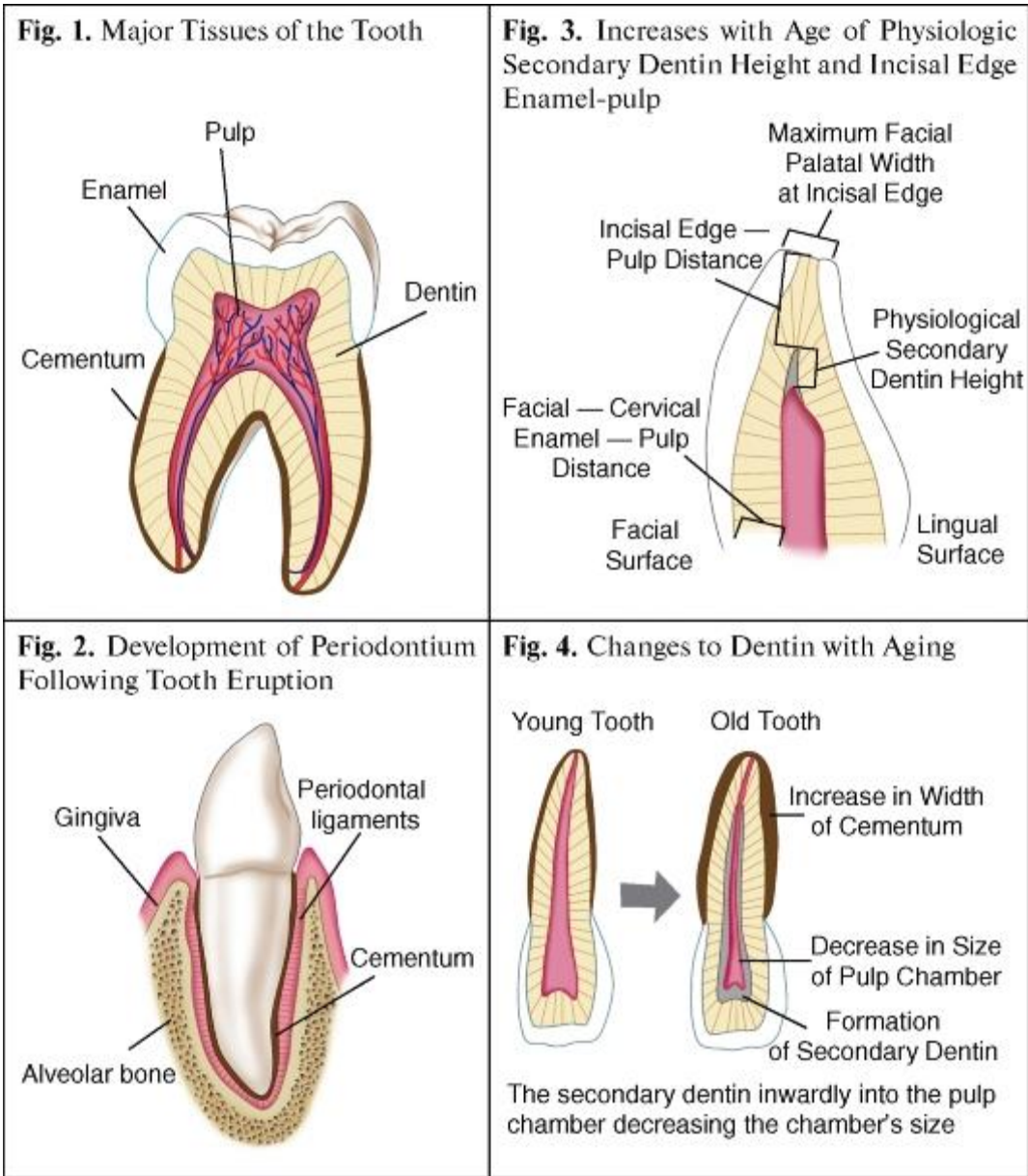
Springs may be used to connect archwires to brackets, applying pressure and helping archwires keep their original shape

Elastics are rubber bands that may be used to connect the upper and lower braces, applying pressure to reposition specific teeth



Приложение 8

Normal Aging of Teeth



Приложение 9

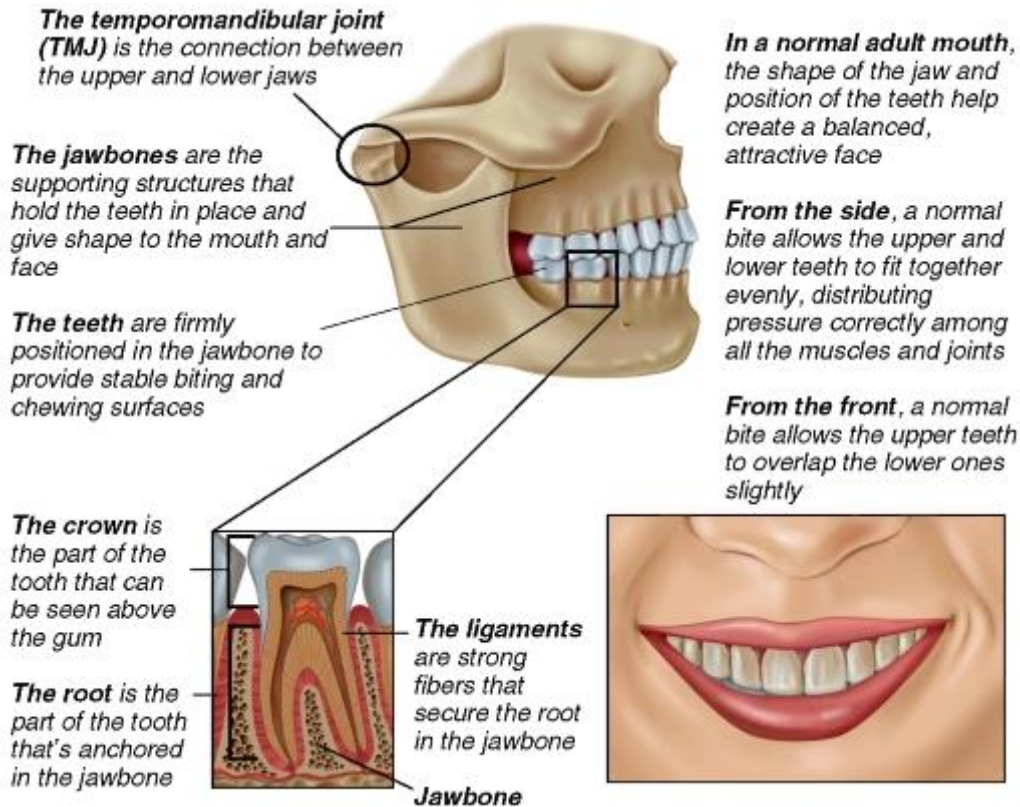
A Normal Adult Mouth

In a normal mouth, the upper and lower teeth fit together when you bite down. The teeth move easily against each other during chewing and the mouth feels relaxed, producing a pleasing appearance. But if your teeth don't meet, or if they meet unevenly, you have a bite problem. Chewing ability and your facial appearance may both be affected by one or more common bite problems, such as a crossbite or crowded teeth.

A Normal Adult Mouth

By the late teens or early twenties, the jaw has finished growing, and the size and shape of the mouth is complete. Orthodontists consider an adult mouth "normal" if the teeth fit comfortably into the available space - even if the mouth contains

fillings, crowns, or other dental corrections. A comfortable fit allows the jawbones and joints to work together without pain.



Приложение 10

Common Bite Problems

If your teeth protrude or don't meet when you bite down, your problem may be caused the way your teeth fit into the jawbone. Your bad bite (malocclusion) may even be caused by a combination of problems, such as protruding and twisted teeth. If it's only the position of your teeth that is causing your bite problem, braces will improve your condition.

Overbite



The upper teeth protrude excessively and may make it difficult to bite into solid food, such as an apple or an ear of corn. In some cases, an overbite may make your lips thrust forward.

Open Bite



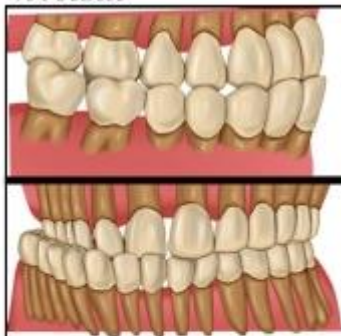
The front teeth don't close when the back teeth meet, so biting into food may be a problem. An open bite sometimes makes it difficult for lips to close. This can strain face muscles.

Deep Bite



The upper front teeth drop too far over the lower ones when the jaws meet. This can cause the lower front teeth to strike gum tissue behind the upper teeth.

Crossbite



Lower teeth cover upper ones when the jaws meet, causing uneven chewing pressure. This can strain the jaw joint or muscles and cause some teeth to wear down excessively.

Twisted or Crowded Teeth



Twisted or tipped teeth may stick out of line or take up extra space, causing some teeth to be crowded in the jawbone. This can make brushing difficult and gum trouble more likely.

Missing Teeth



Missing teeth — whether they were pulled or failed to come in — may cause surrounding teeth to shift position to fit in the gap. This can place uneven pressure on the jaw joint and muscles.

Приложение 11

Латинские термины

ab initio - в начале

ad hoc - на данный случай

ad libitum - сколько (как) угодно; по желанию; на выбор

a posteriori - на основании опыта

a priori - заранее; независимо от опыта

corrigenda - список ошибок

cum - с, включая

de novo - вновь

in parvo - в незначительной мере

in re/re - относительно, по вопросу
in situ - на месте
in toto - в целом
in vitro - в лабораторном сосуде
in vivo - в естественных условиях, в живом организме
ipso facto - в силу очевидности
modus operandi - способ действия
mutatis mutandis - сделав соответствующие изменения
pari passu - попутно
per capita - на душу населения
per iterum - тем временем
per se - сам по себе; по существу
prima facie - на первый взгляд
pro rata - пропорционально
pro tern - временно, в данное время
sui generis - своего рода, своеобразный
vice versa - напротив, наоборот

Приложение 12

Латинские сокращения

a.c. - anni currentis - текущего года
a.i. - ad interim - временный; временно
a.m. - ante meridiem - до полудня
с. (ca.) - circa - приблизительно, около
с. - cum - с, включая
cf. - confer - сравни
e.g. - exempli gratia - например
et al. - et alii - и другие
etc. - et cetera - и так далее
ib., ibid. - ibidem - там же, в том же месте
id. - idem - то же самое, так же, то же
i.e. - id est - то есть

in ex. - in extenso - довольно полно, полностью
in loc. - in loco - на своем месте
int.al. - inter alia - между прочим
lbs. - libra - фунты
med. - medium - середина, центр
N.B. - nota bene - примечание
op.cit. - opus citatum - цитируемое произведение
oz. - ounce - унция (= 28,3 г)
p.m. - post meridiem - после полудня
pro et con. - pro et contra - за и против
s. - sine - без
s.s. - sensu stricto - в буквальном смысле
u.i. - ut infra - как указано
vs. - versus - по сравнению с, напротив
v.v. - vice versa - наоборот, напротив
viz. - videlicet - а именно, то есть

Приложение 13

Приставки и суффиксы, используемые в медицинской терминологии

Приставки

Prefix Meaning

A

a-

without, not

ab-

away from

abdo- I abdomino- J

abdominal

acro-

extremity

ad-

towards

adeno-

glandular

aer-

air

akkyl-

crooked; bent; stiff

algesi-

pain, excessive sensitivity to

alveol-

alveolus, air sac, small sac

amb-) ambi- J

both, on both sides

amido-

NH₂ group united to an acid radical

amino-

NH₂ group united to a radical other than an acid radical

amphi-

on both sides, around

amyl-

starch

an-

not, without

ana-

up

andro-

ante- I antero- J

before

antro-

antrum

aorto-

aorta

app-

away, from

arachn-

spider

arthoro-

joint

B

bi-

twice, two

bili-

bile

bio-

life

blenno-

mucus

bleph-

eyelid

brachio-

arm

brachy-

short

brady-

slow

broncho-

bronchi

neck

cheil-

lip

cheir-

hand

chemo-

chemical

chlor-

green

cholecysto-

gallbladder

choledocho-

common bile duct

chondro-

cartilage

chrom-

colour

cine-

film, motion

circum-

around

cocolcomcon- •

together

coli-

bowel

colpo-

vagina

contra-

against

costo-

rib

cox-

hip

crani- 1 cranio- J

skull

cryo-

cold

crypt-

hidden, concealed

cyan-

blue

cysto-

bladder

cyto-

cell

de-

away, from, reversing

deca-

ten

deci-

tenth

demi-

half

dent-

tooth

derma- 1 dermat- J

skin

dextro-

to the right

di-/dip-

two, double

dia-

through

dis-

separation, against

dorso-

dorsal

dys-

difficult, painful, abnormal

E

ecto-

outside, without, external

electro-

electricity

em-

in

en- | end- > endo-J

in, into, within

ent-

within

entero-

intestine

epi-

on, above, upon

ery-

red

eu-

well, normal

ex- 1 exo- J

away from, out, out of

iron

feto-

fetus

fibro-

fibre, fibrous tissue

flav-

yellow

fore-

before, in front of

G

gala-

milk

gastro-

stomach

genito-

genitals, reproductive

ger-

old age

glosso-

tongue

glyco-

sugar

gnatho-

jaw

gynae-

female

H

haema-1 haemo- J

blood

hemi-

half

hepa- | hepatico- > hepato- J

liver

hexa-

six

histo-

tissue

homeo-

constant

homo-

same

hydro-

water

hygro-

moisture

hyper-

above

below

hystero-

uterus

I

iatro-

physician

idio-

peculiar to the individual

ileo-

ileum

ilio-

ilium

immuno-

immunity

in-

not, in, into, within

infra-

below

inter-

between

intra- 1 intro- J

within inward

ischio-

ischium

iso-

equa

K

karyo-

nucleus

kerato-

horn, skin, cornea

kypho-

rounded, humped

L

lact-

milk

laparo-

flank

laryngo-

larynx

lepto-

thin, soft

leuco- 1 leuko- J

white

lympho-

lymphatic

M

Prefix

Meaning

medi-

middle

mega-

large

melano-

pigment, dark

meso-

middle

meta-

between

metro-

uterus

micro-

small

milli-

a thousandth

mio-

smaller

mono-

one, single

muco-

mucus

multi-

many

myc-

fungus

myelo-

spinal cord, bone marrow

myo-

muscle

N

narco-

stupor

nasto-

nose

necro-

corpse, dead

neo-

new

nephro-

kidney

neuro-

nerve

noct-

night

normo-

normal

nucleo-

nucleus

nyc-

night

O

oculo-

eye

odonto-

tooth

oligo-

deficiency, diminution

oo-

egg, ovum

oophor-

ovary

ophthalmo-

eye

opisth-

backward

orchido-

testis

oro-

mouth

ortho-

straight

os-

bone, mouth

osteo-

bone

oto-

ear

ova-

egg

ovari-

ovary

P

pachy-

thick

paed-

child

pan-

all

para-

beside

patho-

disease

ped-

child, foot

penta- 1

five

pento- J

per-

by, through

peri-

around

perineo-

perineum

pharma-

drug

pharyngo-

pharynx

phlebo-

vein

phono-

voice

photo-

light

phren- 1

diaphragm, mind

physio- J

form, nature

many

pneumo-

lung

podo-

foot

polio-

grey

poly-

many, much

post-

after

pre- 1 pro- J

before

proct-

anus

proto-

first

pseudo-

false

psycho-

mind

pyelo-

pelvis of the kidney

pyo-

pus

pyr-

fever

Q

quadri-

four

quint-

five

R

radi-

ray

radio-

radiation

re-

again, back

ren-

kidney

retro-

backward

rhin-

nose

rub-

Prefix

Meaning

sapro-

dead, decaying

sarco-

flesh

sclero-

sclera

scota-

darkness

semi-

half

sept-

seven

sero-

serum

socio-

sociology

sphygm-

pulse

spleno-

spleen

spondy-

vertebra

steato-

fat

sterno-

sternum

sub-

below

supra-

above

syn-

together, union, with

T

tabo-

tabes

tachy-

fast

tarso-

foot, edge of eyelid

teno-

tendon

tetra-

four

thermo-

heat

thoraco-

thorax

thrombo-

blood clot

thyro-

thyroid gland

tibio-

tibia

tox-

poison

tracheo-

trachea

Prefix

Meaning

trich-

hair

tropho-

nourishment

U

ultra-

beyond

uni-

one

uretero-

ureter

urethro-

urethra

uri-

urine

uro-

urine, urinary organs

utero-

uterus

Prefix Meaning

V

vaso-

vessel

veno-

vein

vesico-

bladder

X

xanth-

yellow

xero-

dry

xiphi- 1 xipho- J

ensiform cartilage of sternum

Z

zoo- animal

Суффиксы

Suffix

Meaning

-able

able to, capable of

-aemia

blood

-aesthesia

sensibility, sense, perception

-agra

attack, severe pain

-al

characterized by, pertaining to

-algia

pain

-an

belonging to, pertaining to

-ase

catalyst, enzyme

-asis

state of

-blast

cell

-caval

pertaining to venae cavae

-cele

tumour, swelling

-centesis

to puncture

-cule

little

-cyte

cell

-derm

skin

-desis

to bind together

-dynia

pain

-ectasis

dilation, extension

-facient

making

-form

having the form of

-fuge

expelling

-genesis -genetic

formation, origin

-genie

capable of causing

-gogue

increasing flow

-gram

record

-graph

inflammation of

-kinesis -kinetic

motion

-lith

-lithiasis

calculus, stone presence of stones

-logy

science of, study of

-lysis -lytic

breaking down disintegration

-malacia

softening

-megaly

enlargement

-meter

measure

-morph

form

-odynia

pain

-ogen

precursor

-oid

likeness, resemblance

-ol

alcohol

-ology

the study of

-oma

tumour

-opia

eye

-opsy

looking

-ose

sugar

-osis

condition, disease, excess

-ostomy

to form an opening or outlet

-otomy

incision of

-ous

like, having the nature of

-path

disease

-penia

lack of

-pexy

fixation

-phage

ingesting

-phagia

swallowing

-phasia

affinity for, loving

-phobia

fear

-phylaxis

protection

-plasty

reconstructive surgery

-plegia

paralysis

-pnoea

breathing

-poiesis

making

-ptosis

falling

-rhage

to burst forth

-rhaphy

suturing

-rhoea

excessive discharge

-rhythmia

rhythm

-saccharide

basic carbohydrate molecule

-scope

instrument for visual examination

-scopy

to examine visually

-somatic

pertaining to the body

-somy

pertaining to chromosomes

-sonic

sound

-stasis

stagnation, cessation of movement

-sthenia

strength

-stomy

to form an opening or outlet

-taxia -taxis -taxy

arrangement, coordination, order

-tome

cutting instrument

-tomy

incision of

-trophy

nourishment

-tropia

turning

-uria

Urine

АНГЛО-РУССКИЙ СЛОВАРЬ

СОКРАЩЕНИЯ

a - adjective - имя прилагательное pl - plural - множественное

число

adv - adverb - наречие prep - preposition - предлог

conj - conjunction - союз pron - pronoun - местоимение

n - noun - имя существительное v - verb - глагол

PHONETIC SYMBOLS Vowels and diphtongs

i:	as in	see	si:	ɜ:	as in	fur	fɜ:(r)
ɪ	as in	sit	sɪt	ə	as in	ago	ə'gəʊ
e	as in	ten	θen	eɪ	as in	page	peɪdʒ
æ	as in	hat	hæt	əʊ	as in	home	həʊm
ɑ:	as in	arm	ɑ:m	aɪ	as in	five	faɪv
ɒ	as in	got	gɒt	aʊ	as in	now	naʊ
ɔ:	as in	saw	sɔ:	ɔɪ	as in	join	dʒɔɪn
ʊ	as in	put	pʊt	ɪə	as in	near	nɪə(r)
u:	as in	too	tu:	eə	as in	hair	heə(r)
ʌ	as in	cup	kʌp	ʊə	as in	pure	pjʊə(r)
i	as in	happy	'hæpi				

Consonants

p	as in	pen	pen	s	as in	so	səʊ
b	as in	bad	bæd	z	as in	zoo	zu:
t	as in	tea	ti:	ʃ	as in	she	ʃi:
d	as in	did	dɪd	ʒ	as in	vision	'vɪʒn
k	as in	cat	kæt	h	as in	how	haʊ
g	as in	got	gɒt	m	as in	man	mæn
tʃ	as in	chin	tʃɪn	n	as in	no	nəʊ
dʒ	as in	June	dʒu:n	ŋ	as in	sing	sɪŋ
f	as in	fall	fɔ:l	l	as in	leg	leg
v	as in	voice	vɔɪs	r	as in	red	red
θ	as in	thin	θɪn	j	as in	yes	jes
ð	as in	then	ðen	w	as in	wet	wet

Aa

abdomen	[ˈæbdəmən, əbdəʊmən]	n	брюшная полость, живот
abdominal	[æbˈdɒmɪnl]	a	брюшной, абдоминальный
ability	[əˈbɪlɪtɪ]	n	способность, возможность, квалификация, умение
abnormality	[æbnɔːrˈmælɪtɪ]	n	аномалия, отклонение от нормы
abolish	[əˈbɒlɪʃ]	v	отменять, упразднить
above	[əˈbʌv]	adv	наверху, выше, сверху, над, свыше
abreast	[əˈbreɪst]	adv	1) в ряд, рядом; 2) на уровне, в уровне с
abscess	[ˈæbsɪs]	n	абсцесс, нарыв, гнойник
absorb	[əbˈsɔːb]	v	всасывать, впитывать, поглощать
absorption	[əbˈsɔːpʃn]	n	поглощение, впитывание, абсорбция
acceptance	[əkˈseptəns]	n	принятие, согласие
accessory	[əkˈsesəri]	a	добавочный, вспомогательный
accident	[ˈæksɪdənt]	n	случайность, несчастный случай
accommodate	[əkəˈmɒdeɪt]	v	приспосабливать, снабжать
accompany	[əkəmˈpəni]	v	сопровождать, сопутствовать
according (to)	[əˈkɔːdɪŋ]	prep	в соответствии, согласно
accumulate	[əkjuːmjʊˈleɪt]	v	накапливать, собирать
accuracy	[ˈækjərəsi]	n	точность, правильность
accurate	[ˈækjərət]	a	точный, правильный
accurately	[ˈækjərətli]	adv	точно, правильно
ache	[eɪk]	n	боль, страдание
		v	болеть, ныть
achieve	[əˈtʃiːv]	v	достигать, добиваться, доводить до конца
achievement	[əˈtʃiːvmənt]	n	достижение, выполнение
acid	[ˈæsɪd]	n	кислота
		a	кислый, кислотный
acoustic	[əˈkuːstɪk]	a	акустический, звуковой
~ meatus	[mɪˈeɪtəs]	n	наружный слуховой проход
acquire	[əˈkwɪə]	v	приобретать, достигать, овладевать
acquired immune deficiency syndrome (AIDS)	[əˈkwɪəd ɪˈmjuːn dɪˈfɪ(ə)nsi ˈsɪndrəʊm]		синдром приобретенного иммунодефицита (СПИД)

actinic rays	[æk'tɪnɪk 'reɪz]		химические лучи, ультрафиолетовые лучи
actual	['æktʃʊəl]	a	фактический, действительный
acute	[ə'kju:t]	a	острый, тяжелый (симптом)
adapt	[ə'dæpt]	v	приспосабливать, адаптировать
addict	['ædɪkt]	n	наркоман, алкоголик
addition	[ə'dɪf(ə)n]	n	прибавление, дополнение
in ~ to			кроме, помимо
adequate	['ædɪkwɪt]	a	достаточный, соответствующий, адекватный
adhere	[əd'hɪə]	v	прилипать, приставать
adjoining	[ə'dʒɔɪnɪŋ]	a	прилегающий, смежный, соседний
administer	[əd'mɪnɪstə]	v	назначать, давать, приме- нять (лечебное средство)
admit	[əd'mɪt]	v	1) допускать, впускать, позво- лять; 2) госпитализировать; 3) признавать
adopt	[ə'dɒpt]	v	принимать, выбирать, усваивать
adult	['ædʌlt, ə'dʌlt]	n, a	взрослый человек, взрослый, совершеннолетний, для взрослых
advance	[əd'vɑ:ns]	n	продвижение, прогресс, успех, улучшение
advanced	[əd'vɑ:nsɪt]	a	передовой, продвинутый
advantage	[əd'vɑ:ntɪdʒ]	n	преимущество, выгода, польза
advice	[əd'vaɪs]	n	совет; консультация (врача); мнение
advise	[əd'vaɪz]	v	советовать, консультировать
adviser	[əd'vaɪzə]	n	консультант
affect	[ə'fekt]	v	воздействовать, трогать, поражать
aide-memoire	[aɪdmem'wɑ:]	n	памятная записка, памятка, запись, заметка для памяти
aim	[eɪm]	n, v	цель, намерение; стремиться, ставить целью
air	[ɛə]	n, a, v	воздух; воздушный; проветривать
airflow	['ɛəfləʊ]	n	воздушное течение, воздушный поток
albumin	['ælbju:mɪn]	n	белок, альбумин
alcohol	['ælkəhɒl]	n	спирт, алкоголь, спиртные напитки
align	[e'laɪn]	v	выравнивать (линию, ряд)
alignment	[e'laɪnmənt]	n	выравнивание

alimentary	[ˈæliˈmentəri]	a	пищеварительный, питательный
alkaline	[ˈælkəlaɪn]	a	щелочной
alleviate	[əˈli:vɪeɪt]	a	облегчать (боль)
allocation	[ˌæləˈkeɪʃ(ə)n]	n	ассигнование, выделение денежных средств
alloy	[ˈæləɪ]	n	сплав
alteration	[ˌɔltəˈreɪʃ(ə)n]	n	изменение, перестройка (организма), перемена
although	[ɔ:lˈðəʊ]	conj	хотя, несмотря на то, что; если бы даже
alveolar	[ˈælvɪələ], [ˌælvɪˈəʊlə]	a	альвеолярный, ячеистый, луночный
alveolus, -i	[ˌælvɪˈəʊləs] [ˌælvɪˈəʊləɪ]	n	альвеола, ячейка
amalgam	[əˈmælgəm]	n	амальгама
ambulance	[ˈæmbjuləns]	n	1) автомобиль, карета скорой помощи; 2) полевой госпиталь, санитарный отряд
amelogenesis	[ˈæmələʊsɪˈdʒenəsɪs]	n	недоразвитие эмали
amino acid	[əˌmiːnəʊˈæsɪd]	n	аминокислота
amount	[əˈmaʊnt]	n	количество, сумма
amylase	[ˈæmɪleɪs]	n	амилаза
anaemia	[əˈniːmiə]	n	анемия, малокровие
anaemic	[əˈniːmɪk]	a	анемичный, малокровный
anaesthetic	[ˌænəsθetɪk]	a n	анестезирующий анестетическое, обезболивающее средство
anastomose,	[əˈnæstəməʊs]	n	соединение (сосудов, нервов);
anastomosis	[əˌnæstəˈməʊsɪs]	n	разветвление, анастомоз
anastomosing	[əˌnæstəˈməʊzɪŋ]	a	анастомозирующий, разветвляющийся
anatomy	[əˈnætəmi]	n	анатомия
anchor	[ˈæŋkə]	v	закреплять (внутри чего-либо)
ancient	[ˈeɪnʃ(ə)nt]	a	древний, старинный
anemic	[əˈniːmɪk]	a	малокровный, анемичный, бескровный
anesthetic	[ˌæntsθetɪk]	n, a	анестезирующее, обезболиваю- щее средство; обезболивающий, анестезирующий
anodyne	[ˈænədaɪn]	n	болеутоляющее средство
anomaly	[əˈnɒməli]	n	аномалия, отклонение от нормы
anterior	[ænˈtɪ(ə)rɪə]	a	передний, предшествующий
antero-posterior	[ˈæntɪərɪəpɔˈstɪ(ə)rɪə]	a	передне-задний

antero-posteriorly	[ˈæntɪərɪəpɔːstɪ(ə)rɪəl]	adv	спереди назад
antibiotic	[ˈæntɪbaɪˈɒtɪk]	n	антибиотик; относящийся к антибиотикам
antipyrin (e)	[ˈæntɪˈpaɪərɪn]	n	антипирин
antrum	[ˈænrəm]	n	полость, пазуха
antrum of highmore	[ˈænrəm əvˈhaɪməː]	n	верхнечелюстная пазуха, гайморова полость
anus	[ˈeɪnəs]	n	задний проход
apart	[əˈpɑːt]	adv	1) в стороне, отдельно; 2) врозь, порознь
aperture	[ˈæpətʃə]	n	отверстие, щель
apex	[ˈeɪpeks]	n	верхушка, вершина
apical	[ˈæpɪkəl]	a	верхушечный, вершинный, верхний
apparatus	[əˈpɑːrɪtəs]	n	аппарат
apparent	[əˈpæərənt]	a	явный, очевидный
apparently	[əˈpæərəntli]	adv	явно, очевидно; по-видимому
appear	[əˈpiə]	v	1) показываться, появляться; 2) казаться, оказываться
appearance	[əˈpi(ə)rəns]	n	внешний вид, появление, явление
appetite	[ˈæpɪtaɪt]	n	аппетит
appliance	[əˈplɑːns]	n	приспособление, прибор; применение
applicable	[əˈplɪkəb(ə)l]	a	применимый, пригодный, соответствующий
applicant	[ˈæplɪkənt]	n	заявитель, проситель; тот, кто подает заявление (о приеме в вуз, зачисление на работу), кандидат, претендент
application	[ˈæplɪˈkeɪʃən]	n	применение, употребление; заявление
applied	[əˈplɑːd]	a	прикладной
apply	[əˈplɑː]	v	1) прилагать, прикладывать, применять, употреблять; 2) подавать заявление
appoint	[əˈpɔɪnt]	v	назначать, утверждать
appointment	[əˈpɔɪntmənt]	n	назначение, прием (у врача и т.п.)
to have an – with the doctor			быть назначенным (записанным) на прием к врачу
approach	[əˈprɔːʃ]	n, v	подход, приближение; подходить, приближаться
appropriate	[əˈprɔːprɪt]	a	соответствующий, должный

arch	[ɑ:tʃ]	n	дуга, свод
arched	[ɑ:tʃt]	a	кривой, выгнутый, сводчатый
area	['e(ə)riə]	n	область, зона, участок
areolar tissue	[ə'ri:ɒlə'tʃu:, -'tʃu:]	n	рыхлая соединительная ткань
arise	[ə'raɪz]	v	возникать, появляться,
(arose, arisen)			поднимать, вставать
arrange	[ə'reɪndʒ]	v	располагать, устраивать (ся),
			прииспосабливать
arrangement	[ə'reɪndʒmənt]	n	устройство, расположение
arrest	[ə'rest]	n	задержка, остановка
		v	останавливать, приостанавливать
artery	['ɑ:təri]	n	артерия
arthritis	[ɑ:'θraɪtɪs]	n	воспаление суставов, артрит
articular	[ɑ:'tɪkjʊlə]	a	суставной
articulate	[ɑ:'tɪkjʊleɪt]	a	ясный, отчетливый
		v	связывать, соединять
articulation	[ɑ:'tɪkjʊ'leɪʃ(ə)n]	n	сочленение
artificial	[ɑ:tɪ'fiʃ(ə)l]	a	искусственный
artificially	[ɑ:tɪ'fiʃ(ə)li]	adv	искусственно
as well as		conj	также как, как и
aspect	['æspekt]	n	вид, взгляд, аспект, сторона
aspirin	['æsprɪn]	n	аспирин, ацетилсалициловая кислота
assess	[ə'ses]	v	оценивать
assessment	[ə'sesmənt]	n	оценка
assign	[ə'saɪn]	v	определять, устанавливать,
			поручать, назначать
assume	[ə'sju:m]	v	предполагать
attach	[ə'tætʃ]	v	прикреплять
attempt	[ə'tempt]	n, v	попытка, проба; пытаться,
			пробовать
attend	[ə'tend]	v	посещать, уделять внимание
attendance	[ə'tendəns]	n	посещение
attitude	[ə'tɪtju:d]	n	позиция, отношение, положение,
			поза
attract	[ə'trækt]	v	привлекать
attractive	[ə'træktɪv]	a	привлекательный
auditory	['ɔ:dtɪ(ə)ri]	a	слуховой
~ meatus	['ɔ:dtɪ(ə)ri mɪ'teɪ(ə)s]	n	слуховой проход
auricular	['ɔ:'rɪkjʊlə]	a	ушной, слуховой; относящийся
			к ушной раковине
avoid	[ə'vɔɪd]	v	избегать, уклоняться
awareness	[ə'weənɪs]	n	осведомленность,
			информированность

Bb

back	[bæk]	n	спина, задняя сторона
		adv	сзади
background	[ˈbækgraʊnd]	n	фон, история вопроса, опыт, образование
backward	[ˈbækwəd]	a	обратный (о движении), отсталый
		adv	назад, наоборот
backwardness	[ˈbækwədnis]	n	отсталость
backwards	[ˈbækwədz]	adv	назад, наоборот, обратно
bacterial	[bækˈtɪ(ə)rɪəl]	a	бактериальный
bacterium	[bækˈtɪ(ə)rɪəm]	n	бактерия, микроб
band	[bænd]	n	перевозка, полоса, лента
bean	[bi:n]	n	фасоль, боб
bearing	[ˈbeərɪŋ]	n	ношение, рождение, поведение, осанка
below	[biˈləʊ]	adv	ниже, внизу
		prep	под
bend (bent)	[bend]	v	стигать (ся); гнуть (ся); изгибать (ся)
beneath	[biˈni:θ]	adv	внизу
benefit	[ˈbenɪt]	n, v	польза, выгода
bent	[bent]	n	склонность, наклонность; изгиб
beyond	[biˈjɒnd]	prep	по ту сторону; за, позади
bicuspid	[baɪˈkʌspɪd]	n	малый коренной; премоляр
bifid	[ˈbaɪfɪd]	a	разделенный надвое
bilateral	[baɪˈlæɪ(ə)rəl]	a	двусторонний
bile	[baɪl]	n	желчь
bind (bound)	[baɪnd]	v	связывать, привязывать, скреплять
biochemistry	[ˌbaɪəʊˈkɛmɪstrɪ]	n	биохимия
biology	[baɪˈɒlədʒi]	n	биология
biomechanics	[ˌbaɪəʊmɪˈkæntɪks]	n	биомеханика
bite (bit, bitten)	[baɪt]	v	кусать (ся), откусывать
biting	[ˈbaɪtɪŋ]	n, a	жевательный (о поверхности зубов); кусание, прикусывание
bladder	[ˈblædə]	n	пузырь; мочевой пузырь
bleed (bled)	[bli:d]	v	кровоточить, истекать кровью; пускать кровь
bleeding	[ˈbli:dɪŋ]	n	кровотечение
blood	[blʌd]	n	кровь
blood stream	[ˈblʌdstri:m]	n	ток крови
blow	[bləʊ]	v	дуть, задышаться
(blew, blown)		n	удар

board	[bɔ:d]	n	правление, совет
bodily	['bɒdɪli]	a	телесный, физический
body	['bɒdi]	n	тело
bolus	['bɒləs]	n	пищевой комок; шарик
bonding	['bɒndɪŋ]	n	связывание, склеивание, спешление
bone	[bɒn]	n	кость
bony	['bɒni]	a	костный, костистый
border	['bɔ:də]	n	граница; край
		v	граничить с
born	[bɔ:n]	a	рожденный, прирожденный, врожденный
bottom	['bɒtəm]	n	дно, низ, нижняя часть
bound	[baʊnd]	v	ограничивать, граничить
		a	непременный, обязанный
boundary	['baʊnd(ə)ri]	n	граница
bow	[bəʊ]	n	дуга, арка
bowel	['bəʊəl]	n	кишка, кишечник
braces	['breɪsɪz]	n, pl	ортодонтическая скоба
brain	[breɪn]	n	головной мозг
branch	[bra:ntʃ]	n	ветвь, отрасль, ответвление
		v	разветвляться
breadth	[bredθ]	n	ширина, широта
break	[breɪk]	n	отверстие, трещина; прорыв; перерыв, пауза
break	[breɪk]	v	ломать, разламывать
(broke, broken)			
~ down			распадаться, разрушать
~ up			разбивать на мелкие куски
break-down		n	1) полный упадок сил, здоровья; 2) распад, расщепление
breastbone	['brestbɔ:n]	n	грудина
breath	[breθ]	n	дыхание, вздох
bridge	[brɪdʒ]	n	мост, мостик
broad	[brɔ:d]	a	широкий
broken-down	['brɔ:kən'daʊn]	a	разбитый болезнью, вышедший из строя (о машине и т.п.)
bronchitis	[brɒn'kættɪs]	n	бронхит
brush	[brʌʃ]	n	щетка; чистка щеткой
		v	чистить щеткой
bruxism	['brʌksɪzm]	n	бруксизм (скрежетание зубами во сне)
buccal	['bʌk(ə)l]	a	щечный, расположенный на щеке (в щеке)
buccinator	['bʌksɪnetə]	a	щечный (мускул)
buffer	['bʌfə]	n	буферная зона, защитная зона; буфер, амортизатор
bulging	['bʌldʒɪŋ]	n	выпуклость, вздутие
bulk	[bʌlk]	n	основная масса, объем
bundle	['bʌndl]	n	пучок, связка, узел
burn (burnt)	[bɜ:n]	v	жечь, сжигать, гореть, получать ожог
by far	[baɪ 'fɑ:]	n	намного, гораздо

cadre	['ka:drə, 'ketdrə, 'ka:drə]	n	остов, рамка, кадр (ы), штат
caecum	['si:kəm]	n	слепая кишка
calcification	['kælsɪfɪ'keɪʃ(ə)n]	n	известкование, затвердевание
calcify	['kælsɪfaɪ]	v	затвердевать; обызвестляться
calcium	['kælsɪəm]	n	кальций
calculus	['kælkjʊləs]	n, pl	камень (зубной, почечный, желчный)
call	[kɔ:l]	v	называть, звать
		n	зов; вызов; телефонный вызов
calm	[kɑ:m]	a	спокойный
calomel	['kæləmel]	n	каломель
cancellated	['kæns(ə)leɪtɪd]	a	решетчатый, сетчатый
cancer	['kænsə]	n	рак
canine	['ketnaɪn]; ['kænaɪn]	n	клык (зуб)
cap	[kæp]	n	головка, крышка, колпачок
carbohydrate	[.kɑ:bə(ʊ)'haɪdr(e)ɪt]	n	углевод
carbon dioxide	[.kɑ:bəndaɪ'ɒksaɪd]	n	углекислый газ
card	[kɑ:d]	n	карта, карточка
cardiac	['kɑ:dɪæk]	n, a	кардиотоническое средство, стимулирующий деятельность сердца, сердечный
cardiac	['kɑ:dɪæk]	a	сердечный; относящийся ко входу в желудочек
cardiovascular	[.kɑ:dɪə(ʊ)'væskjʊlə]	a	сердечно-сосудистый
care	[keə]	n	забота, уход; внимание
take - of			заботиться о ком-л., смотреть за кем-л.
careful	['keəf(ə)l]	a	заботливый, осторожный
carefully	['keəf(ə)li]	adv	осторожно, тщательно
caries	['ke(ə)rɪz]	n	разрушение зуба, кариоз
carious	['ke(ə)rɪəs]	a	гнилой, кариозный

carotid artery	[kə'rouɪd 'ɑ:təri]	n	сонная артерия
carrot	['kærət]	n	морковь
carry	['kæri]	v	везти, перевозить; нести, носить
~ out	['kæri'ɑʊt]	v	выполнять, проводить
~ over	['kæri'əʊvə]	v	переносить, откладывать; привлекать на свою сторону; переходить, распространяться
cartilage	['kɑ:t(ə)lɪdʒ]	n	хрящ
carve	[kɑ:v]	v	вырезать, резать (по дереву, кости)
case	[keɪs]	n	случай; коробка, клетка
cast	[kɑ:st]	n, v, a	литье, отливать, отлитый full – -пельюлитой
catarrh	[kə'tɑ:]	n	воспаление слизистой оболочки; катар
catarrhal	[kə'tɑ:r(ə)l]	a	катаральный
cater	['keɪtə]	v	снабжать, обеспечивать, обслуживать
cause	[kɔ:z]	n	причина, повод, дело
cavitation	['kævi'teɪʃ(ə)n]	v	причинять, вызывать
cavity	['kævɪtɪ]	n	образование полостей, препаровка кариозной полости
cell	[sel]	n	полость
cement	[si'ment]	n	клетка, ячейка
cementum	[si'mentəm]	n	цемент
century	['sentʃəri]	n	цемент
certificate	[sə'tɪfɪkət]	n	век, столетие
cervical	['sɜ:vɪk(ə)l]	n	удостоверение, свидетельство
cervicofacial	['sɜ:vɪkə'feɪʃ(ə)l]	a	шейный, затылочный
chain	[tʃeɪn]	a	шейнолицевой
chamber	['tʃeɪmbə]	n	цепь, цепочка
chapter	['tʃæptə]	n	камера; полость
chart	[tʃɑ:t]	n	глава
check-list	['tʃek,lɪst]	n	схема, карта, лист (напр. температурный)
check	[tʃi:k]	n	контрольный список, перечень, памятка
chemical	['kemɪk(ə)l]	n	щека
chemistry	['kemɪstri]	a	химический
chest	[tʃest]	n	химическое вещество
chew	[tʃu:]	n	химия
chin	[tʃɪn]	n	грудная клетка, грудь
chisel	['tʃɪz(ə)l]	v	жевать
		n	подбородок
		n	зубило, резец

chisel-shaped	[tʃɪz(ə)lʃeɪpt]	a	долотообразный
chrome	[krɔ:m]	n	хром
chronic	[ˈkrɒnɪk]	a	хронический
chunk	[tʃʌŋk]	a	толстый кусок; ломоть
ciliary	[ˈsɪlɪəri]	a	ресничный, мерцательный
circle	[ˈsɜ:k(ə)l]	n	круг, окружность; группа; кружок
circular	[ˈsɜ:kjʊlə]	a	круглый, круговой
circulation	[ˈsɜ:kjʊleɪʃ(ə)n]	n	циркуляция, кровообращение
circumstance	[ˈsɜ:kəmstæns]	n, pl	обстоятельство
citizen	[ˈsɪtɪz(ə)n]	n	гражданин
cleaning	[ˈkli:nɪŋ]	n, a	чистка, уборка, очистка; очищающий, очистительный
cleanse	[klenz]	v	чистить, дезинфицировать
clear (up)	[kliə]	v	выяснить, прояснить
cleavage	[ˈkli:vɪdʒ]	n	расщепление, сегментация, дробление
clenching	[klenʃɪŋ]	n	привычка стискивать зубы
close	[klaʊs]	a	закрытый, скрытый, близкий
closely	[ˈklaʊsli]	adv	близко, тесно; внимательно
clue	[klu:]	n	ключ к разгадке, сведения, информация
clump	[klʌmp]	v	сгущиваться, сгруппироваться
coat	[kəʊt]	n	слой, покров, оболочка
cobalt	[ˈkɔ:bo:lt]	n	кобальт
cold	[kəʊld]	a	холодный
		n	холод; простуда
to catch ~			простудиться
~ in the head			насморк
collate	[kəˈleɪt]	v	сравнивать, сопоставлять
collateral	[kəˈlæt(ə)rəl]	a	побочный, второстепенный
collection	[kəˈleɪkʃ(ə)n]	n	коллекция, собрание
colon	[ˈkəʊlən]	n	ободочная кишка, толстая кишка
colour	[ˈkʌlə]	n	цвет; краска; свет
		v	красить, окрашивать
columnar	[ˈkɒləmnə]	a	цилиндрический
combine	[kəmˈbaɪn]	v	объединять, сочетать, смешиваться, соединяться
commence	[kəˈmens]	v	начинать
community	[kəˈmjʊ:nɪti]	n	общество, сообщество (людей)
compartment	[kəmˈpɑ:tmənt]	n	отделение, ячейка, позиция
complain (of)	[kəmˈpleɪn]	v	жаловаться (на)
complaint	[kəmˈpleɪnt]	n	жалоба, страдание, болезнь

complete	[kəm'pli:t]	a	полный, законченный, совершенный;
		v	заканчивать, завершать
completely	[kəm'pli:tli]	adv	совершенно, полностью, вполне
completion	[kəm'pli:ʃ(ə)n]	n	завершение
upon ~			по завершении
complex	['kɒmpleks]	a	сложный, составной, комплексный, трудный, запутанный
complicate	['kɒmplɪkett]	v	усложнять; осложняться
complicated	['kɒmplɪkettɪd]	a	сложный, запутанный
complication	[,kɒmplɪ'keɪʃ(ə)n]	n	сложность, осложнение
compose (of)	[kəm'pəʊz]	v	составлять, состоять (из)
comprehensive	[,kɒmprɪ'hensɪv]	a	полный, всеобъемлющий
concave	['kɒnkeɪv]	a	вогнутый, впадный
conceive	[kən'si:v]	v	понимать, постигать, задумывать
concern	[kən'sɜ:n]	n, v	отношение, беспокойство; касаться, затрагивать, беспокоить, волновать
concerned	[kən'sɜ:nd]	a	касающийся, заинтересованный
condition	[kən'dɪʃ(ə)n]	n	условие; положение; состояние (здоровья); заболевание
conditioned	[kən'dɪʃ(ə)nd]	a	условный (рефлекс)
conduct	[kən'dʌkt]	v	вести, проводить
condyle	['kɒndɪl]	n	мышелок
condyloid	['kɒndɪləɪd]	a	мышелковый
condyloid process		n	суставной отросток
confidence	['kɒnfɪd(ə)ns]	n	доверие, уверенность
confident	['kɒnfɪd(ə)nt]	a	уверенный
confirm	[kən'fɜ:m]		подтверждать
confluent	['kɒnflʊənt]	a	сливающийся; сливной
conform	[kən'fɔ:m]	v	сообразовать (ся); согласовать (ся)
conical	['kɒnɪk(ə)l]	a	конический, конусный, конусообразный
connect	[kə'nekt]	v	соединять (ся), связывать (ся)
connective	[kə'nektɪv]	a	соединительный, связующий
consciously	['kɒnʃəsli]		сознательно
consent	[kən'sent]	n, v	согласие, соглашаться
consequence	['kɒnstkwəns]		последствие
consequently	['kɒnstkwəntli]	adv	следовательно, поэтому, в результате
consider	[kən'sɪdə]	v	рассматривать, обсуждать; полагать, учитывать; принимать во внимание

considerable	[kən'sɪd(ə)rəb(ə)l]	a	большой, значительный, важный
considerably	[kən'sɪd(ə)rəblɪ]	adv	значительно
consist (of)	['kɒnstɪst]	v	состоять из
constantly	['kɒnstəntli]	adv	постоянно, непрерывно
constrict	[kən'strɪkt]	v	сужать, сокращать, стягивать
consult	[kən'sʌlt]	v	консультировать (ся), советовать (ся); обращаться (к врачу)
consume	[kən'sju:m]	v	потреблять, расходовать, съесть, поглощать
consumption	[kən'sʌmpʃ(ə)n]	n	потребление, расход, поглощение
contact	['kɒntækt]	n	соприкосновение, контакт
		v	соприкасаться
contain	[kən'teɪn]	v	содержать в себе; вмещать
contemplate	['kɒntəm'pleɪt]	v	рассматривать, размышлять
contraction	[kən'trækʃ(ə)n]	n	сокращение, сжатие, стягивание
contrary	['kɒntrəri]	a	противоположный
		prep	вопреки
contrast	['kɒntræst]	n	противоположность
in ~ to			в противоположность к;
			по сравнению с
contribute	[kən'trɪbjʊ:t]	v	способствовать, содействовать
control	[kən'trɒl]	n, v	контроль, управление; контролировать, проверять, кунировать (боль)
convenient	[kən'vi:nɪənt]	a	удобный
conventional	[kən'venʃ(ə)nəl]	a	обычный; общепринятый
converge	[kən'vɜ:dʒ]	v	сходиться (о линиях); сводить в одну точку
conversation	[kɒnvə'seɪʃ(ə)n]	n	беседа, разговор
convert	[kɒn'vɜ:t]	v	превращать, переделывать
convex	['kɒnvæks]	a	выпуклый, выгнутый
convexity	[kən'veksɪti]	n	выпуклость, выгнутость
convey	[kən'veɪ]	v	передавать, сообщать, переправлять
coronoid process	['kɒrənɔɪd 'prɒʊsəs]	n	венечный отросток
corpse	[kɔ:ps]	n	труп
correct	[kə'rekt]	v, a	исправлять, правильный
correlation	[kɒrɪ'leɪʃ(ə)n]	n	соотношение
corresponding	[kɒrɪ'spɒndɪŋ]	a	соответствующий, соответственный
cortex	['kɔ:teks]	n, pl	кора головного мозга
costly	['kɒstli]	adv	дорого (о стоимости)
cotton ball	['kɒtn bɔ:l]	n	ватный шарик

count	[kaʊnt]	n, v	анализ, счет, количество; считать, принимать во внимание
cough	[kɔ:f]	n, v	кашель; кашлять
cover	['kʌvə]	v	закрывать, покрывать
covering	['kʌv(ə)rɪŋ]	n	покрышка, оболочка, покров
crack	[kræk]	n, v	трещина; треснуть, раздавить, разгрызть
craftsman	['krɑ:ftsmən]	n	мастер, ремесленник
cranial	['kreɪnɪəl]	a	черепной
cranium	['kreɪnɪəm]	n	череп
create	[kri'eɪt]	v	творить, создавать
crest	[krest]	n	гребень
crooked	['krʊkɪd]	a	изогнутый, кривой
cross	[krɒs]	n	крест
		a	поперечный
		v	пересекать, переходить
crossbite	['krɒsbɑ:t]		перекрестный прикус
crown	[kraʊn]	n	коронка (зуба)
crucial	['kru:ʃ(ə)l]	a	очень важный, критический, решающий
crumble	['krʌmb(ə)l]	v	крошить (ся), распадаться
crush	[krʌʃ]	v	раздавить; дробить, размельчать; мять
crushing injury	['krʌʃɪŋɪ'ndʒəri]	n	травма, сопровождающаяся размножением тканей
curative	['kjʊə(r)ətɪv]	a	лечебный, целебный, целительный
cure	[kjʊə]	n	лечение; лечить, вылечить
curriculum	[kə'rɪkjʊləm]	n	учебный план, курс обучения, расписание
curve	[kɜ:v]	n	кривая дуга; изгиб, кривизна
		v	гнуть, сгибать, изгибать
cuspid	[kʌsp]	n	острый кончик зуба, бугорок
cut (cut, cut)	[kʌt]	v	резать, разрезать; прорезываться
~ down			сокращать
cyst	[sɪst]	n	киста
cytoplasm	['saɪtəplæz(ə)m]	n	цитоплазма, протоплазма клетки

Dd

daily	['deɪlɪ]	adv	ежедневно, каждый день
damage	['dæmɪdʒ]	n, v	вред; повреждать

data	[ˈdeɪtə]	n, pl	данные, факты, информация
deaden	[ˈdedn]	v	заглушать, ослаблять
deal (dealt) with	[di:l]	v	иметь дело с
death	[deθ]	n	смерть
death-rate	[ˈdeθreɪt]	n	смертность; процент смертности
debris	[ˈdebri:]	n	остатки (органических веществ в полости рта), зубной налет
decalcification	[ˈdiː, kælsɪfɪˈkeɪʃ(ə)n]	n	удаление известкового вещества, декальцификация
decay	[dɪˈkeɪ]	v	разлагаться, гнить
		n	кариоз=кариес; гниение; разрушение
decayed	[dɪˈkeɪd]	a	сгнивший, разложившийся, распавшийся, кариозный
decide	[dɪˈsaɪd]	v	решать, решить
deciduous	[dɪˈsɪdʒʊəs]	a	выпадающий, молочный (зуб)
decision	[dɪˈsɪʒ(ə)n]	n	решение
decisive	[dɪˈsaɪsɪv]	a	решающий; решительный; убедительный
decline	[dɪˈklaɪn]	v	снижаться, ухудшаться
decomposition	[diː, kɒmpəˈzɪʃ(ə)n]	n	разложение, распад, расщепление
decrease	[dɪˈkriːs]	n	уменьшение, понижение
		v	уменьшаться, убывать
deepen	[ˈdiːp(ə)n]	v	углублять, усиливать
defer	[dɪˈfɜː]	v	откладывать, задерживать
deficiency	[dɪˈfɪʃ(ə)nsi]	n	недостаточность, недостаток, дефицит
definite	[ˈdefɪnɪt]	a	определенный, точный, ясный
definition	[ˌdefɪˈnɪʃ(ə)n]	n	определение; ясность, четкость
deform	[dɪˈfɔːm]	v	уродовать, искажать, деформировать
deformity	[dɪˈfɔːmɪtɪ]	n	уродливость, уродство; деформация
deglutition	[ˌdiːɡluːˈtɪʃ(ə)n]	n	глотание, проглатывание
degree	[dɪˈɡriː]	n	степень, ступень; градус
delay	[dɪˈleɪ]	n	замедление, задержка
		v	задерживаться, замедлять
dense	[dens]	a	плотный; частый, густой;
dental	[ˈdentl]	a	зубной
dental caries	[ˈdentl ˈkæriəs]	n	кариес зубов
dentine	[ˈdentiːn]	n	дентин
dentist	[ˈdentɪst]	n	зубной врач

dentistry	[ˈdentɪstrɪ]	n	стоматология
dentition	[denˈtɪʃ(ə)n]	n	образование зубов; прорезывание зубов; расположение зубов; прикус; зубной ряд
denture	[ˈdentʃə]	n	зубной протез
fixed partial ~			частичный несъемный протез
partial ~			частичный съемный протез
removable ~			полный съемный протез
depend on	[dɪˈpend]	v	зависеть от
dependent	[dɪˈpendənt]	a	зависимый
depending on	[dɪˈpendɪŋ ˈɒn]		в зависимости
deposit	[dɪˈpɒzɪt]	n	отложение, налет (зубной)
depression	[dɪˈpreʃ(ə)n]	n	впадина, углубление
depressor	[dɪˈpresə]	n	опускающая мышца; депрессор
derive	[dɪˈraɪv]	v	происходить
descend	[dɪˈsend]	v	спускаться, опускаться, снижаться
desirable	[dɪˈzaɪ(ə)rəbl]	a	желательный
desire	[dɪˈzaɪə]	n, v	желание; желать, хотеть
destroy	[dɪsˈtrɔɪ]	v	разрушать, портить
destruction	[dɪsˈtrʌkʃ(ə)n]	n	разрушение, уничтожение
destructive	[dɪsˈtrʌktɪv]	a	разрушительный
detach	[dɪˈtæʃ]	v	отделять, разъединять
detect	[dɪˈtekt]	v	открывать, обнаруживать
detection	[dɪˈtekʃ(ə)n]	n	открытие, обнаружение
determine	[dɪˈtɜːmɪn]	v	определять, устанавливать
develop	[dɪˈveləp]	v	развивать (ся); проявлять (ся)
deviation	[ˌdiːviˈeɪʃ(ə)n]	n	отклонение
device	[dɪˈvaɪs]	n	устройство, приспособление, прибор
devote	[dɪˈvəʊt]	v	посвящать
diabetes	[ˌdaɪəˈbiːtiːz]	n	диабет, сахарная болезнь
diagnose	[ˈdaɪəgnəʊz]	v	ставить диагноз, диагностировать
diagnosis	[ˌdaɪəgˈnəʊstɪs]	n	диагноз
diaphragm	[ˈdaɪəfræm]	n	диафрагма
die	[daɪ]	v	умирать, погибать
diet	[ˈdaɪət]	n	питание, пища, диета
dietary	[ˈdaɪət(ə)rɪ]	a	диетический
digastric	[daɪˈgæstrɪk]	a	двубрюшный
digest	[daɪˈdʒest]	v	переваривать, усваивать
digestion	[d(a)ɪˈdʒestʃ(ə)n]	n	пищеварение, переваривание
digestive	[d(a)ɪˈdʒestɪv]	a	пищеварительный

dilate	[daɪˈleɪt]	v	расширять (ся)
dilated	[daɪˈleɪtɪd]	a	распиренный
diminish	[dɪˈmɪnɪʃ]	v	уменьшать (ся), убавлять (ся); ослаблять
dimple	[ˈdɪmpl]	n	ямочка (на щеке, подбородке); впадина
diphtheria	[dɪfˈθɪ(ə)rɪə]	n	дифтерия, дифтерит
dirty	[ˈdɜːtɪ]	a	грязный
disarticulate	[,dɪsɑːˈtɪkjuːleɪt]	v	разъединять, расчленять
discharge	[dɪsˈtʃɑːdʒ]	v	выделять, разгружать; выписывать больного из больницы
discoloration	[dɪsˌkʌləˈreɪʃ(ə)n]	n	обесцвечивание
discoloured	[dɪsˈkʌləd]	a	обесцвеченный, измененного цвета
discomfort	[dɪsˈkʌmfəʊt]	n	неприятное самочувствие, недомогание
discrepancy	[dɪsˈkrep(ə)nsl]	n	расхождение, несоответствие
disease	[dɪˈziːz]	n	болезнь, заболевание
diseased	[dɪˈziːzd]	a	заболевший, пораженный, больной
disinfectant	[,dɪsɪnˈfektənt]	a	дезинфицирующее средство
disorder	[dɪsˈɔːdə]	n	беспорядок, расстройство, нарушение
dispensary	[dɪsˈpens(ə)rɪ]	n	амбулатория, аптека
disposal	[dɪsˈpɔːz(ə)l]	n	расположение, размещение
at one's --			в чем-либо распоряжении
dissect	[dɪˈsekt]	v	рассекать, вскрывать, анатомировать
dissolution	[,dɪsɔːluːʃ(ə)n]	n	растворение, разжижение
dissolve	[dɪˈzɒlv]	v	растворять (ся), разлагать (ся)
distance	[ˈdɪst(ə)ns]	n	расстояние, дистанция
distinct	[dɪsˈtɪŋkt]	a	отдельный, отличный (от др.); отчетливый
distinction	[dɪsˈtɪŋkʃ(ə)n]	n	различие, отличие; отличительная особенность
distinguish	[dɪsˈtɪŋɡwɪʃ]	v	различать (ся), отличать (ся)
distress	[dɪsˈtres]	n	озабоченность, огорчение, неприятность
distribute	[dɪsˈtrɪbjʊ(:)t]	v	распределять, разделять, распространять
distribution	[,dɪstrɪˈbjʊːʃ(ə)n]	n	распространение, распределение
district doctor	[ˈdɪstrɪkt ˈdɒktə]	n	участковый (районный) врач
disturb	[dɪsˈtɜːb]	v	нарушать, волновать, тревожить, мешать

disturbance	[dɪs'tɜ:b(ə)ns]	n	нарушение, беспокойство, расстройство
divide	[dɪ'vaɪd]	v	делить (ся); подразделять
divisible	[dɪ'vɪzəbl]	a	делимый
division	[dɪ'vɪʒ(ə)n]	n	деление; часть, раздел; отдел
do away with		v	уничтожать, разделаться с, ликвидировать
dome	[dəʊm]	n	купол, свод
donation	[dəʊ'neɪʃn]	n	дар; пожертвование
blood ~			сдача крови
double	['dʌbl]	a	двойной, сдвоенный, парный
		v	удваивать
doubt	[daʊt]	n, v	сомнение; сомневаться
downward	['daʊnwəd]	a	спускающийся, направленный вниз
downwards	['daʊnwədz]	adv	вниз, книзу
drainage	['dreɪnɪdʒ]	n	дренаж, дренирование
dressing	['dresɪŋ]	n	перевязка, повязка
drill	[drɪl]	v	сверлить, бурить
drop	[drɒp]	n	капля, падение
		v	капать, падать, уменьшаться
drug	[drʌg]	n	лекарство, медикамент; наркотик
dry	[draɪ]	a	сухой
duct	[dʌkt]	n	проток, канал, ход, проход, трубка
due	[dju:]	a	должный; обязанный; обусловленный
~ to			благодаря, вследствие
dull	[dʌl]	a	тупой (звук); тупая (боль)
duodenal	[ˌdju(:)ə'di:nəl]	a	дуоденальный
duodenal ulcer	[ˌdju(:)ə'di:nəl 'ʌlsə]	n	язва двенадцатиперстной кишки
duodenum	[ˌdju(:)ə'di:nəm]	n	двенадцатиперстная кишка
durable	['djʊərəbl]	a	прочный; длительный, долговременный
dye	[daɪ]	n, v	краска, краситель; окрашивать (ся)

Ee

ear	[ɪə]	n	ухо
economic	[ˌekə'nɒmɪk, ˌi:kə'nɒmɪk]		экономический, народнохозяйственный
economical	[ˌekə'nɒmɪk(ə)l, ˌi:kə'nɒmɪk(ə)l]		экономный, бережливый, экономичный

effect	[ɪ'fekt]	n	эффект, результат, следствие, воздействие, влияние
effective	[ɪ'fektɪv]	a	действующий (о дозе), эффективный, действенный
effectiveness	[ɪ'fektɪvnlɪs]	n	эффективность, действенность
elastic	[ɪ'læstɪk]	a	эластичный, гибкий, упругий
elasticity	[,i:(ə)læs'tɪsɪti]	n	эластичность, упругость, гибкость
electrocardiogram (ECG)	[ɪ.lektrəʊ'kɑ:dɪəgræm]		электрокардиограмма (ЭКГ)
elevate	['elɪveɪt]	v	поднимать, повышать
elevated	['elɪveɪtɪd]	a	возвышенный, приподнятый
elevation	[,elɪ'veɪʃ(ə)n]	n	поднятие, возвышение, бугорок
elevator	['elɪveɪtə]	n	поднимающая мышца
elicit	[ɪ'lɪsɪt]	v	вызывать, извлекать, выявлять; допытываться
eliminate	[ɪ'lɪmɪneɪt]	v	уничтожать, ликвидировать, выводить
elongate	[i:lɒŋgeɪt, 'elɒŋgeɪt]	v	растягивать (ся), удлинять(ся)
embed	[ɪm'bed]	v	вставлять, врезать, вделывать, внедрять
emerge	[ɪ'mɜ:dʒ]	v	появляться, выходить, возникать
emergency	[ɪ'mɜ:dʒ(ə)nsl]	n	крайняя необходимость; критическое положение
– department	[ɪ'mɜ:dʒ(ə)nsl dɪ'pɑ:mənt]		отделение неотложной помощи
eminence	['emɪnəns]	n	высота, возвышение
emphysema	[,emfɪ'si:mə]	n	эмфизема
enamel	[ɪ'næm(ə)l]	n	эмаль
encase	[ɪn'keɪs]	v	полностью закрывать, заключать
encourage	[ɪn'kʌrɪdʒ]	v	поощрять, поддерживать
engender	[ɪn'dʒendə]	v	порождать, вызывать
enlarge	[ɪn'lɑ:dʒ]	v	увеличивать (ся)
enquire	[ɪn'kwɪə]	v	(рас) спрашивать
ensure	[ɪn'ʃʊə]	v	гарантировать, обеспечивать
entire	[ɪn'taɪə]	a	весь, целый
environment	[ɪn'vaɪərənmənt]	n	окружающая среда (обстановка)
environmental	[ɪn'vaɪərən'mentl]	a	относящийся к окружающей среде
enzyme	['enzaɪm]	n	фермент, энзим
eosin	[i:əʊ(sɪ)n]	n	эозин; розово-красный
epidemiology	[epɪ'dɪ:mɪ'ɒlədʒɪ]	n	эпидемиология
epiglottis	[epɪ'glɒtɪs]	n	надгортанник
epithelium	[epɪ'θi:liəm]	n	эпителий
equal	[i:kwəl]	a	равный, одинаковый

equip	[ɪ'kwɪp]	v	оборудовать, снаряжать
equipment	[ɪ'kwɪpmənt]	n	оборудование, аппаратура, снаряжение
erupt	[ɪ'rʌpt]	v	прорезываться
eruption	[ɪ'rʌpʃ(ə)n]	n	прорезывание (зубов)
escape	[ɪ'skeɪp]	v	избежать, избавиться
esophagus	[ɪ'sɒləʒəs]	n	пищевод
essential	[ɪ'senʃ(ə)l]		существенный, необходимый
estimate	['estɪmeɪt], [estɪ'meɪt]	n	оценка, смета;
		v	оценивать
ethmoid	['eθmɔɪd]	a	решетчатый
evacuate	[ɪ'vækjʊeɪt]	v	удалять (пульпу зуба)
evacuation	[ɪ'vækjʊeɪʃ(ə)n]	n	удаление (пульпы зуба)
even	['i:vən]	a	ровный, гладкий
even out	['i:v(ə)n aʊt]		выравнивать (ся)
eventually	[ɪ'ventʃʊ(ə)li]	adv	в конечном счете; в конце концов
every now and then		adv	время от времени
evident	['evɪd(ə)nt]	a	очевидный, ясный
evolve	[ɪ'vɒlv]	v	развивать (ся); разворачивать (ся); разрабатывать
evulse	[ɪ'vʌls]	v	насильственно извлекать, вырывать с корнем
exactly	[ɪg'zæktli]	adv	точно, как раз
examination	[ɪg,zæmɪ'neɪʃ(ə)n]	n	обследование, осмотр, исследование
examine	[ɪg'zæmɪn]	v	обследовать, осматривать
excess	[ɪk'ses, 'ekses]	n	избыток, излишек
exclude	[ɪk'sklu:d]	v	исключить
excursion	[ɪk'skɜ:ʃ(ə)n]	n	движение, подвижность
exempt (from)	[ɪg'zempt]	a	свободный (от чего-то), пользующийся льготами
exist	[ɪg'zɪst]	v	существовать
expectation	[,ekspek'teɪʃ(ə)n]	n	ожидания, надежда
expensive	[ɪk'spensɪv]	a	дорогой (о стоимости)
exposed	[ɪk'spəʊzd]	a	незащищенный, оголенный (о тканях организма)
external	[ɪk'stɜ:n(ə)l]	a	наружный, внешний
extract	[ɪk'strækt]	v	экстрагировать, извлекать, удалять
extraction	[ɪk'strækʃn]	n	удаление (зуба); экстракция
extremely	[ɪk'stri:mli]	adv	чрезвычайно, крайне; очень
extremity	[ɪk'stremɪti]	n	конец, край; конечность
eye	[aɪ]	n	глаз
eyebrow	['aɪbrəʊ]	n	бровь
eyelid	['aɪlɪd]	n	веко

Ff

fabricate	[ˈfæbrɪkeɪt]	v	изготавливать
face	[feɪs]	n	лицо; поверхность; внешний вид
faceting	[ˈfæsi:tɪŋ]	n	огранка, шлифовка
facial	[ˈfeɪʃ(ə)l]	a	лицевой
facilitate	[fəˈsɪlɪteɪt]	v	облегчать, помогать, способствовать
facing	[ˈfeɪsɪŋ]	n	фасетка, верхний слой, покрытие
failure	[ˈfeɪljə]	n	неудача; недостаток
faint	[feɪnt]	a	слабый; неотчетливый; незначительный
fairly	[ˈfeəli]	adv	довольно; весьма
fall (fell, fallen) ill	[ˈfɔ:l ˈɪl]	v	заболеть
fall out	[ˈfɔ:l ˈaʊt]	n	выпадать
false	[ˈfɔ:ls]	a	искусственный
familiar	[fəˈmɪliə]	a	знакомый; привычный
famous	[ˈfeɪməs]	a	известный, знаменитый
fascia	[ˈfæʃɪə, feɪʃi:]	n	фасция, соединительная оболочка
fasten	[ˈfɑ:sn]	v	привязывать, прикреплять
fat	[fæt]	n	жир
fatal	[ˈfeɪtl]	a	смертельный, гибельный, пагубный
fatigue	[fəˈti:g]	n	утомляемость, слабость
fatty	[ˈfæti]	a	жирный, жировой
fauces	[ˈfɔ:si:z]	n	зев, горло, глотка, ротоглотка
fear	[fiə]	n	страх, боязнь
feature	[ˈfi:tʃə]	n	особенность, характерная черта; признак
fee	[fi:]	n	плата
feed	[fi:d]	v	кормить, давать пищу
feel (felt)	[fi:l]	v	чувствовать; опухивать; ощущать
feldspar	[ˈfeldspa:]	n	полевоы шпат
female	[ˈfi:meɪl]	n	женщина
		a	женский
ferment	[fɜ:ˈment]	n	фермент, энзим; брожение
fermentable	[fɜ:ˈmentəbəl]	a	сбраживаемый; поддающийся ферментации

fetid	[ˈfetɪd]	a	зловонный; плохо пахнувший
fetus	[ˈfi:təs]	n	плод, зародыш, эмбрион
fibre	[ˈfaɪbə]	n	волокно, нить, волосок
fibrinogen	[faɪˈbrɪnɒdʒən]	n	фибриноген
fibrous	[ˈfaɪbrəs]	a	фиброзный, волокнистый
fight	[faɪt]	n, v	битва, борьба; вести бой, сражаться
fill	[fɪl]	v	наполнять, заполнять; пломбировать
filling	[ˈfɪlɪŋ]	n	пломбирование; пломба; заполнение
put in a ~			поставить пломбу
film	[fɪlm]	n	пленка
find (found)	[faɪnd]	v	находить, обнаруживать
~ out			узнать
fine	[faɪn]	a	тонкий, мелкий; мелкозернистый; чистый; точный
finger	[ˈfɪŋɡə]	n	палец
first-aid	[ˌfɜːstˈeɪd]	n	первая помощь, скорая помощь
fissure	[ˈfɪʃə]	n	трещина, расщелина; щель; борозда
fistula	[ˈfɪstjələ]	n	свищ
fit	[fɪt]	a	здоровый в хорошей (физической) форме
~ for work			здоров и может (продолжать) работу; годный, подходящий, готовый;
		v	годиться, быть впору; пригонять; прилаживать
fix	[fɪks]	v	устанавливать; укреплять, закреплять
fixture	[ˈfɪkstʃə]		приспособление, неподвижно закрепленная деталь, имплантат
flat	[flæt]	n	плоскость
		a	плоский, ровный
flatten	[ˈflætn]	v	выравнивать; сплющивать
flexibility	[ˌfleksɪˈbɪləti]	n	гибкость, податливость
floor	[flɔː]	n	пол; дно; нижняя часть
floss	[flɒs]	n	нитка для чистки межзубных промежутков
flossing	[ˈflɒsɪŋ]	n	чистка нитью зубных промежутков

flow	[fləʊ]	n	течение; поток; струя;
		v	течь; литься, происходить
fluid	['flu:ɪd]	n	жидкость; жидкая среда
fluoride	['flʊ(ə)rətaɪd]	n	фтористое соединение, фторид
flux	[flʌks]	n	флюс, плавень
fold	[fəʊld]	n	складка; сгиб
follicle	['fɒlɪkl]	n	фолликул; сумка
follow	['fɒləʊ]	v	следовать за, следовать
food	[fu:d]	n	пища, еда
foramen	['fɔ:reɪmən]	n	отверстие; канал; проход
force	[fɔ:s]	n	сила
by ~			наильно (adv)
forehead	['fɔ:rhɛd, 'fɔ:hɛd]	n	лоб
foreign	['fɔ:rn]	a	иностранный; инородный
forerunner	['fɔ:ˌrʌnə]	n	предшественник; предвестник
fossa	['fɒsə]	n	ямка; впадина
fracture	['fræktʃə]	n, v	перелом, трещина; трескаться, давать трещину
fractured	['fræktʃəd]	a	переломанный, сломанный
framework	['freɪmwɜ:k]	n	остров, корпус, каркас
free	[fri:]	a	свободный; бесплатный
frenulum of the tongue	['frenjʊləm əv ðə'tʌŋ]	n	уздечка языка
frenum	['fri:nəm]	n	уздечка
frequency	['fri:kwənsɪ]	n	частота
frequent	['fri:kwənt]	a	частый, многократный
frequently	['fri:kwəntli]	adv	часто
friction	['frɪkʃ(ə)n]	n	трение; растирание; втирание
fundus	['fʌndəs]	n	дно (желудка) (в области входа)
furnish	['fɜ:nɪʃ]	v	снабжать, обеспечивать; обставлять
further	['fɜ:ðə]	a	дальнейший; дальше
fuse	[fju:z]	v	сплавлять (ся); сращивать (ся)

Gg

gall-bladder	['gɔ:l blædə]	n	желчный пузырь
ganglion	['gæŋglɪən]	n	скопление нервных клеток; нервный узел
gangrene	['gæŋgrɪ:n]	n	омертвление ткани; гниение; гангрена
ganrenous	['gæŋgrɪnəs]	a	омертвевающий; гангренозный

gap	[gæp]	n	брешь; промежуток; щель; интервал
gape	[geɪp]	v	зиять, зевать, широко разевать рот
gasserion	[gæsə'ri:ən 'gæŋglɪən]	n	гассеров полулунный узел тройничного нерва
ganglion			
gastric	['gæstri:k]	a	желудочный
gastric juice	['gæstri:k dʒu:s]	n	желудочный сок
gastroenteritis	[gæstrəʊ'entə'reɪtɪs]	n	воспаление желудка и кишечника, гастроэнтерит
gather	['gæðə]	v	собирать (ся); скопляться
genial	[dʒi'neɪəl]	a	подбородочный
geniohyoglossus	[dʒi:niə'haɪə'glɒsəs]	n	подбородочно-подъязычно-язычная (мышца)
geniohyoid	[dʒi:niə'haɪəɔɪd]	n	подбородочно-подъязычная мышца
germ	[dʒɜ:m]	n	микроб; зародыш
gingiva	[dʒɪn'dʒaɪvə]	n	десна
gingival	[dʒɪn'dʒaɪv(ə)l]	a	десенный; относящийся к десне
gingivitis	[dʒɪndʒɪ'vaɪtɪs]	n	воспаление десен
gland	[glænd]	n	железа
glenoid	['gli:nɔɪd]	a	мешковидный
glenoid cavity	['gli:nɔɪd 'kævɪtɪ]	n	суставная впадина (плечевого сустава)
glide	[glɑɪd]	n	скольжение
		v	скользить
globulin	['glɒbjʊlɪn]	n	глобулин
glucose	['glu:kəʊs]	n	глюкоза, виноградный сахар
glycerine	['glɪsərɪn]	n	глицерин
glycogenetic	[glɑɪkə'dʒɪ'netɪk]	a	гликогенный
goal	[gəʊl]	n	цель, задача
gold	[gəʊld]	n, a	золото, золотой
gooseberry	['gu:zbəri]	n	крыжовник
government	['gʌv(ə)nmənt]	n	правительство
granuloma	[grænju'ləʊmə]	n	гранулема
grind (ground)	[graɪnd]	v	молоть, дробить, истирать
groove	[gru:v]	n	желобок
grooved	[gru:vd]	a	бороздчатый, желобоватый
grow	[grəʊ]	v	расти; увеличиваться
(grew, grown)			
growth	[grəʊθ]	n	рост, развитие; новообразование (опухоль)
guidance	['gaɪd(ə)ns]	n	руководство, объяснение
guide	[gaɪd]	v, n	руководить; справочник, руководство
gullet	['gʌlɪt]	n	пищевод, глотка
gum	[gʌm]	n	десна
gumline	[gʌmlaɪn]	n	десневая линия
gustatory	['gʌstəɪ(ə)rɪ]	a	вкусовой

Hh

habit	[ˈhæbɪt]	n	привычка
hair	[heə]	n	волос, волосок, волосы
happen	[ˈhæpən]	v	случаться
harden	[ˈhɑːdn]	v	затвердевать, укреплять
harm	[hɑːm]	v, n	вредить, наносить вред; вред
harmful	[ˈhɑːmf(ə)l]	a	вредный, опасный
harmless	[ˈhɑːmlɪs]	a	безвредный
head	[hed]	n	голова; передняя часть
		v	возглавлять, вести
headache	[ˈhedeɪk]	n	головная боль
heal	[hi:l]	v	лечить, излечивать, исцелять; заживать
health	[helθ]		здоровье
public ~	[ˈpʌblɪk helθ]	n	здравоохранение
~ card	[ˈhelθ kɑːd]	n	лечебная карта
healthy	[ˈhelθi]	a	здоровый
heap	[hi:p]	v	нагромождать; накапливать
hear (heard)	[hiə]	v	слышать, слушать, внимать
heart	[hɑːt]	n	сердце
hematopoietic	[heˈma:təpəʊˈeɪtɪk]	a	см. hemopoietic
hematoxylin	[ˈhemetəkˈsɪlɪn]	n	гематоксилин; красящее вещество
hemopoietic	[ˈheməpəʊˈeɪtɪk]	a	кроветворный
hemorrhage	[ˈhem(ə)rɪdʒ]	n	кровотечение
hepatic	[hɪˈpæɪtɪk]	a	печеночный
hereditary	[hɪˈredɪt(ə)rɪ]		наследственный
hinged	[ˈhɪndʒd]	a	поворотный, вращающийся; членистый
histology	[hɪˈstɒlədʒɪ]	n	гистология
hole	[həʊl]	n	дыра; отверстие; углубление; яма
hollow	[ˈhɒləʊ]	a	полый, пустой, впалый
		n	впадина, душло
hormone	[ˈhɔːməʊn]	n	гормон
horseshoe-shaped	[ˈhɔːsʃuː ʃeɪpt]	a	подковообразный
however	[haʊevə]		однако, тем не менее
hurt	[hɜːt]	v	повреждать, ранить; болеть
hygiene	[ˈhaɪdʒiːn]	n	гигиена
hyoglossus	[haɪəgˈlɒsəs]	a	подъязычно-язычная (мышца)
hyoid	[ˈhaɪɔɪd]	n	подъязычная кость
hypertension	[ˌhaɪpɜːˈtenʃn]	n	гипертония, повышенное кровенное давление
hypodontia	[ˌhaɪpəˈdɒntɪə]	n	частичное отсутствие зубов вследствие нарушения их развития

identical	[aɪ'dentɪk(ə)l]	a	тот же самый, одинаковый, равнозначный
identify	[aɪ'dentɪfaɪ]		опознавать, отождествлять
idiosyncrasy	[ˌɪdɪ'ɒsɪŋkrəsi]	n	особая реакция; идиосинкразия
ileum	['ɪliəm]	n	подвздошная кишка
ill-defined	[ɪlɪ'daɪnd]	a	плохо выраженный; неотчетливый
illness	['ɪlnəs]	n	болезнь
image	['ɪmɪdʒ]	n	изображение
imagine	[ɪ'mædʒɪn]	v	представлять себе, догадываться
imbed=embed	[ɪm'bed]	v	вставлять, врезать, вделывать
immediately	[ɪ'mi:dɪətli]	adv	безотлагательно, тот час
immune	[ɪ'mju:n]	a	иммунный, невосприимчивый, обладающий иммунитетом
impact	['ɪmpækt]	n	удар, воздействие, эффект
implant	['ɪmplɑ:nt]	n	имплантат
imply	[ɪm'plaɪ]	v	подразумевать
importance	[ɪm'pɔ:təns]	n	значение, важность
impression	[ɪm'preʃən]	n	слепок, отпечаток
improper	[ɪm'prɒpə]	a	неподходящий, несоответствующий
improve	[ɪm'pru:v]	v	улучшать (ся); усовершенствовать
improvement	[ɪm'pru:vmənt]	n	улучшение; усовершенствование
inaccessible	[ˌɪnæksesəbl]	a	недоступный, неприступный
inadequate	[ɪn'ædɪkwɪt]	a	неадекватный, несоответствующий, недостаточный, нарушенный (о функции)
inborn	[ˌɪn'bɔ:n]	a	врожденный, природный
inch	[ɪntʃ]	n	дюйм
incidence	['ɪnsɪdəns]	n	число случаев; частота заболеваний

incision	[ɪn'siʒ(ə)n]	n	разрез, надрез, насечка
incisive	[ɪn'saɪsɪv]	a	режущий, острый; резовый
incisor	[ɪn'saɪzə]	n	резец
incoming	['ɪnkʌmɪŋ]	a	прибывающий; сменяющийся
incorporate	[ɪn'kɔ:pəreɪt]	v	соединять, объединять; включать
increase	[ɪn'kri:s]	v	увеличивать (ся), усиливать(ся)
increase	['ɪnkri:s]	n	возрастание, увеличение, рост
indented	[ɪn'dentɪd]	a	зубчатый, зазубренный
independent	[ɪn'dɪpəndənt]	a	независимый, самостоятельный
indicate	['ɪndɪkeɪt]	v	указывать, предписывать; означать; показывать
indicator	[ɪn'dɪ'keɪtə]		указатель
indirect	[ɪn'dɪ'rekt]	a	непрямой; косвенный; побочный
individual	[ɪn'dɪ'vɪdʒʊəl]	a	личный; отдельный
individuality	[ɪn'dɪ'vɪdʒʊ'æltɪtɪ]	n	индивидуальность
inevitable	['ɪnevɪtəbəl]	a	неизбежный, неминуемый
inexhaustible	[ɪnɪg'zɔ:stəbəl]	a	неистошимый, неисчерпаемый; неутомимый
infancy	['ɪnfənsɪ]	n	младенчество (до 3-х лет жизни)
infant	['ɪnfənt]	n	младенец, грудной ребенок
infect	[ɪn'fekt]	v	инфицировать, заражать
infection	[ɪn'fekʃ(ə)n]	n	инфекция, заражение
inferior	[ɪn'fɪ(ə)rɪə]	a	низший, нижний
inferiorly	[ɪn'fɪərɪəlɪ]	adv	внизу
inflamed	[ɪn'fleɪmd]	a	воспаленный
inflammation	[ɪn'fleɪməʃ(ə)n]	n	воспаление; воспламенение
influence	['ɪnflʊəns]	n	влияние, действие, воздействие
		v	влиять
infraorbital	[ɪn'frɔ:brɪtəl]	a	внутриглазничный
ingestion	[ɪn'dʒestʃ(ə)n]	n	прием внутрь, глотание, проглатывание
inhalation	[ɪn'hə'leɪʃ(ə)n]	n	вдыхание, ингаляция
inherit	[ɪn'herɪt]	v	унаследовать
inhibit	[ɪn'ɪbɪt]	v	подавлять, тормозить, препятствовать, задерживать
inhibitor	[ɪn'ɪbɪtə]	n	тормозящий фактор; замедлитель; вещество, замедляющее процесс
initial	['ɪnɪʃ(ə)l]	a	начальный, первоначальный
initiate	['ɪnɪʃɪeɪt]	v	вводить; начать, приступить
injection	[ɪn'dʒekʃ(ə)n]	n	впрыскивание, инъекция
injury	['ɪndʒəri]	n	рана, ушиб, повреждение, вред

inlay	[ˈɪnleɪ]	n	вкладка
inner	[ˈɪnə]	a	внутренний
inorganic	[ˌɪnɔːˈɡæniːk]	a	неорганический
insalivation	[ɪnˌsæɪlˈveɪʃn]	n	смачивание пищи слюной
insert	[ɪnˈsɜːt]	v	вставлять; помещать
inside	[ɪnˈsaɪd]	a	внутренний
		adv	внутри, внутрь
insidious	[ɪnˈsɪdiəs]	a	постепенный, протекающий без ясных симптомов
inspection	[ɪnˈspekʃ(ə)n]	n	осмотр
instance	[ˈɪnstəns]	n	пример, случай
in-standing teeth	[ˈɪnstændɪŋtiːθ]		зубы, выступающие назад (из общего ряда)
instant	[ˈɪnstənt]	a	мгновенный, незамедлительный
insulin	[ˈɪnsjʊlɪn]	n	инсулин
intake	[ˈɪnteɪk]	n	поглощение, прием внутрь; всасывание
integral	[ˈɪntɪgrəl]	a	целый, полный; неотъемлемый, существенный
intend	[ɪnˈtend]	v	намереваться; предназначать
intense	[ɪnˈtens]	a	сильный, интенсивный, напряженный
intention	[ɪnˈtenʃ(ə)n]	n	намерение; цель
interact	[ˈɪntərækt]	v	взаимодействовать
interarticular	[ˌɪntərəːˈtɪkjʊlə]	a	межсуставной
intercuspal (position)	[ˌɪntəˈkʌspəl]	a	в положении со сжатыми зубами
interdental	[ˌɪntəˈdentl]	a	межзубной, находящийся между зубами
interfere	[ˌɪntəˈfɪə]	v	вмешиваться
interference	[ˌɪntəˈfɪ(ə)rəns]	n	вмешательство; препятствие, помеха
interior	[ɪnˈtɪ(ə)rɪə]	n	внутренность
		a	внутренний
interlock	[ˌɪntəˈlɒk]	v	соединять (ся); сцеплять (ся); смыкаться
internal	[ɪnˈtɜːnl]	a	внутренний
intervention	[ˌɪntəˈvenʃ(ə)n]	n	вмешательство
intestinal	[ɪnˈtestɪnl]	a	кишечный
intestine	[ɪnˈtestɪn]	n	кишечник, кишки
small ~			тонкая кишка
large ~			толстая кишка
intraoral	[ˌɪntərəːrəl]	a	внутриротовой, находящийся внутри ротовой полости

intrinsic	[ɪn'trɪnstɪk, -zɪk]	a	присущий, свойственный, внутренний
introduce	[,ɪntrə'dju:s]	v	внедрять, вводить
invasion	[ɪn'veɪʒ(ə)n]	n	вторжение, инвазия, начало заболевания
invention	[ɪn'venʃ(ə)n]	n	изобретение, выдумка
invest	[ɪn'vest]	v	окутать, окружить
investigation	[ɪn'vestɪ'geɪʃ(ə)n]	n	обледование, исследование
invoke	[ɪn'vəʊk]	v	зывать, вызывать
involuntary	[ɪn'vɒl(ə)n(ə)rɪ]	a	непроизвольный
involve	[ɪn'vɒlv]	v	вовлекать, включать, поражать
involvement	[ɪn'vɒlvmənt]	n	поражение, вовлечение
inward	['ɪnwəd]	a, adv	внутренний; внутрь
iris	['aɪ(ə)rɪs]	n	радужная оболочка глаза
irregular	['ɪrɛgjulə]	a	неправильный, неравномерный
irregularity	[ɪ'regju'lærɪtɪ]	n	неправильность, неравномерность
irrespective	[,ɪrɪ'spektɪv]	a	независимо от, несмотря на
irritable	['ɪrɪtəb(ə)l]	a	раздражительный
irritate	['ɪrɪteɪt]	v	раздражать
irritation	[,ɪrɪ'teɪʃ(ə)n]	n	раздражение
item	['aɪtəm]	n	пункт, часть, вид, единица
ivory	['aɪv(ə)rɪ]	n, a	слоновая кость; состоящий или сделанный из слоновой кости, цвета слоновой кости

Jj

jaundice	['dʒɔ:ndɪs]	n	желтуха
jaw	[dʒɔ:]	n	челюсть
jawbone	['dʒɔ:bəʊn]	n	челюстная кость
jejunum	[dʒɪ'dʒu:nəm]	n	тошая кишка
jelly-like	['dʒelɪlək]	a	студенистый, желеобразный
join	[dʒɔɪn]	v	присоединяться, соединяться; вступать (в партию)
joint venture	[dʒɔɪnt 'ventʃə]		совместное предприятие
jointly	['dʒɔɪntli]	adv	совместно
judge	[dʒʌdʒ]	v	судить, считать, полагать
judgement	[dʒʌdʒmənt]		мнение, суждение
juice	[dʒu:s]	n	сок
junction	['dʒʌŋkʃ(ə)n]	n	соединение, место соединения
junction	['dʒʌŋktʃə]	n	соединение, место соединения

Кк

kidney	['kɪdnɪ]	n	(анат.) почка
knit (knitted, knit)	[nɪt]	v	соединять, скреплять; срастаться
knock out	['nɔk'ɔut]	v	выбивать

Лl

label	[ˈleɪb(ə)l]	n	ярлык, этикетка
labial	[ˈleɪbiəl]	a	губной
lack	[læk]	n, v	отсутствие, недостаток, нужда; не хватать, не доставать
lacrimal	[ˈlækri:m(ə)l]	a	слезный
lactic	[ˈlæktɪk]	a	молочный
– acid	[ˈlæktɪk ˈæsɪd]		молочная кислота
lactobacillus	[ˈlæktəbəˈsɪləs]	n	молочно-кислая палочка
laryngeal	[ləˈrɪndʒ(ə)l]	a	гортанный
larynx	[ˈlærɪŋks]	n	гортань
lateral	[ˈlæɪ(ə)rəl]	a	боковой, латеральный
latter, the	[ˈlætə]	pron	последний из упомянутых выше
law	[lɔ:]	n	закон, юриспруденция
layer	[ˈleɪə]	n	слой, пласт, наслоение
layman	[ˈleɪmən]	n	непрофессионал, неспециалист
lead	[led]	n	свинец
lead (led)	[li:d]	v	вести, приводить; возглавлять
leak	[li:k]	n, v	протечка; протекать, просачиваться
legal	[ˈli:g(ə)l]	a	законный, юридический
length	[lengθ]	n	длина
lesion	[ˈli:ʒ(ə)n]	n	поражение (ткани, органа), повреждение
less	[les]	adv	меньше
let	[let]	v	позволять
level	[ˈlev(ə)l]	n	уровень; ступень
		v	выравнивать; сглаживать
life-span	[ˈlaɪfspæn]	n	продолжительность жизни
ligament	[ˈlɪgəmənt]	n	связка
like	[laɪk]	prep, v	подобный, похожий, как; нравиться, любить
likelihood	[ˈlaɪklɪhʊd]	n	вероятность
limb	[lɪm]	n	конечность
line	[laɪn]	n, v	линия; выстилать

lingual	[ˈlɪŋgwəl]	a	язычный
lining	[ˈlaɪnɪŋ]	n	(внутренняя) оболочка, выстилка
lip	[lɪp]	n	губа
list	[lɪst]	n, v	список, перечислять
listen	[ˈlɪs(ə)n]	v	слушать; выслушивать
lively	[ˈlaɪvli]	a, adv	оживленный, оживленно
liver	[ˈlɪvə]	n	печень
lobule	[ˈlɒbjʊ:l]	n	долька
local	[ˈləʊkl]	a	местный, локальный
long-term	[ˈlɒŋtɜ:m]	a	долгосрочный
loop	[lu:p]	n	петля; завязывать петлю
loose	[lu:s]	a	свободный, нетугой, неприкрепленный, шатающийся, неплотный, рыхлый
loosen	[ˈlu:s(ə)n]	v	ослаблять (ся), отпустить, распатывать (ся)
lose (lost)	[lu:z]	v	терять (ся); лишаться
loss	[lɒs]	n	потеря, убыток
loupe	[lu:p]	n	лупа
lower	[ˈləʊə]	a	нижний
lubricant	[ˈlu:bɪkənt]	n	смазочный материал; смазка
lull	[lʌl]	v	уговаривать, успокаивать
lumbar	[ˈlʌmbə]	a	поясничный
lung	[lʌŋ]	n	(анат.) легкое
lymphatic vessel	[lɪmˈfættɪk ˈvesl]	n	лимфатический сосуд

Mm

magnification	[ˌmæɡnɪfɪˈkeɪʃn]	n	увеличение
maintain	[meɪnteɪn]	v	поддерживать, сохранять, содержать, обслуживать
maintenance	[ˈmeɪnt(ə)nəns]	n	поддержка; содержание (в должном виде)
major	[ˈmeɪdʒə]	a	большой, главный, крупный
majority	[məˈdʒɔrɪti]	n	большинство
malar	[ˈmeɪlə]	a	скуловой
male	[ˈmeɪl]	a	мужской
		n	мужчина
malformed	[ˌmælfɔ:md]	a	неправильно сформированный
malignant	[məˈlɪgnənt]	a	злокачественный
malocclusion	[ˌmæləʊklu:ʒn]	n	неправильный прикус
malposition	[ˌmælpəzɪʃn]	n	неправильное положение

manage	[ˈmænidʒ]	v	справляться, управлять, лечить
management	[ˈmænidʒmənt]	n	управление, заведывание, администрация, умение справиться (напр. с болезнью), лечение
mandible	[ˈmændəb(ə)l]	n	нижняя челюсть
mandibular	[mænˈdɪbjʊlə]	a	нижнечелюстной
manual	[ˈmænjʊəl]	a	ручной, мануальный
manually	[ˈmænjʊəlɪ]	adv	вручную
margin	[ˈmɑːdʒɪn]	n	край, грань
marginal	[ˈmɑːdʒɪnl]	a	краевой, маргинальный
mark	[mɑːk]	n, v	метка, знак, рубец; отмечать, метить; поставить отметку
marrow	[ˈmærəʊ]	n	костный мозг
marvellous	[ˈmɑːv(ə)ləs]	a	изумительный, удивительный
mask	[ˈmɑːsk]	v	маскировать, делать незаметным
masseter (muscle)	[ˈmæsɪtə]	n	жевательная мышца; массетер
masticating	[ˌmæstɪˈkeɪtɪŋ]	a	жевательный
mastication	[ˌmæstɪˈkeɪʃ(ə)n]	n	жевание
mastoid	[ˈmæstɔɪd]	a	сосцевидный; сосцевидный отросток
matter	[ˈmætə]	n	вещество, материал; сущность, дело
what is the matter with you?			что с вами?
maxilla	[mæksɪlə]	n	верхняя челюсть
maxillary	[mæksɪləri]	a	челюстной, верхнечелюстной
maxillary sinus	[mæksɪləri ˈsaɪnəs]	n	гайморова пазуха
maxim	[ˈmæksɪm]	n	краткое изречение, афоризм
meal	[mi:l]	n, v	прием пищи, еда; принимать пищу; есть, кормить
measure	[ˈmeʒə]	n	мера; мероприятие
		v	измерять, мерить
medial	[ˈmiːdiəl]	a	средний; срединный
median	[ˈmiːdiən]	a	срединный
medication	[ˌmedɪˈkeɪʃn]		лекарство, лекарственная терапия
medicine	[ˈmedɪsɪn]	n	медицина, терапия; лекарство, медикамент
medullary	[mɪˈdʌləri]	a	мозговой; относящийся к продолговатому мозгу
medullary canal	[mɪˈdʌləri kəˈnæl]	n	полость в центральной нервной системе
membrane	[ˈmembreɪn]	n	оболочка, пленка, перепонка, мембрана

meningeal	[mə'nɪndʒəl]	a	относящийся к мозговым оболочкам
meniscus	[mɪ'nɪskəs]	n	мениск
mental	[mentl]	a	подбородочный
mention	['menʃn]	n	упоминание, ссылка (на)
		v	упоминать, ссылаться
mercury	['mɜ:kjʊrɪ]	n	ртуть; ртутный препарат;
(hydrargyrum – Hg)	[haɪ'drɑ:dʒɪ'rəm]		ртутный столб
merely	['mɪəli]	adv	просто, всего лишь
mesh	[meʃ]	n	петля, ячейка сети
metabolism	[mə'tæbəlaɪzəm]	n	метаболизм, обмен веществ
metabolite	[mə'tæbəlaɪt]	n	продукт обмена веществ; метаболит
microbiology	[,maɪkrə(ɪ)baɪ'ɒlədʒɪ]	n	микробиология
microorganism	[,maɪkrə(ɪ)'ɔ:ɡənɪzəm]	n	микроорганизм, микроб
middle	[mɪdl]	n	середина
		a	средний
midline	['mɪdlaɪn]	n	средняя линия
midway	[,mɪdweɪ]	adv	посередине
mild	[maɪld]	a	легкий (о форме заболевания), мягкий, слабый
minor	['maɪnə]	a	незначительный, малый
misaligned	[mɪs'alaɪnd]	a	неровный (о ряде), неправильно расположенный, несоосный
miss	[mɪs]	n, v	отсутствие, промах; пропустить, упустить, не доставать, промахнуться; скучать
missing	['mɪsɪŋ]	a	недостающий, отсутствующий
mix	[mɪks]	v	смешивать, перемешивать
mixture	['mɪkstʃə]	n	микстура, смесь
mobility	[məʊbɪlɪti]	n	подвижность; изменчивость
moderate	['mɒd(ə)rɪt]	a	умеренный, средний
modify	['mɒdɪfaɪ]	v	видоизменять
moisten	['mɔɪst(ə)n]	v	увлажнять; смачивать
molar	['məʊlə]	n	моляр, большой коренной зуб
molecule	['mɒlɪkjʊ:l]	n	молекула
monitor	['mɒnɪtə]	v	вести (длительные) наблюдения, контролировать
moreover	[mə:'rɔ:və]	adv	более того, кроме того
mortality	[mə:'tælɪti]	n	смертность; летальность
mortification	[mə:tlɪ'keɪʃ(ə)n]	n	омертвление, гниение; гангрена, некроз

mouth	[maʊθ]	n	рот, отверстие
mouthrinse	['mauθrɪns]	n	жидкость для полоскания рта
mouthwash	['mauθwɒʃ]	n	жидкость для полоскания рта
movable	['mu:vəb(ə)l]	a	подвижный
move	[mu:v]	v	двигаться, передвигаться, приводить в движение
movement	['mu:vmənt]	n	движение, продвижение
mucin	['nju:stɪn]	n	муцин, слизистый секрет
mucosa	[mj'kəʊzə]	n	слизистая оболочка
mucous	['nju:kəs]	a	слизистый, мукозный
mucus	['nju:kəs]	n	слизь
multiple	['mʌltɪpl]	a	множественный
muscle	['mʌs(ə)l]	n	мышца, мускул
muscular	['mʌskjʊlə]	a	мышечный, мускульный
mustard plaster	['mʌstəd'plɑ:stə]	n	горчичник
mylohyoid	['maɪləhaɪ'ɔɪd]	a	челюстно-подъязычный

Nn

naked	['neɪkɪd]	n	обнаженный, оголенный
narrow	['nærəʊ]	a	узкий, тесный
		v	суживать (ся)
nasal	['neɪz(ə)l]	a	носовой
natural	['nætʃərəl]	a	естественный, натуральный
naturally	['nætʃərəli]	adv	естественно, свободно, легко
nearly	['niəli]	adv	близко; почти; приблизительно
necessary	['nesɪs(ə)rɪ]	a	необходимый
neck	[nek]	n	шея; шейка зуба
necrosis	[nɪ'krɔ:stɪs]	n	некроз, омертвление
necrotic	[nɪ'krɒtɪk]	a	омертвевший, некротический
need	[ni:d]	n, v	нужда, нуждаться
needle	[ni:dəl]	n	игла
neglect	[nɪ'glegkt]	n	пренебрежение; небрежность
		v	пренебрегать, запускать
neighbourhood	['neɪbəhʊd]	n	соседство, близость
nerve	[nɜ:v]	n	нерв
nervous	['nɜ:vəs]	a	нервный
network	['netwɜ:k]	n	сеть, сетка
node	['nɔ:ð]	n	узел, утолщение, припухлость
nostril	['nɒstrɪl]	n	ноздря
notable	['nəʊtəb(ə)l]	a	выдающийся, заметный, значительный
notch	[nɒtʃ]	n	выемка, вырезка
noticeable	['nəʊtɪsəb(ə)l]	a	заметный, приметный
nourish	['nʌrɪʃ]	v	питать, кормить
number	['nʌmbə]	n	номер; число, количество;
		v	насчитывать, нумеровать
a ~ of			ряд
numerous	['nju:m(ə)rəs]	a	многочисленный
nurse	[nɜ:s]	n	мед. сестра; сиделка; няня
nutrition	[nju:'trɪʃ(ə)n]	n	питание, пища
nutritive	['nju:trɪtɪv]	a	пищевой, питательный

Oo

obligation	[əblɪ'geɪʃn]	n	обязательство
oblique	[ə'bli:k]	a	косой, наклонный
oblong	[ˈɒblɒŋ]	a	продолговатый, удлинённый
observation	[.ɒbzə'veɪʃ(ə)n]	n	наблюдение
to keep under ~			держатъ под наблюдением
observe	[əb'zɜ:v]	v	соблюдать; наблюдать; замечать
obstetrician	[.ɒbstɪ'triʃ(ə)n]	n	акушер
occasional	[ə'keɪʒənəl]	a	редкий, случайный, случаю- щийся время от времени
occlusion	[ək'lu:ʒn]	n	окклюзия, прикус
occupation	[əkju'peɪʃn]	n	занятие, профессия
occur	[ə'kɜ:]	v	случаться, происходить
oculist	[ˈɒkjʊlɪst]	n	окулист
odontoblast	[ˌɔːdɒntə'blɑ:st]	n	клетка, образующая зуб
odor=odour	[ˈɔ:də]	n	запах, аромат; привкус; обоняние
oedema	[ɪ'di:mə]	n	отек
oesophagus	[i:'sɒfəgəs]	n	пищевод
offer	[ˈɒfə]	n	предложение (реальной помощи), предложить
olfactory	[ɒl'fækt(ə)rɪ]	a	обонятельный
once	[ˈwʌns]	adv	однажды, один раз; как только
opening	[ˌɔːp(ə)nɪŋ]	n	отверстие, щель
operate	[ˈɒpəreɪt]	v	оперировать
operation	[.ɒpə'reɪʃ(ə)n]	n	операция
operative	[ˈɒpə'reɪtɪv]	a	действующий, оперативный, операционный

ophthalmic	[ɒf'θælmɪk]	a	глазной
opinion	[ə'pɪnjən]	n	мнение
oppose	[ə'pəʊz]	v	противопоставлять
opposite	['ɒpəzɪt]	a	противоположный, обратный
		adv	напротив, против
option	['ɒpʃn]	n	выбор
oral	['ɔ:rəl]	a	ротовой, стоматический
orbit	['ɔ:bit]	n	глазная впадина; глазница
orbital	['ɔ:bit(ə)l]	a	глазничный
order	['ɔ:də]	n	порядок
in ~ to			для того чтобы
organic matter	[ɔ:'gæntɪk 'mætiə]	n	органическое вещество
orifice	['ɔ:rɪfɪs]	n	отверстие; проход
orthodontics	[ɔ:θə'dɒntɪks]	n	ортодонтия
osseous	['ɒsiəs]	a	костный; костистый
ossification	[.ɒsɪfɪ'keɪʃ(ə)n]	n	образование костного вещества; окостенение, превращение в кость
osteoblast	['ɒstiə(ʊ)blæst]	n	клетка, образующая кость; остеобласт
osteomyelitis	[.ɒstiəmaɪə'laitɪs]	n	остеомиелит
ostium	['ɒstiəm]	n	вход; устье; отверстие
outer	['aʊtə]	a	внешний, наружный
outlet	['aʊlet]	n	выход, выпуск, выпускное отверстие
outline	['aʊtaɪn]	v	описать, обрисовать, изложить вкратце
output	['aʊtpʊt]	n	продукция
outside	['aʊtsaɪd]	adv	снаружи, извне, наружу; наружная (внешняя) сторона
outstanding	[aʊt'stændɪŋ]	a	выдающийся; знаменитый; выступающий (над чем-л.)
out-standing teeth	[aʊt'stændɪŋ ti:θ]	n	зубы, выступающие вперед из общего ряда
oval-shaped	['əʊvəl'ʃeɪpt]	a	овальной формы
overall	['əʊvəɔ:l]	adv	всего, в целом
overbite	[əʊvə'bɪt]	n	глубокий прикус (верхние резцы перекрывают нижние)
overcrowded teeth	[əʊvə'kraʊdɪd ti:θ]	n	скученные зубы
overjet	[əʊvə'dʒet]	n	перекрытие верхних зубов нижними (ортогения)
overlap	['əʊvələp]	v	частично покрывать; перекрывать
overlook	['əʊvəlʊk]	v	возвышаться (над местностью); смотреть сверху (на что-л.); упустить (что-л.) из виду
owe	[əʊ]	v	быть должным, быть обязанным
own	[əʊn]	a	собственный, оригинальный; владеть
oxygen	['ɒksɪdʒ(ə)n]	n	кислород

pain	[peɪn]	n	боль, страдание
		v	причинять боль
painful	['peɪnf(ə)l]	a	болезненный, мучительный
painless	['peɪnli:s]	a	безболезненный
palatal	['pælətəl]	a	небный
palate	['pæltɪt]	n	небо
palatine	['pælətəɪn]	a	небный
pancreas	['pænkriəs]	n	поджелудочная железа
pancreatic	['pænkri'æti:k]	a	панкреатический
papilla	[pə'pɪlə]	n	бугорок, сосочек
parietal	[pə'ri:ətəl]	a	пристеночный, пристенный
parotid	[pə'rəʊtɪd]	a	околоушный
partial	[pɑ:ʃiəl]	a	частичный, неполный
particular	[pə'tɪkjʊlə]	a	особенный, придирчивый
pass	[pɑ:s]	n, v	проход, путь; проходить (мимо, через)
passage	['pæstɪdʒ]	n	прохождение, проход, переход
paste	[peɪst]	n	паста
		v	склеивать; намазывать
patch	[pætʃ]	n	пятно, бляшка, лоскут, заплата
		v	покрываться пятнами, сшивать, собирать, латать
patient	['peɪʃ(ə)nt]	n	пациент, больной
in-patient			стационарный больной,
			госпитальный больной
out-patient			амбулаторный больной,
			приходящий больной
at a patient's bedside			у постели больного
pause	[pɔ:z]	n, v	пауза, сделать паузу
pay	[peɪ]	v	платить
pear-shaped	['peəʃeɪpt]	a	грушевидный

peg-shaped	[ˈpegʃeɪpt]	a	клинообразный
pelvis	[ˈpelvɪs]	n	(анат.) таз
penetrate	[ˈpenɪtreɪt]	v	проникать внутрь; пронизывать; пропитывать
penetration	[ˌpenɪˈtreɪʃ(ə)n]	n	проникновение; проницаемость
percussion	[pəˈkʌʃn]	n	перкуссия, постукивание
perforate	[ˈpɜːf(ə)reɪt]	v	просверливать, пробуривать
perforated	[ˈpɜːfəreɪtɪd]	a	перфорированный, просверленный
perforation	[ˌpɜːɪəˈreɪʃ(ə)n]	n	прободение, просверливание
perform	[pəˈfɔːm]	v	выполнять, делать, осуществлять
periapical	[ˈperɪˈæpɪk(ə)l]	a	околоверхушечный
periodont (ium)	[ˌperɪˈɔːdɒnt, -ɪəm]	n	периодонт, околозубная ткань
periodontal	[ˌperɪˈɔːdɒntəl]	a	пародонтальный
periodontics	[ˌperɪˈɔːdɒntɪks]	n	пародонтология
periodontist	[ˌperɪˈɔːdɒntɪst]	n	пародонтолог
periodontitis	[ˌperɪˈɔːdɒnˈtaɪtɪs]	n	пародонтит, пародонтоз, периоцементит
periosteum	[ˌperɪˈɒstiəm]	n	надкостница
periradicular	[ˌperɪˈreɪdɪkjʊlə]	a	перирадикулярный, околокорневой
peristalsis	[ˌperɪˈstælsɪs]	n	перистальтика
peritoneum	[ˌperɪtəˈniːəm]	n	брюшина
permanent	[ˈpɜːmənənt]	a	постоянный, долговременный
persistent	[pəˈsɪstənt]	a	упорный, настойчивый
petrous	[ˈpetrəs, ˈpiːtrəs]	a	окаменевший, каменистый
pharmacology	[ˌfɑːməˈkɒlədʒɪ]	n	фармакология
pharynx	[ˈfærɪŋks]	n	глотка, зев
phase	[feɪz]	n	фаза; стадия
phobia	[ˈfəʊbiə]	n	страх, боязнь
phosphorus	[ˈfɒsf(ə)rəs]	n	фосфор
physical	[ˈfɪzɪk(ə)l]	a	физический, телесный
physician	[ˈfɪzɪʃ(ə)n]	n	врач
physics	[ˈfɪzɪks]	n	физика
physiology	[ˌfɪzɪˈɒlədʒɪ]	n	физиология
piecemeal	[ˈpiːsmiːl]	adv	по частям, постепенно
pierce	[pɪəs]	v	протыкать, прокалывать; пронизывать
pill	[pɪl]	n	таблетка
placement	[ˈpleɪsmənt]	n	размещение, расположение

plane	[pleɪn]	n	плоскость
		a	плоский, плоскостный
plaque	[plɑ:k]	n	налет, бляшка, пятно сыпи
plaster	['plɑ:stə]	n	пластырь
plastic	['plæstɪk]	n, a	пластмасса, пластический, пластичный
plate	[pleɪt]	n	пластинка, лист, плита
plexus	['pleksəs]	n	сплетение (нервов и т.п)
point	[pɔɪnt]	n	точка, пункт
poison	['pɔɪz(ə)n]	n	яд, отрава
		a	ядовитый, отравляющий
		v	отравлять
poisoning	['pɔɪz(ə)nɪŋ]	n	отравление
polish	['pɒlɪʃ]	v	полировать, шлифовать
poor	[pʊə]	a	бедный; скудный; тощий; плохой
population	[ˌpɒpjʊ'eɪʃn]	n	население, популяция
porcelain	['pɔ:slɪn]	n, a	фарфор, фарфоровый
porpoise	['pɔ:pəs]	a	пористый, позреватый, пронизываемый
portal	['pɔ:tl]	a	относящийся к воротной вене; воротный
portion	['pɔ:ʃ(ə)n]	n	часть, доля
pose	[pəʊz]	n, v	поза, позировать, представлять (собой)
position	[pə'zɪʃ(ə)n]	n	положение, место, расположение
posterior	[pə'stɪərɪə]	a	задний
potassium	[pə'tæsləm]	n	калий
pouch	[pəʊtʃ]	n	мешок, карман, дивертикул
pour	[pɔ:]	v	лить (ся); вливать (ся)
powder	['paʊdə]	n	порошок, пудра
practitioner (dental)	[præk'tɪʃənə]	n	практикующий врач-стоматолог
general –			врач общей практики
precede	[pri'si:d]	v	предшествовать
predispose	[ˌpri:di'spəʊz]	v	предрасполагать, склонять
predominant	[prɪ'dɒmɪnənt]	a	преобладающий, господствующий
predominantly	[prɪ'dɒmɪnəntli]	adv	в основном; главным образом
prefer	[pri'fɜ:]	v	предпочитать
pregnancy	['pregnənsɪ]	n	беременность
pregnant	['pregnənt]	a	беременная

preliminary	[prɪ'lɪmɪnəri]	a	предварительный
premature	['preɪmətʃə]	a	преждевременный, поспешный
prematurely	['preɪmətʃəli]	adv	преждевременно, поспешно
premolar	[,pri:'mɔ:lə]	n	премоляр
pre-natal	[,pri:'neɪtl]	a	предродовой
pressure	['preʃə]	n	давление, сжатие
pretend	[prɪ'tend]	v	притворяться, симулировать, претендовать (на)
prevent	[prɪ'vent]	v	предотвращать, предупреждать
preventable	[prɪ'ventəbl]	a	предупреждаемый, предотвратимый
preventive	[prɪ'ventɪv]	a	профилактический
previous	['pri:vjəs]	a	предшествующий
prime	[praɪm]	a	первоначальный, главный, превосходный
prior (to)	['praɪə (tə)]	adv	перед тем (как)
private	['praɪvət]	a	частный, личный
probe	['prəʊb]	n, v	зонд; зондировать
procedure	[prə'si:dʒə]	n	процедура; методика; ход анализа
proceed (from)	[prə'si:d]	v	исходить из, руководствоваться
process	['prəʊses]	n	процесс; отросток (анат.)
produce	[prə'dju:s]	v	производить, вызывать, продуцировать
profession	[prə'feʃn]	n	профессия
prohibit	[prə'hɪbɪt]	v	запрещать
project	['prɒdʒekt]	v	выдаваться, выступать
prolong	[prə'lɒŋ]	v	продлевать, продолжать
prolonged	[prə'lɒŋd]	a	затянувшийся, длительный
prominence	['prɒmɪnəns]	n	выступ, выпуклость, возвышение
prominent	['prɒmɪnənt]	a	выдающийся; выступающий; выпуклый; отчетливый
promote	[prə'məʊt]	v	способствовать, помогать, поддерживать; выдвигать, продвигать
prompt	[prɒmpt]	a	быстрый, немедленный
prone	[prəʊn]	a	лежащий ничком, распростертый; склонный

pronounced	[prə'naʊnst]	a	резко выраженный; ясный, явный
proper	['prɒpə]	a	подобающий, уместный, правильный
property	['prɒpəti]	n	свойство, качество
prophylaxis	[ˌprɒfɪ'læksɪs]	n	профилактика
prosthesis	['prɒsθɪsɪs]	n	протез
prosthetic	[prɒs'thetɪk]	a	протезный
prosthodontics	[ˌprɒsθɒ'dɒntɪks]	n	ортопедия
prosthodontist	[ˌprɒsθɒ'dɒntɪst]	n	стоматолог-ортопед
protect	[prə'tekt]	v	защищать
protein	['prəʊti:n]	n	белок
protrude	[prə'tru:d]	v	высовываться вперед, выступать
provide	[prə'vaɪd]	n	запасать (ся); снабжать, обеспечивать
psychiatrist	[saɪ'kaɪətrɪst]	n	психиатр
pterygoid	[tɪ'rɪɡɔɪd]	a	крыловидный
pull	[pʊl]	v	выдергивать, вытаскивать, тащить
pulp	[pʌlp]	n	пульпа
pulpitis	[pʌl'paɪtɪs]	n	пульпит, воспаление пульпы
purpose	['pɜ:pəs]	n	цель
pursue	[pɜ'sju:]	v	преследовать, добиваться
pus	[pʌs]	n	гной
pyorrhea	[ˌpaɪə'rɪə]	n	пиорея
pyramid	['pɪrəmɪd]	n	пирамида

Qq

quadrangular	[kwɒ'dræŋɡələ, -gʊlə]	a	четырёхугольный
quadrant	['kwɒdrənt]	n	квадрат, четверть круга, сектор
qualified	['kwɒlɪfaɪd]	a	опытный, квалифицированный
quality	['kwɒlɪti]	n	качество
quantity	['kwɒntɪti]	n	количество
quarter	['kwɔ:tə]	n	четверть, квартал
quartz	[kwɔ:ts]	n	кварц
quiet	['kwaɪət]	a	спокойный, тихий, бесшумный
quite	[kwɑɪt]	adv	вполне, совершенно, совсем, полностью, всецело

Rr

radically	[ˈrædɪk(ə)li]	adv	коренным образом
radicle	[ˈrædɪk(ə)l]	n	корешок
radicular	[ˌræˈdɪkʃ(ə)lə]	a	корешковый
radiograph	[ˈreɪdɪə(ɡ)rɑ:f]	n	рентгеновский снимок, рентгенограмма
		v	делать рентгеновский снимок
raise	[reɪz]	v	поднимать
ramus, rami	[ˈreɪməs], [reɪmaɪ]	n	ветвь, ветви
range	[reɪndʒ]	n, v	ряд, предел, область; колебаться (в каких-то пределах)
rapid (ly)	[ˈræpɪd(lɪ)]	a, adv	быстрый, быстро
rare	[reə]	a	редкий
rate	[reɪt]	n	частота, скорость, степень
pulse ~			частота пульса
death ~			смертность
ratio	[ˈreɪʃ(ə)ʊ]	n	отношение, коэффициент, пропорция, соотношение
rather than	[ˈrɑ:ðə ðæn]		а не...
ray	[reɪ]	n	луч
		v	излучать
reach	[ri:tʃ]	v	достигать, простирается, доходить до
readily	[ˈredɪli]	adv	охотно, быстро, легко, с готовностью
realization	[ˌri:əlaɪzeɪʃ(ə)n]	n	осуществление, выполнение, понимание, реализация
reason (for)	[ˈri:z(ə)n]	n	причина, основание (для)
reasonable	[ˈri:z(ə)nəb(ə)l]	a	разумный, резонный
recall (visit)	[rɪˈkɔ:l]	n	повторное (посещение)
recently	[ˈri:s(ə)ntli]	adv	недавно, в последнее время
receptive	[rɪˈseptɪv]	a	восприимчивый
recover	[rɪˈkʌvə]	v	выздоровливать
recovery	[rɪˈkʌv(ə)rɪ]	v	выздоровление, восстановление
rectum	[ˈrektəm]	n	прямая кишка
reduce	[rɪˈdju:s]	v	уменьшать, сокращать
reduction	[rɪˈdʌkʃ(ə)n]	n	снижение, сокращение; превращение, изменение формы или состояния

refer	[rɪ'fɜː]	v	ссылаться на что-либо, передавать, направлять
refer (to)	[rɪ'fɜː]		отсылать, направлять, ссылаться (на); направить (к другому врачу)
reference	['ref(ə)rəns]	n	упоминание, ссылка, справка
referral	[rɪ'fɜːrəl]	n	направление, обращение за помощью
refined	[rɪ'faɪnd]	a	очищенный, рафинированный (о пище)
reflect	[rɪ'flekt]	v	отражать (ся)
reflex	['riːfleks]	n	рефлекс
reflexion=reflection	[rɪ'fleksɪ(ə)n]	n	рефлекторный, произвольный отражение
regular	['regjʊlə]	a	правильный, обычный, регулярный
reinforce	[riːn'fɔːs]	v	усилить
rejection	[rɪ'dʒekʃ(ə)n]	n	отторжение
relate	[rɪ'leɪt]	v	относиться, иметь отношение
relationship	[rɪ'leɪʃ(ə)nʃɪp]	n	взаимоотношение, отношение, соотношение
relative (ly)	['relatɪv(lɪ)]	a, adv	относительный, сравнительный, взаимосвязанный; относительно, сравнительно, довольно
relevance	['relɪv(ə)ns]	n	уместность, значимость, важность
relevant	['relɪv(ə)nt]	a	уместный, относящийся к делу
relieve	[rɪ'liːv]	v	облегчать, уменьшать, ослаблять
remain	[rɪ'meɪn]	v	оставаться
remaining	[rɪ'meɪnɪŋ]	a	оставшийся
remains	[rɪ'meɪnz]	n	остаток, остатки
remedy	['remɪdɪ]	n	лекарство, лечебное средство
remnant	['remnənt]	n	остаток, отрезок
removal	[rɪ'muːv(ə)l]	n	удаление, устранение
remove	[rɪ'muːv]	v	удалять, убирать, уносить, передвигать
renew	[rɪ'njuː]	v	обновлять, восстанавливать, возобновлять
repair	[rɪ'peə]	n, v	ремонт, восстановление, заживление, восстанавливать, исправлять, чинить

replace	[rɪˈpleɪs]	v	замещать, заменять
replacement	[rɪˈpleɪsmənt]	n	замена, смена; замещение
replicate	['replɪkət]	v	создать копию, скопировать
require	[rɪˈkwaɪə]	v	требовать чего-то, нуждаться в чем-л.
requirement	[rɪˈkwaɪəmənt]	n	требование, потребность
research	[rɪˈsɜːtʃ]	n	исследование; исследовательский
resemble	[rɪˈzemb(ə)l]	v	иметь сходство; походить
reshape	ˌriːˈʃeɪp]	v	изменить форму
resin	['rezɪn]	n	смола, канифоль, пластмасса
resist	[rɪˈzɪst]	v	сопротивляться, противодействовать, противостоять, не поддаваться
resistance	[rɪˈzɪstəns]	n	сопротивление, сопротивляемость
resorption	[rɪˈsɔːpʃ(ə)n]	n	рассасывание
respiratory	[rɪˈspɪrət(ə)rɪ]	a	дыхательный
respire	[rɪˈspaɪə]	v	дышать
respond	[rɪˈspɒnd]	v	отвечать, реагировать
response	[rɪˈspɒns]	n	ответ, реакция
responsibility	[rɪˈspɒnsəbɪlətɪ]	n	ответственность
restoration	ˌrestəˈreɪʃ(ə)n]	n	реставрация, восстановление
restore	[rɪˈstɔː]	v	восстанавливать (здоровье)
restriction	[rɪˈstrɪkʃ(ə)n]	n	ограничение
result	[rɪˈzʌlt]		результат
~ from	[rɪˈzʌlt frɒm]		происходить в результате, быть следствием
~ in	[rɪˈzʌlt ɪn]		заканчиваться, приводить к чему-л.
~ on	[rɪˈzʌlt ɒn]		приводить к (в результате)
retrude	[riːˈtruːd]	v	смещаться (кзад)
reversibility	[rɪˈvɜːsəbɪlətɪ]	n	обратимость, возможность отмены
reversible	[rɪˈvɜːsəb(ə)l]	a	обратимый, двухсторонний, реверсивный, поворотный
rheumatic fever	[ruːˈmætɪk fiːvə]	n	ревматизм
rhomboidal	[rɒmˈbɔɪdɪ]	a	ромбовидный
rib	[rɪb]	n	ребро
rich	[rɪtʃ]	a	богатый
ridge	[rɪdʒ]	n	гребень, край, кромка
rigid	['rɪdʒɪd]	a	неподатливый, жестокий, неподвижный
rinse	[rɪns]	v	полоскать, промывать

rise	[raɪz]	n	повышение, подъем, увеличение, рост
rise (rose, risen)	[raɪz]	v	подниматься, вставать, возвышаться
to give ~ to			вызвать, давать начало чему-л.
roll	[rɔːl]	v	катить (ся); вертеть (ся); вращать (ся); свертывать (ся)
root	[ruːt]	n	корень
rotary	['rɔːt(ə)rɪ]	a	вращающийся (ся); вращательный
rough	[rʌʃ]	a	грубый; неровный; шероховатый
round	[raʊnd]	a	круглый, круговой;
		n	круг, цикл; вокруг;
		v	огигать; округлять (ся)
routine	[ruː'tiːn]	n	заведенный порядок, установившаяся практика
row	[rəʊ]	n	ряд

Ss

sac	[sæk]	n	мешочек; киста, мешок
sacrifice	['sækrɪfɪs]	n, v	жертва, жертвовать
safe	[seɪf]	a	безопасный
safeguard	['seɪfɡɑːd]	v	охранять, гарантировать
salary	['sæləri]	n	жалованье, зарплата
saliva	[sə'laɪvə]	n	слюна
salivary	[sə'laɪv(ə)rɪ]	a	слюнный
salt	[sɔːlt]	n	соль
		a	соленый;
		v	солить
satisfaction	[sætɪs'fæksj(ə)n]	n	удовлетворение
save	[seɪv]	v	спасать
scale	[skeɪl]	n	чешуя; камень (на зубах);
		v	скоблить, чистить, удалять зубной камень
scar	[skɑː]	n	шрам, рубец, царапина
scarcely	['skeəslɪ]	adv	едва, едва ли
science	['saɪəns]	n	наука
scientific	[saɪən'tɪfɪk]	a	научный
scientist	['saɪəntɪst]	a	ученый
screening	['skriːnɪŋ]	n	рентгенологическое исследование; экранирование
scrupulous	['skruːpjʊləs]	a	добросовестный, щепетильный, тщательный

seal	[si:l]	v	герметизировать, запечатать
sebaceous	[si'beisəs]	a	жировой, салыный
secondary	['sekənd(ə)ri]	a	вторичный, второстепенный
secrete	[si'kri:t]	v	выделять, секретировать, отделять
secretion	[si'kri:ʃ(ə)n]	n	выделение, секреция
secretional	[si'kri:ʃ(ə)n(ə)l]	a	выделительный
secretory	[si'kri:t(ə)ri]	a	выделительный, секреторный
sedative	['sedətiv]	n, a	успокаивающее средство, успокоительный, болеутоляющий
seek (sought)	[si:k]	v	искать
seem	[si:m]	v	казаться
semi-oval	[semi'əʊvəl]	a	полуовальный
senior	['si:nɪə]	a	старший
sensation	[sen'seɪʃ(ə)n]	a	ощущение, чувство
sense	[sens]	n	чувство, ощущение, сознание
sensitive	['sensitiv]	a	чувствительный, уязвимый
sensory	['sens(ə)ri]	a	чувствительный, афферентный
separate	['sep(ə)ri:t]	a	отдельный, особый
separation	[sepə'reɪʃ(ə)n]	v	отделять (ся); разделять (ся)
sequela	[si'kwɪ:lə]	n	разделение, отделение
sequence	['si:kwəns]	n	последствие, осложнение, остаточное явление
serious	['si(ə)riəs]	n	последовательность, порядок действий
serous	['si(ə)rəs]	a	серьезный; важный; опасный
serum	['si(ə)rəm]	a	серозный
serve	[sɜ:v]	n	сыворотка
service	['sɜ:vɪs]	v	служить, обслуживать
medical ~		n	служба, обслуживание
set	[set]	n	медицинское обслуживание
severe	[si'viə]	n	ряд, комплект, серия, группа, смена (зубов);
shallow	['ʃæləʊ]	v	ставить
shape	[ʃeɪp]	a	резкий, сильный, жесткий; суровый, строгий
shaped	[ʃeɪpt]	a	мелкий, поверхностный, неглубокий
		n	форма, образ; создавать
		v	формировать
		a	имеющий форму

sharp	[ʃɑ:p]	a	острый, резкий (о боли), тонкий (о зрении, слухе)
shed (shed)	[ʃed]	v	ронять, терять
sheet	[ʃi:t]	n	лист, список, рекомендация, памятка
shell	[ʃel]	n	скорлупа, шелуха; оболочка, корка; остов, каркас
shift	[ʃift]	v	перемещаться, сдвигаться; меняться
shortly	[ˈʃɔ:tlɪ]	adv	вскоре, в скором времени
sick	[sɪk]	a	больной
sick-benefit	[ˈsɪk.benɪfɪt]	n	пособие по болезни
sickness	[ˈsɪknɪs]	n	болезнь; тошнота
side	[saɪd]	n	сторона, бок; край
sight	[saɪt]	n	зрение; взгляд; вид; зрелище
sign	[saɪn]	n	симптом, признак болезни
similar	[ˈsɪmlə]	a	подобный, одинаковый
simplistic	[sɪmˈplɪstɪk]	a	упрощенный
since	[sɪns]	сj, prp	с тех пор как, так как, поскольку с, со, после с тех пор, после (того), тому назад
sinus	[ˈsaɪnəs]	n	изгиб, отклонение; пазуха; синус; каверна, свищ
sinusoid	[ˈsaɪnəsɔɪd]	n	синусоида
size	[saɪz]		размер
skeleton	[ˈskelɪtɪn]	n	скелет, костяк, остов, каркас
skill	[skɪl]	n	искусство, мастерство, умение, ловкость
skin	[skɪn]	n	кожа; наружный слой; оболочка
skull	[skʌl]	n	череп
slave	[sleɪv]	n	раб, невольник, жертва
slit	[slɪt]	n	длинный разрез; щель
slope	[sleɪp]	v	клониться; склоняться; скашивать, срезывать
slowly	[ˈsləʊli]	adv	медленно
smell	[smel]	n	обоняние, запах
smoke	[sməʊk]	n, v	дым, курение; дымить, коптить, курить, окуривать
smooth	[smu:ð]	a	гладкий, ровный

socket	['sɒkɪt]	n	впадина; углубление; ячейка
sodium	['səʊdiəm]	n	сода
soft	[sɒft]	a	мягкий
soften	['sɒft(ə)n]	v	смягчать (ся)
solid	['sɒlɪd]	a	твердый; твердое тело
soluble	['sɒljʊb(ə)l]	a	растворимый
solution	[sə'lu:ʃ(ə)n]	n	раствор; решение; разрешение; объяснение
sore	[sɔ:]	a	больной, воспаленный
sound	[saʊnd]	n	звук, шум;
		v	выслушивать; выстукивать (больного); звучать, издавать звук;
		a	здоровый, крепкий; прочный; сильный
sour	['saʊə]	a	кислый
source	[sɔ:s]	n	источник
space	[speɪs]	n	пространство, место, промежуток
space maintainer	['speɪs meɪn'teɪnə]	n	ортодентическая шинка
speciality	[speʃi'ælɪti]	n	специальность, отличитель- ная черта, специализация
spectacles	['spektəkl(ə)lz]	n	очки
speech	[spi:tʃ]	n	речь
sphenoid bone	['sfɪnɔɪd 'boʊn]	n	основная кость, клиновидная кость
sphenomaxillary	[sfɪnɔɪ'mæksɪləɪ]	a	основно-челюстной
sphenopalatine	[sfɪnɔɪ'pæləti:n]	a	основно-небный
sphere	[sfɪə]	n	сфера, шар, круг
spherical	['sfɪərɪkl]	a	сферический, шарообразный
sphincter	['sfɪŋktə]	n	сфинктер
spinal	['spɑɪnəl]	a	спинной
spinal column	['spɑɪnəl 'kɒləm]		позвоночный столб
spine	[spɑɪn]	n	позвоночник
spleen	[spli:n]	n	селезенка
spongy	['spɒŋdʒɪ]	a	губчатый; пористый; ноздреватый
spontaneous	[spɒn'teɪniəs]	a	самопроизвольный, стихийный, спонтанный
spread (spread)	[spred]	v	простирается, распространяться

to be ~ apart			располагаться порознь
squamous	['skweɪməs]	a	чешуйчатый, чешуистый
staff	[stɑ:f]	n, a	штат служащих; служебный персонал; штатный;
		v	укомплектовать штаты; обеспечивать персоналом
stage	[steɪdʒ]	n	стадия, этап
stagnation	[stæ'ɡneɪʃ(ə)n]	n	прекращение движения; застой
stain	[steɪn]		пятно, краситель, краска
stainless	['steɪnltəs]		нержавеющий (о стали)
starch	[stɑ:ʃ]	n	крахмал
starchy	['stɑ:ʃɪ]	a	крахмальный, крахмалистый
status	['steɪtəs]		статус, состояние
steady	['stedɪ]		прочный, устойчивый, стабильный
steel	[sti:l]		сталь, стальная
step	[step]		шаг, ступень
stick	[stɪk]		палка, трость
sticky	['stɪki]		липкий, клейкий
stimulate	['stɪmjʊleɪt]	v	возбуждать, побуждать; ускорять
stimulation	[ˌstɪmjʊ'leɪʃ(ə)n]	n	раздражение; возбуждение
stimulus	['stɪmjʊləs]	v	раздражитель; возбудитель, стимул, раздражение
stock	[stɒk]	n	род, семья, раса
stomach	['stʌmək]	n	желудок
stomatitis	[ˌstɒmə'taɪtɪs]	n	стоматит, воспаление слизистой оболочки полости рта
stomatologist	[ˌstɒmə'tɒlədʒɪst]	n	стоматолог
stomatology	[ˌstɒmə'tɒlədʒɪ]	n	стоматология
straight	[streɪt]	a	прямой, ровный
straighten	['streɪtn]	v	выпрямлять
straightforward	[ˌstreɪt'fɔ:wəd]	a	прямой, открытый, простой
stroke	[strɔ:k]	n	удар, толчок
strong	[strɒŋ]	a	сильный, здоровый, крепкий
structure	['strʌktʃə]	n	структура, строение, конструкция, устройство
stubborn	['stʌbən]	a	упорный, неподатливый; не поддающийся лечению
stylohyoid	[ˌstajlə'haɪɔɪd]	a	шило-подъязычная (мышца)
styloid	['stajlɔɪd]	a	шиловидный

stylomastoid foramen	[ˈstɑɪləˈmæstɔɪd fɔːreɪmən]		шило-сосцевидное отверстие
subgingival	[ˈsʌbdʒɪnˈdʒaɪv(ə)l]	a	поддесневой
subject	[ˈsʌbdʒɪkt]	n	тема, предмет
sublingual	[sʌbˈlɪŋgwəl]	a	подъязычный
submandibular	[sʌbmæˈnɪdɪbjʊlə]	a	подчелюстной
submaxillary	[sʌbˈmæksɪləri]	a	подчелюстной
submucous	[sʌbˈmju:kəs]	a	подслизистый
subsequent	[ˈsʌbsɪkwənt]	a	последующий
substance	[ˈsʌbstəns]	n	вещество, материя, сущность, субстанция
substantial	[sʌbˈstæɪnʃ(ə)l]	a	значительный, существенный
sucrose	[ˈs(j)u:kroʊs]	n	сахароза, тростниковый сахар
suffer	[ˈsʌfə]	v	страдать, испытывать, претерпевать; болеть
sugar	[ˈʃʊɡə]	n	сахар
sugary	[ˈʃʊg(ə)ri]	a	сахарный, сладкий
suit	[s(j)u:t]	v	годиться, соответствовать, подходить, быть удобным
sulci, sulcus	[ˈsʌlsɑɪ, ˈsʌlkəs]	n	(анатомические) бороздки
suleus	[ˈsʌlkəs]	n	борозда
summit	[ˈsʌmɪt]	n	вершина, верх
sunlight	[ˈsʌnlaɪt]	n	солнечный свет
superficial	[s(j)u:pəˈʃiʃ(ə)l]	a	поверхностный; неглубокий; внешний
superior	[s(j)u:ˈpi(ə)riə]	a	высший, верхний
superiorly	[s(j)u:ˈpi(ə)riəlɪ]	adv	вверху, сверху
supply	[sʌˈplaɪ]	n, v	запас, снабжение, снабжать, питать
support	[sʌˈpɔ:t]	v, n	поддерживать, поддержка
surface	[ˈsɜ:fɪs]	n	поверхность
facial –			лицевая поверхность
surgeon	[ˈsɜ:dʒ(ə)n]	n	хирург
surgery	[ˈsɜ:dʒ(ə)ri]	n	хирургия; приемная врача (кабинет врача)
surmount	[sʌˈmaʊnt]	v	увенчивать; преодолевать
survey	[sʌˈveɪ]	n, v	обозрение, осмотр, обзор, обследование; обозревать, рассматривать, исследовать, обследовать, инспектировать
survive	[sʌˈvaɪv]	v	остаться в живых, выжить

susceptibility	[səseptəbɪlɪtɪ]	n	восприимчивость, подверженность
suspect	[sʌs'pekt]	v, a	подозревать, предполагать, допускать; подозрительный
suture	['su:tʃə]	n	шов; место соединения; материал для шва;
		v	зашивать; накладывать шов
swallow	['swɒləʊ]	n	глоток; глотать, проглатывать
sweet	[swi:t]	a	сладкий, свежий
swell	[swel]	v	опухать, отекать
(swole, swollen)			
swelling	['swelɪŋ]	v	опухоль, опухающий, набухающий
symmetrical	[sɪ'metrɪkl]	a	симметричный, симметрический
sympathetic	[sɪmpə'tetɪk]	a	симпатический
symphysis	['sɪmfɪsɪs]	n	сращение
symptom	['sɪmptəm]	n	симптом
syringe	['sɪrɪndʒ]	n	шприц
Tt			
tail	[teɪl]	n	хвост; задняя часть
take care of smb.			смотреть за кем-л.; заботиться о ком-л.
tape	[teɪp]	n	магнитофонная кассета, запись на магнитной ленте
taste	[teɪst]	n, v	вкус; пробовать, иметь вкус
- bud			вкусовая почка, вкусовой сосочек
team	[ti:m]	n	бригада, группа, команда
tear (tore, torn)	[tiə]	v	рвать, разрывать; рваться, изнашиваться
technique	[tek'ni:k]	n	метод, методика
temple	['temp(ə)l]	n	висок
temporal	['temp(ə)rəl]	a	височный; временный, преходящий
temporarily	['temp(ə)rərɪli]	adv	временно
temporary	['temp(ə)rəri]	a	временный
temporofacial	[ˌtempərə'feɪʃəl]	a	височно-лицевой

temporomandibular	[ˈtemp(ə)rəmænˈdɪbjʊlə]	a	височно-нижнечелюстной
– joint			височно-нижнечелюстной сустав
temptation	[tempˈtetʃ(ə)n]	n	соблазн
tend	[tend]	n	иметь тенденцию, склонность к чему-либо
tender	[ˈtendə]	a	мягкий, слабый (о здоровье)
tenderness	[ˈtendənɪs]	n	болезненность
tension	[ˈtenʃ(ə)n]	n	напряжение
test	[test]	n	тест, проба, анализ
tetanus	[ˈtet(ə)nəs]	n	столбняк
texture	[ˈtekstʃə]	n	строение, структура
that's (that is) why			вот почему
the same		pron	тот же самый, одинаковый, такой же
therapeutic	[θerəˈpjʊ:tɪk]	a	лечебный, терапевтический
therapeutics	[θerəˈpjʊ:tɪks]	n	терапия, лечение
therapist	[θerəˈpjʊ:tɪst]	n	терапевт
therapy	[ˈθerəpi]	n	терапия, лечение
therefore	[ˈðeəfɔ:]	adv	поэтому, следовательно
thermal	[ˈθɜ:m(ə)]	a	тепловой, термический; горячий
thick	[θɪk]	a	толстый, густой, плотный
thicken	[ˈθɪkən]	v	уплотнять (ся); утолщать (ся); сгущать (ся)
thickness	[ˈθɪkɪnɪs]	n	толщина, плотность
thin	[θɪn]	a	тонкий, худой
thoracic	[θɔ:ˈræstɪk]	a	грудной
thorax	[ˈθɔ:ræks]	n	грудная клетка
thorough	[ˈθʌrə]	a	тщательный, основательный, законченный, полный
thoroughly	[ˈθʌrəli]	adv	тщательно
though	[ðəʊ]	adv	хотя
throat	[θrəʊt]	n	горло, гортань, глотка
throughout	[θru:ˈaʊt]	adv	повсюду, везде, полностью, все время; через, по всей длине, площади и т.п., все время
throw into	[θrəʊ ɪntə]	v	приводить в определенное состояние
thumb-print	[θʌmprɪnt]	n	отпечаток большого пальца
thyroid	[ˈθaɪrɔɪd]	n	щитовидная железа
tint	[tɪnt]	v	тонировать
tip	[tɪp]	n	кончик; конец; верхушка
tissue	[ˈtɪʃu:, ˈtɪʃju:]	n	ткань

titanium	[t(a)'teɪnjəm]	n	титан, титановый
tongue	[tʌŋ]	n	язык
tonsil	['tɒns(ə)l]	n	миндалики; миндалевидная железа
tonsillitis	[ˌtɒnsɪ'laɪtɪs]	n	воспаление миндалин; тонзиллит
tooth	[tu:θ]	n	зуб
toothache	['tu:θeɪk]	n	зубная боль
toothbrush	['tu:θbrʌʃ]	n	зубная щетка
toothbrushing	['tu:θbrʌʃɪŋ]	n	чистка зубов щеткой
toothpaste	['tu:θpeɪst]	n	зубная паста
top	[tɒp]	n	вершина; верхушка; крышка; поверхность
translucency	[trænz'lu:s(ə)nsɪ]	n	полу-прозрачность
translucent	[trænz'lu:s(ə)nt]	a	полу-прозрачный, просвечивающий
transparent	[trænz'speərənt]	a	прозрачный
transplant	['trænsplɑ:nt]	v	пересевать, пересаживать; делать пересадку
transversal	[trænz'vɜ:s(ə)l]	a	поперечный, косой; наклонный
trap	[træp]	v	ловить, поймать (в ловушку)
trauma	['trɔ:mə]	n	повреждение, рана, травма
traumatic	[trɔ:'mæʊtɪk]	a	травматический
traverse	['trævɜ:s]	v	пересекать
treat	[tri:t]	v	лечить; обращаться; угощать; трактовать
treatment	['tri:tmənt]	n	лечение; обращение; обработка
triangle	['traɪəŋɡ(ə)l]	n	треугольник
triangular	[traɪ'æŋɡjʊlə]	a	треугольный; трехгранный
tricky	['trɪki]	a	искусный, ненадежный, сложный, запутанный, хитрый
trifacial nerve	[traɪ'feɪʃ(ə)l nɜ:v]	n	тройничный нерв
trigeminal neuralgia	[traɪ'dʒemɪn(ə)l nɜ:'rældʒə]	n	воспаление тройничного нерва
trouble	['trʌb(ə)l]	n	повреждение, расстройство, болезнь, недуг, страдание
troublesome	['trʌb(ə)ls(ə)m]	a	беспокойный, трудный, мучительный
trunk	[trʌŋk]	n	туловище; ствол
trust	[trʌst]	n	доверие
try	[traɪ]	v	пробовать, стараться
tubercle	['tju:bək(ə)l]	n	бугорок

tuberculosis	[tju: ,bəkjʊ'leɪsɪs]	n	туберкулез
tuberosity	[,tju:bə'ri:stɪ]	n	бугристость, бугорок, узелок
tuition	[tju:'tʃ(ə)n]	n	обучение
tumour	['tju:mə]	n	опухоль, новообразование, вздутие
turbinate	['tɜ:bɪnɪt]	n	носовая раковина
turn into	['tɜ:n 'ɪntə]		превращаться
twofold	['tu:fəʊld]	a	двойной, удвоенный;
		adv	вдвое, вдвойне
tympanic	[ɪm'pæntɪk]	a	относящийся к барабанной перепонке
type	[taɪp]		тип, разновидность, модель, образец, род, класс, группа
typhoid	['taɪfɔɪd]	n	брюшной тиф; тифозный
typhoid fever	['taɪfɔɪd 'fi:və]	n	брюшной тиф

Uu

ulcer	['ʌlsə]	n	язва
ulcerating	[ʌlsə'reɪtɪŋ]	n	язвенный стоматит
stomatitis	[stə'mə'taɪtɪs]		
ultimately	['ʌltɪmɪtli]	adv	в конечном итоге, в конце
ultrasonic	[,ʌltrə'sɒnɪk]	a	ультразвуковой, сверхзвуковой
unchecked	[,ʌn'tʃekt]	a	непроверенный, несдержанный
underlie (underlay, underlain)	['ʌndəlaɪ]	v	лежать в основании
underlying	[,ʌndə'laɪɪŋ]	a	лежащий или расположенный под
undermine	[,ʌndə'maɪn]	v	разрушать, подрывать (здоровье)
underneath	[,ʌndə'ni:t]	adv	вниз, внизу, ниже; под
undertake	[,ʌndə'teɪk]	v	предпринимать, сделать что-либо
undesirable	[,ʌndɪ'zɑɪ(ə)rəb(ə)l]	a	нежелательный
undue	[,ʌn'dju:]	a	неподходящий; чрезмерный
undulate	['ʌndʒʊl(e)ɪt]	a	волнистый, волнообразный; быть волнистым; быть холмистым
uneven	[ʌn'i:v(ə)n]	a	неровный, шероховатый; нечеткий
unfavourable	[ʌn'feɪv(ə)rəb(ə)l]		неблагоприятный

unfit	[ʌn'fi:t]	a	непригодный, неподходящий
unfortunately	[ʌn'fɔ:tʃnɪtli]		к несчастью, к сожалению
unjustified	[ʌn'dʒʌstɪfaɪd]		неоправданный, необоснованный
unpleasant	[ʌn'plez(ə)nt]		неприятный
upper	['ʌpə]		верхний
urban	['ɜ:bən]		городской
urea	['jʊ(ə)rɪə]	n	мочевина
urgent	['ɜ:dʒ(ə)nt]	a	срочный, настоятельный
use	[ju:s]	v	употреблять, пользоваться, применять; использовать
		n	употребление, применение; использование
used to (do)	[ju:st]	v	обычно (делать что-л.) (в прошлом)
useful	['ju:sf(ə)l]		полезный, пригодный
usual	['ju:ʒʊəl, 'ju:ʒ(ə)l]	a	обычный
usually	['ju:ʒʊəlɪ, 'ju:ʒ(ə)lɪ]	adv	обычно, обыкновенно
uvula	['ju:vjʊlə]	n	язычок

Vv

vaccination	[væksɪ'neɪʃ(ə)n]	n	прививка оспы; вакцинация
vaccine	['væksɪ:n]	n	вакцина
valuable	['væljʊ(ə)b(ə)l]		ценный
various	['ve(ə)rɪəs]		разный, различный
vary	['ve(ə)rɪ]		изменяться, варьировать
varying	['ve(ə)rɪŋ]		переменный
vascular	['væskjʊlə]	n	сосудистый
vein	[veɪn]	n	вена, жила
veneer	[vi'niə]		винир, коронка с фарфоровой покрывной фасеткой
ventricle	['ventrɪk(ə)l]	n	желудочек
vertical	['vɜ:tɪk(ə)l]	a	вертикальный; отвесный
vessel	['ves(ə)l]	n	сосуд
viability	[vaɪə'bɪlɪtɪ]	n	жизнеспособность
vigilance	['vɪdʒɪləns]	n	настороженность, осторожность, бессонница
villus	['vɪləs]	n	ворсинки
viscera	['vɪsərə]	n	внутренности; внутренние органы
visceral	['vɪs(ə)rəl]	a	относящийся к внутренностям
vital	['vaɪtl]	a	жизненный, насущный, существенный
vitality	[vaɪ'tælɪtɪ]	n	жизнеспособность
vitamin	['vɪtəmɪn]	n	витамин
volume	['vɒljʊ:m]	n	объем
voluntary	['vɒlənt(ə)rɪ]	a	произвольный; добровольный
vomer	['vɒmə]	n	сошник

Ww

warning	[ˈwɔːnɪŋ]	n	предостережение; предупреждающий, предусмотрительный
washcloth	[ˈwɒʃklɒθ]	n	салфетка из махровой ткани
waste product	[weɪst ˈprɒdʌkt]	n	продукт распада
wear	[weə]	v	носить (одежду), изнашивать (ся); износ
welfare	[ˈwelfeə]	n	благополучие, благополучие
well-being	[ˌwelˈbiːɪŋ]	n	здоровье, благополучие, процветание
whole	[həʊl]	a	целый, полный, весь
willingness	[ˈwɪlɪŋnɪs]	n	желание
wipe	[waɪp]	v	вытирать, обтирать
wisdom tooth	[ˈwɪzdəmtuːθ]	n	зуб мудрости
wound	[wuːnd]	n	рана;
		v	ранить

Xx

x-ray	[ˈeksreɪ]	n, v	рентген; делать рентген
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Yy

yellow fever	[ˌjeləʊˈfiːvə]	n	желтая лихорадка, тропическая лихорадка
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Zz