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Т.П. Щедрина, С.А. Агафонова, В.А. Бессонова

Тексты по медицине:

чтение, перевод, реферирование и обсуждение



Т.П. Щедрина, С.А. Агафонова, В.А. Бессонова

ТЕКСТЫ ПО МЕДИЦИНЕ:

ЧТЕНИЕ, ПЕРЕВОД, РЕФЕРИРОВАНИЕ И ОБСУЖДЕНИЕ

Под редакцией канд. филол. наук, проф. Т. П. Щедриной

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кафедра иностранных языков Московского государственного медико-стоматологического университета (зав. кафедрой проф. *Л.Ю. Берзегова*)

канд. филол. наук, доц. *М.Н. Алексеева* (Российский новый университет)

Щедрина Т.П.

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Цель пособия — формирование навыков чтения, перевода на русский язык, реферирования оригинальных англоязычных медицинских текстов и развитие навыков обсуждения их содержания на английском языке.

Пособие включает научно-популярные тексты из британской и американской периодической печати и задания к ним.

Книга является частью учебного комплекса, включающего также: «Учебник английского языка для студентов медицинских вузов» (колл. авторов под ред. Т.П. Щедриной), «Английский язык в медицине» (автор — Т.П. Щедрина), «Обсуждаем проблемы медицины» (автор — Т.П. Щедрина).

Для студентов и аспирантов медицинских вузов, а также специалистов в области медицины, изучающих английский язык.

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ПРЕДИСЛОВИЕ

Предлагаемое учебное пособие предназначено для студснтов и аспирантов высших медицинских учреждений, врачей и научных работников в области медицины, которым необходимы навыки и умения чтения, перевода на русский язык и реферирования аутентичной англоязычной литературы по специальности. Предполагается, что пользующиеся пособием владеют основами английского языка и общемедицинской терминологией и нуждаются в цикле занятий, обеспечивающих освоение основных элементов техники чтения, перевода и реферирования.

Методический аппарат пособия

В основе разработки учебного пособия лежит ряд концептуальных положений, соответствующих требованиям современной методики преподавания иностранных языков.

Прежде всего авторы сочли наиболее эффективным построение учебного пособия на основе текстов публицистического жанра как отвечающих основным задачам учебного процесса в условиях высшей медицинской школы, который в первую очередь ориентирован на подготовку к работе с научной и справочной медицинской литературой. В научно-популярных текстах, как известно, предлагаются образцы использования грамматических конструкций, характерных для научных статей. Они построены на общелитературной лексике, свойственной стилю научной и справочной литературы, содержат наиболее употребительную общемедицинскую лексику, необходимую в любой узкой специальности. Встречающиеся в этих текстах словосочетания, более соответствующие разговорному жанру, могут быть использованы преподавателем как примеры, контрастирующие с научным стилем и, тем самым, высветляющие особенности последнего, а также для тренировки в контекстуальной адаптации словарных значений слов, так как такие фразы, как правило, отличаются высокой образностью. Кроме того, научно-популярные тексты доступны для понимания обучающихся, представляющих различные специальности и уровни знания медицины.

Первая и вторая части пособия включают научно-популярные статьи, кратко излагающие суть проблемы. Вместе с тем, пользователю предлагаются задания по их реферированию, предполагающему дальнейшее сокращение исходного материала. Такая работа правомерна, поскольку реферирование следует рассматривать не только как сокращение текста, но и как измененис порядка изложения информации. В учебных целях на начальном этапе работы над реферированием, как нам представляется, целесообразно использовать короткие тексты, содержание которых предъявляется в компактной форме и легче осознается в целом и по отдельным его аспектам, а предложения более короткие и нетребуют существенных изменений в процессе их компрессии.

Авторами предпринята попытка провести комплексное обучение нескольким видам речевой деятельности: чтению, переводу, письменному и устному реферированию. Возможность такой учебной работы заложена в специфике этих видов речевой деятельности, обеспечивающей их взаимосвязь и взаимозависимость. Так, функциональное чтение предполагает выявление общего

содержание текста и фактов, наиболее интересных читателю. Адекватный перевод основывается на четком представлении об общем содержании и стиле текста. Полное владение всеми нюансами содержания текста, достигнутое в процессе перевода, составляет основу для его реферативной обработки. Именно такая цепочка действий при работе с текстом предусматривается в комплексах упражнений пособия.

Структура пособия

Пособие состоит из четырех частей, каждая из которых имеет свое учебнометодическое назначение.

Первая часть предусматривает практику чтения, формирование навыков перевода грамматических конструкций, типичных для научных статей, и адаптации лексических и грамматических значений к контексту, а также овладение техникой перераспределения информации текста в реферативном формате, компрессии предложений и лексического оформления смысловых связей между фрагментами информации в реферативном тексте.

Вторая часть предназначена для практики использования навыков, сформированных в первой части пособия, но в заданиях, предполагающих более высокую степень самостоятельности обучающихся.

В третьей части предлагаются более длинные тексты, что усложняет работу по анализу и перегруппировке информации и приближает обучающихся к реальным условиям работы с информационными материалами. Кроме того, упражнения этой части предусматривают более глубокий лексико-грамматический анализ текста, предлагают расширенный набор стандартных фраз, используемых в рефератах.

Четвертая часть дает возможность использовать умения и навыки, приобретенные в процессе работы с материалами первых трех частей пособия, при составлении обзорных рефератов нескольких статей.

Таким образом, данное учебное пособие создает условия для последовательной и целенаправленной работы по освоению техники чтения, перевода и реферирования сначала в учебных (части I и II), а затем в более естественных условиях (части III и IV). Упражнения III и IV частей следует рассматривать как упражнения-ориентиры, которые в дальнейшем должны стать для обучающихся методологической основой работы с текстами.

Структура пособия

В пособии использованы статьи из англоязычных газет и журналов (The Times, Science News, U.S. News & World Report, Washington Post Health, Daily Mail, The New York Times, Health World Online и др.), в которые внесены некоторые композиционные изменения, необходимые для решения учебных задач.

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Part I

Text 1 IMPORTANT MATERIALS IN YOUR FOOD

Foods contain different materials that help your body stay strong and healthy. One of the most important of these are proteins. They are absolutely necessary if the body is to grow, or if it is to repair any injuries or damage to itself. Some of the principal sources of protein are lean meats, fish, and dairy products like milk and cheese.

The sugar and starches, known as carbohydrates, are substances that everyone needs. They supply energy for the body. Potatoes, seed vegetables, such as corn or beans, and grain products like rice, spaghetti, bread, cake and cookies are some of the foods that are sources of carbohydrates.

Your body also needs other materials called vitamins and minerals. These two important substances help the body to make good use of the foods you eat by making sure the proteins and carbohydrates do their jobs. They also help the body to make body tissues such as bones, teeth, muscles, nerves and blood. By eating animal products like meat, eggs, and milk and using plenty of fresh vegetables and fresh fruits daily you can be sure of providing your body with the vitamins and the minerals it needs.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какие компоненты должны содержаться в пище человека и как они описаны в тексте.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют содержанию. Исправьте неправильные утверждения.
- 1. Proteins aren't important for children.
- 2. Proteins supply energy for the body.
- 3. Carbohydrates are harmful to the organism.
- 4. Vitamins and minerals are as necessary for the organism as other substances.
- 3. Найдите в тексте и переведите на русский язык слова, (а) обозначающие химические соединения в продуктах питания, (б) называющие пищевые продукты и (в) являющиеся анатомическими терминами. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.

- 1. to stay strong and healthy
- оставаться сильным и здоровым
- оставить сильным и здоровым
- 2. to repair injuries
- лечить травмы
- восстанавливаться после травм
- справиться с травмами
- 3. to make good use of sth.
- максимально использовать что-л.
- использовать хорошие качества чего-л.
- извлекать максимальную пользу из чего-л.

4. do their jobs

- выполняют свою работу
- выполняют свои функции

5. by making sure

- обеспечивая
- делая уверенным
- создавая условия
- 5. Просмотрите текст и определите, какие видо-временные формы глагола использованы в нем. Поясните использование именно этих формы.
- 6. Найдите в тексте словосочетания is to grow и is to repair. Поясните в них функцию глагола to be (в форме is) и переведите предложения на русский язык в соответствии с контекстом.
- 7. Найдите в тексте глаголы в 3-й форме и слова с суффиксом -ing, определите их функции в предложении и переведите на русский язык в соответствии с контекстом.
- 8. Выполните письменный перевод текста на русский язык, используя словарь (20 мин.).
- 9. Проведите реферативную обработку текста в формате резюме.

КАК СОСТАВИТЬ РЕЗЮМЕ ТЕКСТА

Резюме (фр. resumé) — краткое изложение сути написанного, сказанного или прочитанного.

IIIar 1

Составьте вводное предложение резюме.

Вводное предложение указывает, какой проблеме посвящен текст.

Illar 2

Сформулируйте *mesuc* резюме (тезис: *греч. thesis* — положение, истинность которого должна быть доказана).

В тезисе кратко излагается основная идея автора (-ов) текста.

Шаг 3

Найдите в тексте и кратко изложите *аргументы* резюме (аргумент: *лат. argumentum* — логический вывод, служащий основанием доказательства).

Аргументы — предложения, подтверждающие тезис резюме. Аргументов может быть несколько, они должны излагаться в логической последовательности.

Шаг 4

Сформулируйте вывод резюме.

Вывод всегда согласуется с тезисом и представляет собой умозаключение, являющееся следствием аргументов.

IIIar 5

Отредактируйте текст резюме, придав его содержанию строгую логичную структуру с помощью *словосочетаний-связок*.

- а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.
- The aim of the article is to give some information about proteins, fats and carbohydrates.
- The article deals with the most important materials of our food.
- The article points out that one should eat plenty of fruit and vegetables.
- б. Выберите тезис и соответствующий ему вывод для резюме текста из предложений, приведенных ниже. Обоснуйте свой выбор.
- Proteins are necessary for the body to grow.
- Foods must contain different materials to help the human body stay strong and healthy.
- People should provide their bodies with all the necessary substances by eating various foods.
- As carbohydrates supply energy for the body, it is recommended to eat potatoes, seeds and vegetables.

- в. Расположите аргументы, подтверждающие тезис резюме текста, в логической последовательности.
- One of the most important ingredients are proteins.
- They supply energy for the body.
- They are involved in the processes of body's growing and repairing.
- The human body also needs vitamins and minerals that help proteins and carbohydrates do their work.
- Other important materials are carbohydrates.
- г. Составьте письменно резюме текста, используя предложения из заданий (а), (б), (в) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- д. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 10. Ответьте на вопросы к тексту.
- 1. What materials are discussed in the text?
- 2. What is the medicinal property of proteins?
- 3. What principal sources of proteins are named in the text?
- 4. What foods supply energy for the body? What does it contain?
- 5. What function do vitamins and minerals perform?
- 6. What food contains vitamins and minerals?
- 7. What products should people consume to stay healthy?
- 8. What material important for the organism is not described in the text?
- 11. Составьте, используя текст, краткие сообщения на темы:
 - The sources and role of carbohydrates in the human body.
 - The sources and role of proteins in the human body.
 - The sources and role of vitamins and minerals in the human body.
- 12. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

A well-balanced diet.

Text 2 IS SALT REALLY THAT BAD?

First, Americans were told to trim the fats and cholesterol from their diets. Then they were warned about the hazards of sugar. The latest villain is the most common condiment of all — salt.

The experts agree that some of the nation's 40 million to 60 million hypertensives should reduce their salt intake. But they seriously doubt that this would do any good for the population at large.

Salt — sodium chloride — is one of the most essential ingredients of the normal diet. Sodium helps maintain proper blood volume and controls the flow of water in and out of body cells. It is also vital for the transmission of nerve impulses and the metabolism of proteins and carbohydrates. Chloride is needed to maintain the body acid balance and for the action of certain enzymes. On the average, Americans consume 10 grams of salt a day! About three grams come from the natural salt content of certain foods, four grams are added by food processors and additional three grams are used during cooking or at the table. For patients with significantly high blood pressure to get any benefit, they must reduce their daily salt consumption to one gram. That means eliminating virtually all canned goods and bread from the diet and boiling everything else until the salt has been leached out. Not many people are willing to do that.

Even cutting salt consumption in half could be dangerous. Not only could it deplete the body of necessary salt, but the drastic measures required to cut down on salt could also reduce the intake of other important minerals such as calcium.

High blood pressure is a complex disorder involving many elements including heredity.

Of those with high blood pressure as few as 30 per cent need to cut down on salt. These are patients whose disease involves low levels of renin, a hormone that plays a role in blood pressure. But for other hypertensives and for the rest of us, salt reduction is an unnecessary inconvenience and hardship with possible risk.

- 1. Ознакомьтесь с содержанием текста (2 мин.) и скажите на русском языке, какие факты, приведенные в тексте, свидетельствуют о пользе соли.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.

- 1. Salt is necessary for the human body.
- 2. All hypertensives should reduce their daily salt intake.
- 3. Salt-limited diet is good for everybody.
- 4. Salt consists of chloride and carbonate.
- 3. Найдите в тексте и переведите на русский язык слова, являющиеся химическими и медицинскими терминами. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.

1. for the population at large

- для широких слоев населения
- для всего населения

2. on the average

- в среднем
- примерно

3. as few as 30 percent

- всего лишь 30%
- только 30%
- менее 30%

4. to cut down on sth

- сократить потребление чего-л.
- сократить что-л.

5. the rest of us

- наш отдых
- все остальные

6. to trim ... from their diet

- исключить из рациона
- исключить из диетического питания
- 5. Найдите в тексте предложения, где сказуемое (а) включает модальный глагол, (б) выражено глаголом в страдательном залоге, (в) выражено глаголом в настоящем длительном времени. Поясните, какое значение эти грамматические конструкции вносят в содержание текста.
- 6. Найдите в тексте словосочетание *This means eliminating ... and boiling ...* и определите функцию слов *eliminating* и *boiling*. Переведите это словосочетание на русский язык в соответствии с контекстом.
- 7. Найдите в тексте слова required и involving, определите их функции в предложениях и переведите на русский язык в соответствии с контекстом.
- 8. Найдите в тексте словосочетание of those with high blood pressure и назовите существительное, которое может быть использовано вместо местоимения those. Переведите словосочетание на русский язык в соответствии с контекстом.

- 9. Выполните письменный перевод текста на русский язык, используя словарь (30 мин.).
- 10. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.
- The article entitled "Is salt really that bad?" warns of hazards of salt intake.
- The article doubts the common opinion that salt consumption must be reduced significantly for all people.
- The article entitled "Is salt really that bad?" recommends all hypertensives to reduce salt intake.
- б. Выберите тезис и соответствующий ему вывод для резюме текста из предложений, приведенных ниже.
- Salt-limited diet is recommended to all hypertensives.
- Salt is an essential ingredient of a normal diet.
- People who consume too much salt develop hypertension.
- For most people salt reduction is an unnecessary inconvenience with possible risk.
- в. Расположите аргументы, подтверждающие тезис резюме текста, в логической последовательности.
- However, salt can be harmful for some patients.
- Sodium helps maintain proper blood volume and controls the flow of water in and out of body cells.
- Chloride is needed to maintain the body acid balance and work of certain enzymes.
- Sodium is necessary for transmission of nerve impulses and is involved in the metabolism of proteins and carbohydrates.
- It consists of sodium and chloride which play an important role in the human body.
- It is claimed that salt consumption should be reduced in hypertensive patients.
- For example, it should be recommended to reduce salt consumption in hypertensive patients with low renin levels.
- г. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а), (б), (в) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.

- д. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 11. a. Объедините предложения, используя словосочетание as well as.

Образец: Hypertension can be caused by low levels of renin as well as by some hereditary factors.

- Sodium is involved in transmission of nerve impulses. Sodium is involved in the metabolism of proteins.
- Chloride is needed for the body acid balance. Chloride is needed for the work of certain enzymes.
- Sodium helps maintain proper blood pressure. Sodium helps control the flow of water into the cells.
- б. Отредактируйте резюме текста "Is salt really that bad?", используя, где возможно, словосочетание as well as.
- 12. Ответьте на вопросы к тексту.
 - 1. How much salt do Americans consume daily?
- 2. What patients are usually recommended to reduce salt intake?
- 3. Which hypertensives really need to cut down on salt?
- 4. How may salt consumption be reduced?
- 5. What chemicals does salt consist of?
- 6. What role does sodium play in the human body?
- 7. What role does chloride play in the human body?
- 8. What is recommended to the public at large?
- 13. Составьте, используя текст, краткие сообщения на темы:
 - Salt is an essential ingredient of normal diet.
 - Ways to reduce daily salt consumption.
 - Salt limitation for hypertensive patients.
- 14. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Pros and cons of salt intake.

Text 3 LIVER: GOOD FOR YOU BUT ALSO BAD FOR YOU?

Liver's suspiciously complex taste has never been a crowd-pleasure. And while the organ is acknowledged to be a rich source of vitamins, iron and other minerals, its sky-high cholesterol content has dissuaded even those eaters who find its aroma darkly alluring.

Another rationale heard for shunning the organ is its function as the body's clean-up department. The liver is very good at metabolizing chemicals (such as antibiotics and environmental chemicals) by converting them into forms that are easier for the body to eliminate.

But does eating liver expose a person to toxic chemicals, as some folks fear? The liver converts them to nontoxic products and excretes them. There is no evidence that it stores for any length of time anything toxic. However, it is true that it filters all the blood, and anything in the bloodstream that is foreign to the body and perceived by the body as dangerous will be metabolized and broken down. But the substance doesn't just collect and sit there. The liver takes a chemical and breaks it down and renders it into a safe form.

The American Heart Association Diet guide, designed "for all healthy Americans 2 years of age and older", says: "Organ meats are very high in cholesterol. However, liver is rich in iron and vitamins, and a small serving (3 ounces) is okay about once a month."

- 1. Ознакомьтесь с содержанием текста (2 мин.) и скажите на русском языке, какие факты в тексте говорят о вреде и какие о пользе печени как продукта питания.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. Liver's taste is popular with a lot of people.
- 2. Some people don't eat liver because it contains toxic chemicals.
- 3. The liver's function is to remove poisons and toxins from the blood.
- 4. Doctors recommend an occasional small amount of liver to healthy people, but not frequently.
- 3. Найдите в тексте и переведите на русский язык слова, являющиеся медицинскими терминами. Составьте с ними предложения на английском языке.

4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.	
has never been a crowd- pleasure	 никогда не было удовольствием для многих никогда никому не нравилось
2. darkly alluring	загадочно соблазнительныйтайно соблазняющий
3. rationale for sth	быть рациональным дляосновная причина чего-л.
4. clean-up department	очищающий отделочищающий орган
5. is very good at sth	очень хорошо справляется с чем-л.способна к чему-л.
6. expose to chemicals	 подвергает воздействию химических соединений создает условия для воздействия химических соединений
7. it stores	она вмещаетона накапливаетона сохраняет
8. breaks it down	разрушает еголомает его
9. high in cholesterol	 с высоким содержанием холестерина высокое содержание в холестерине
10. rich in iron	богата железомс высоким содержанием железасодержит много железа
11. a small serving	• небольшая порция

• недостаточное обслуживание

- 5. Найдите в тексте предложения со сказуемым, выраженным глаголом в страдательном залоге. Определите видо-временные формы этих глаголов и поясните, какое значение они вносят в содержание текста.
- 6. Найдите в тексте предложения с местоимением *it* и замените местоимение существительным в соответствии с содержанием текста.
- 7. Найдите в тексте причастия настоящего и прошедшего времени. Определите их функции в предложениях и переведите причастия на русский язык в соответствии с контекстом.
- 8. Найдите в тексте глаголы в неопределенной форме, определите их функции в предложениях и переведите глаголы на русский язык в соответствии с контекстом.
- 9. Выполните письменный перевод текста на русский язык, используя словарь (20 мин.).
- 10. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
 - а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.
 - The article describes the most important functions of the liver.
 - The paper points out that eating liver is good for health.
 - The article discusses pros and cons of eating liver.
- б. Выберите тезис и вывод для резюме текста из предложений, приведенных ниже. Обоснуйте свой выбор.
- The liver functions as the body's clean-up department.
- Eating liver does not expose a person to toxic chemicals, as some people fear.
- All in all, healthy people can eat a small amount of liver occasionally.
- The beneficial and harmful effects of liver consumption are well-known to specialists in the field of medicine.
- в. Расположите аргументы, подтверждающие тезис резюме текста, в логической последовательности.
- Secondly, it is a well-known fact that liver meat is very high in cholesterol.
- The liver is known to be the body's clean-up department.
- It takes toxic chemicals from the bloodstream, renders them into a safer form and excretes from the body.
- There is no evidence that liver stores toxic products in itself for any time and exposes a person to poisoning chemicals.

- On the other hand, liver is useful as it is a rich source of iron, vitamins and minerals.
- г. Составьте письменно на английском языке резюме текста, используя предложения из разделов (а), (б), (в) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- д. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 11. a. Объедините предложения, используя слова-связки although, though, even though.
 - Образец: Although doctors usually recommend to cut down on salt, they admit that it is a necessary ingredient of the normal diet for public at large.
 - Liver has a suspiciously complex taste. It doesn't mean that it contains any harmful chemicals.
 - The main function of the liver as a body's clean-up department is to take toxic chemicals from the bloodstream and break them down. There is no evidence that the liver stores toxic products in itself.
- б. Отредактируйте резюме "Liver: good for you but also bad for you?", используя, где возможно, слова-связки although, though, even though.
- 12. Ответьте на вопросы к тексту.
 - 1. Why do few people eat liver?
- 2. What function does the liver perform in the human body? Does it store the harmful chemicals?
- 3. Why is liver meat considered harmful to the human body if consumed in large amounts?
- 4. What materials necessary for the human body does liver meat contain?
- 5. What do doctors recommend?
- 13. Составьте, используя текст, краткие сообщения на темы:
 - People's attitude to liver in their diets.
 - There are no reasons for fear of eating liver.
- 14. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:
 - Positive and negative effects of liver-consumption Dectors recommendations to public at large.
 - Liver and other meats in daily diet.

Text 4 LEAPS IN GENETIC TESTING HELP AVOID FATAL DISEASES

The couple had two children with cystic fibrosis. They could not face having another. The disease causes digestive problems, breathing problems and lung infections with an almost continual threat of death from early childhood onward. The woman ended her next pregnancy by abortion. But now she is pregnant again and plans to have this baby. Genetic testing that has become available only within the last several months has given her solid assurance that the child will be free of the disease.

A revolution in diagnosis of genetic diseases is unfolding because of scientists' growing ability to find and interpret the messages of human genes. Such diagnoses are becoming available for an ever increasing roster of disorders caused by a fault in one or another single gene among the 50,000 to 100,000 that humans possess.

Prenatal detection of the classic form of hemophilia has become possible quite recently, as has been the case with cystic fibrosis.

Earlier methods allowed detection of at least 50 genetic diseases, including Down's syndrome and Tay-Sachs disease. But the new tests are safer for the fetus and have added important diseases.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какая медицинская проблема рассматривается в тексте.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. There have been no medical tests to detect genetic diseases until recently.
- 2. Genetic testing makes it possible to carry out prenatal detection of some diseases.
- 3. Hemophilia cannot be detected in the prenatal period.
- 3. Найдите в тексте и переведите на русский язык слова, являющиеся медицинскими терминами. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. has become available
- стали доступными
- были внедрены в практику
- стали возможными

- 2. solid assurance полная гарантия • твердые заверения • твердая уверенность 3. a revolution ... is unfolding • наблюдается революция • происходят значительные переме-НЫ 4. the messages of genes • передача генов • информация, которую несут гены 5. roster of disorders • список недугов • ряд заболеваний 6. a fault in a gene • дефект гена • генетическая ошибка 7. as has been the case with • как было в случае с... • как был тот случай, когда 8. will be free of the disease • у него не будет этого заболевания • будет здоровым • вылечится
- 5. Просмотрите текст и определите видо-временные формы глаголов, выполняющих функцию сказуемого. Поясните, какое значение они вносят в содержание текста.
- 6. Найдите в тексте отглагольные формы с суффиксом -ing, которые не входят в состав сказуемого. Определите их функции в предложениях и переведите на русский язык в соответствии с контекстом.
- 7. Выполните письменный перевод текста на русский язык, используя словарь (20 мин.).
- 8. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.
- The article describes a genetic disease.
- The paper includes a description of cystic fibrosis.
- The article presents recent advances in the diagnostics of genetic diseases.

- б. Определите, какие из предложений являются тезисом, аргументами и выводом резюме текста. Обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- The new prenatal genetic tests are safer for the fetus than the earlier ones.
- According to the article, tests for an increasing number of diseases caused by a fault in a single gene are becoming available.
- Nowadays, such severe genetic disorders as hemophilia and cystic fibrosis can be detected in the prenatal period.
- It allows prenatal diagnosis for disorders caused by a fault in a single gene.
- The genetic testing is extremely important giving parents solid assurance that their children will be free of fatal diseases.
- в. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а) и (б) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- г. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 9. а. Добавьте слова-связки, как показано в образце.

Образец: The new tests are more accurate. What is more/furthermore/moreover they are safer.

- The new device is quicker. It is less expensive.
- The new book gives a detailed description of the phenomenon. It provides several new explanations of the phenomenon.
- A new drug is used in case of severe flu. It is applied in pneumonia and meningitis.
- б. Отредактируйте резюме текста, добавив, где возможно, слова-связки what is more, furthermore, moreover.
- 10. Ответьте на вопросы к тексту.
- 1. What medical problems does cystic fibrosis cause?
- 2. What test helps detect cystic fibrosis in the prenatal period?
- 3. What other genetic diseases can be detected in the prenatal period?
- 4. What are the advantages of the new genetic tests?
- 11. Составьте, используя текст, краткие сообщения на темы:
 - Cystic fibrosis: cause, symptoms.
 - A revolution in diagnosis of genetic diseases.
- 12. Составьте сообщения на английском языке, используя информационные материалы по вашему выбору, на тему:

Genetic testing in the prenatal period: its role, accuracy, hazards.

Text 5 GENETIC DEFECT LINKED TO LEARNING PROBLEMS

A child born with a sex-chromosome abnormality is at high risk of developing learning problems, according to a study conducted by the National Jewish Centre for Immunology and Respiratory Medicine in Denver. About 1 in every 400 children has such an abnormality. In the study, researchers screened 40,000 newborns between 1964 and 1974. Forty-seven with sex-chromosome abnormalities were then followed into their teens. Ninety per cent of these youngsters showed deficit in language and motor ability, but the majority of them went on to lead well-adjusted lives due to proper care. Says Bruce Bender, one of the principal investigators, "The detection of sex-chromosome abnormalities should alert doctors and parents to the possibility that the child will need extra help."

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, о какой генетической патологии идет речь и каковы ее проявления.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. A child born with a sex-chromosome abnormality always develops learning problems.
- 2. Children with a sex-chromosome abnormality have difficulty with talking.
- 3. Children with a sex-chromosome abnormality may need extra help.
- 3. Найдите в тексте и переведите на русский язык слова, называющие научных работников и действия, которые связаны с исследовательской работой. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. is at high risk
- относится к группе высокого риска
- высока вероятность
- 2. showed deficit in
- продемонстрировали дефицит в...
- наблюдались трудности с...
- наблюдались недостаточные (способности)
- 3. went on to lead
- продолжали вести
- перешли к ведению

- 4. alert sb to the possibility
- настроить на то, что существует возможность
- предупредить о возможности...
- обратить внимание на то, что возможно
- 5. Найдите в тексте причастия настоящего и прошедшего времени, определите их функции в предложениях и переведите их на русский язык в соответствии с контекстом.
- 6. Найдите в тексте предложения со словом *should* и определите, какую из указанных функций оно выполняет в каждом случае:
- модальный глагол со значением долженствования;
- модальный глагол, выражающий совет.
- 7. Выполните письменный перевод текста на русский язык, используя словарь (10 мин.).
- 8. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Определите, какие из предложений являются вводным предложением, тезисом, аргументом и выводом резюме текста. Обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- Children with a sex-chromosome abnormality may need prompt help of doctors and parents to cope with their learning problems.
- It has been revealed that 90 per cent of them showed deficit in language and motor ability initially.
- The majority of them led well-adjusted lives later due to proper care.
- The article presents a study of children with a sex-chromosome abnormality.
- The researchers followed 47 children with a sex-chromosome abnormality from their birth into their teens.
- Children with this genetic defect are at high risk of developing learning problems which may be corrected.
- б. Составьте письменно на английском языке резюме текста, используя предложения из задания (а) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- в. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.

- 9. a. Соедините предложения, используя подходящие по смыслу слова-связки противопоставления although/even though/though или следствия so/thus/therefore как показано в образце.
 - Образец: Although /even though/though 90 per cent of children with a sex-chromosome abnormality show some deficit in language and motor ability, the majority lead well-adjusted lives.

Ninety per cent of children with a sex-chromosome abnormality show some deficit in language and motor ability. **Thus/so/therefore**, they need extra help which should be provided by parents and doctors.

- Researchers had been studying this genetic disorder for 10 years. They didn't manage to find its cause.
- Researchers have been studying this genetic disorder for 10 years. They possess extensive data on its clinical features.
- Colon cancer runs in families. Relatives should be aware of the risks.
- Colon cancer runs in families. There is no evidence that the disease is hereditary.
- Our laboratory is well-equipped. We have no device for diagnosing this
 disease.
- Our laboratory is well-equipped. We can carry out sophisticated experiments.
- б. Отредактируйте резюме текста, добавив, где возможно, некоторые из словсвязок, указанных в разделе (а) данного упражнения.
- 10. Ответьте на вопросы к тексту.
- 1. How often does a sex-chromosome abnormality occur?
- 2. What problems do children with a sex-chromosome abnormality develop?
- 3. How can they cope with these problems?
- 4. To what extent is this help effective?
- 11. Составьте, используя текст, краткое сообщение на тему:

A sex-chromosome abnormality in children.

12. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Genetic defects in people: types, physical and mental effects.

Text 6 COMPUTERIZED DIAGNOSIS

American surgeons have given themselves the task of learning to diagnose brain edema and swelling before the painful symptoms set in and to differentiate between the two, because a different treatment is needed for each one.

In experiments on rabbits models of slowly growing intracranial hypertension were built up, and then platinum electrodes were used to measure the resistance of the cerebral tissue — with low frequency when the current passed mainly through intercellular spaces (the so-called ohmic resistance), and with a higher frequency when the current passed through both intercellular spaces and the cells, overcoming the complete, combined resistance. And the so-called capacity reactance was then determined with the aid of a special formula.

As a result, a method was elaborated which helps to determine what precisely – an edema or a swelling – is the predominant disease.

The results of the experiments made it possible to use the method at the institute's resuscitation ward.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какая диагностическая процедура описана в нем.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. The aim of the work was to detect a vascular disorder.
- 2. The experiment was carried out on wild animals.
- 3. The findings were introduced into practice.
- 3. Найдите в тексте и переведите на русский язык слова, являющиеся медицинскими терминами. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. have given the task
- поставили цель
- озадачили
- 2. learning to diagnose
- научиться диагностировать
- обучение диагностике

3. set in

- начнутся
- появятся
- 4. were built up
- были созданы
- были разработаны

5. so-called

- так называемая
- так названная
- 6. made it possible
- сделали возможным
- сделали это возможным
- 5. Найдите в тексте сложные предложения и определите их составляющие. Укажите средства связи главного и придаточных предложений.
- 6. Найдите в тексте причастия прошедшего времени, укажите их функции и переведите их на русский язык в соответствии с контекстом.
- 7. Найдите в тексте словосочетание between the two и определите, какие два слова заменены словом two.
- 8. а. Найдите в тексте словосочетание with the aid of и, изучив соответствующие им словарные статьи, объясните, почему автор заметки использует существительное aid, а не help.
- б. Найдите в тексте словосочетание which helps to determine и, изучив соответствующие им словарные статьи, объясните, почему автор заметки использует глагол to help, a не to aid.
- 9. Выполните письменный перевод текста на русский язык, используя словарь (15 мин.).
- 10. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
 - а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.
 - The paper describes a new method of computerized diagnosis in neurology.
 - The article describes experiments on the rabbit's brain.
 - The report describes a new method that helps to determine a disorder in human brain.
- б. Определите, какие из предложений являются тезисом, аргументами и выводом резюме текста. Обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- Currents of different frequency were passed through cerebral tissue and the resistance of intercellular spaces and the cells was measured using platinum electrodes.
- The main goal of the study was to develop a new diagnostic system for early differentiation between brain edema and swelling requiring different types of treatment.

- The final cerebral reactance specific for edema and swelling was determined with the aid of a special formula.
- Experiments were carried out on rabbits with induced growing intracranial hypertension.
- The method to differentiate between edema and swelling before the paintful symptoms is used in resuscitation wards.
- в. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а) и (б) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- г. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 11. a. Соедините предложения, используя слова-связки both ... and ..., как показано в образце.

Образец: The resistance of **both** intercellular spaces **and** the cells was measured.

- Experiments were carried out on rabbits. Experiments were also carried out on mice.
- Currents of low frequency were passed through the tissue. Also currents of high frequency were passed through the tissue.
- Dr. Jenkins works for an international pharmaceutical company. Dr. Higgins works for an international pharmaceutical company, too.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки both ... and ...
- 12. Ответьте на вопросы к тексту.
- 1. What medical problem did the surgeons study?
- 2. What was the aim of the experiment?
- 3. Why is this study clinically significant?
- 4. What animals were used in the experimental study?
- 5. What equipment was used?
- 6. What data were collected?
- 7. What was the practical outcome of the study?
- 13. Составьте, используя текст, краткое сообщение на тему:

A new method of diagnostics to differentiate between brain edema and swelling.

14. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Methods of brain pathology diagnostics.

Text 7 YOUTH HAD COMPUTER SICKNESS, DANISH DOCTORS REPORT

Copenhagen. A youth aged 18 became so obsessed by a home computer that he was taken to hospital suffering from "computer sickness", Danish psychiatrists reported in the latest issue of the *Doctors' Weekly Journal*.

"At the age of 16 he was spending up to 16 hours a day in front of the computer. He became quiescent, lacked initiative and stopped going to school," the report said. "He even began to think and dream in computer language. He became afraid to sleep and was admitted to a psychiatric department because of growing anxiety."

The psychiatrists said the youth, whose father was a computer specialist, used his screen as a replacement for friends and regarded people as mere machines.

"The widespread and increasing employment of computers in schools and leisure activities will influence adolescents emotional, cognitive and social development significantly in future and may result in psychiatric syndromes," the report warned.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, что и по какой причине случилось с молодым человеком в Дании.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. The patient's disease was caused by hard physical work.
- 2. The teenager spent too much time in front of the computer.
- 3. The patient did not need psychiatric treatment.
- 4. Much work with computers may result in psychiatric disorders.
- 3. Найдите в тексте и переведите на русский язык слова, являющиеся (а) медицинскими терминами, и (б) слова, имеющие отношение к компьютерной тематике. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже апглийские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. suffering from
- страдая от
- страдающий чем-либо
- с диагнозом
- 2. up to 16 hours
- к 16 часам
- до 16 часов

э. he began to dream
 • он задремал
 • ему стали сниться
 • он начал мечтать
 4. used his screen
 • использовал экран
 • использовал компьютер
 5. result in
 • привести к чему-либо
 • дать результаты в чем-либо
 6. regarded people
 • разглядывал людей
 • считал людей (кем-либо)

- 5. Найдите в тексте предложения с глагольной формой was и определите ее функции (смысловой глагол, вспомогательный глагол).
- 6. Найдите в тексте сложное предложение, начинающееся со слов *The psychiatrists said ...*, укажите составляющие его простые предложения, а также подлежащее и сказуемое в каждом простом предложении. Переведите предложение на русский язык.
- 7. Найдите в тексте слова с суффиксом -ing, определите их функции в предложениях и переведите на русский язык в соответствии с контекстом.
- 8. Выполните письменный перевод текста на русский язык, используя словарь (15 мин.).
- 9. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.
- The article deals with the problem of computer obsession in young people.
- The article describes an interesting case in psychiatric practice.
- The report is about a youth suffering from "computer sickness".
- б. Расположите тезис, аргументы и вывод резюме текста в логической последовательности.
- Computers play an important role in modern life but their overuse is harmful.
- The report describes a young man of 18 who spent up to 16 hours a day in front of the computer and developed computer sickness.
- He stopped going to school and meeting friends.
- He regarded people as mere machines.
- He began to think and dream in computer language.
- He developed anxiety and was taken to a psychiatric hospital.
- Increased employment of computers in schools and leasure activities may affect teenagers' emotional and social development as well as health.

- в. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а) и (б) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- г. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 10. a. Соедините предложения, используя слова-связки со значением противопоставления despite/in spite of, despite/in spite of the fact that, как показано в образце.
 - *Ο*δρασεμ: **Despite/in spite of** obvious benefits of computers usage, there are a lot of negative effects.

Despite/in spite of the fact that our laboratory is lacking some ultra-modern devices, we try to continue research on this problem.

- There are obvious benefits of the new drug. It causes severe complications.
- Prof. Smith has been interested in immunology recently. Now he is doing research into heart disorders.
- She graduated from the medical department. She doesn't work as a doctor.
- б. Соедините предложения, используя слова-связки as a result для установления причинно-следственных связей, как показано в образце.

Образец: Our laboratory is lacking modern devices. As a result, we cannot carry out such experiments.

- He is not highly skilled as a programmer. He did not get a position in the international company.
- Their experimental work was successful. A new method of treatment was developed.
- в. Отредактируйте резюме текста, используя, где возможно, слова-связки as a result, moreover, what is more, despite of the fact that.
- 11. Ответьте на вопросы к тексту.
 - 1. What symptoms did the young man develop?
- 2. What caused his psychiatric disorder?
- 3. How did his life change due to computer obsession?
- 4. What do psychiatrists warn about?
- 5. Why is computer sickness becoming widespread?
- 12. Составьте, используя текст, краткое сообщение на тему:

The causes and symptoms of "computer sickness".

13. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Harmful effects of work on computer and their prevention.

Text 8 ROBOT HELPS REMOVE BRAIN TUMOR

Long Beach, California. A robot arm the size of a kitchen mixer, described as safer and more accurate than a surgeon's hand, has helped doctors remove a tumour, what is believed to be the first application of robotics in human brain surgery.

The three-hour operation was performed on a 52-year-old man at Memorial Medical Centre of Long Beach, Dr. San Kwoh, who developed the computer programme that makes the arm work, said the machine would never replace a surgeon but was a major improvement in the way brain tumours are located and removed.

The arm holds a probe that guides the surgeon through a hole drilled in the patient's skull and down a narrow tube to the tumour. The patient's head is held in place by a frame that contains the coordinates of the tumour. The robot is accurate to within 1/2000 of an inch.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какова функция робота в описанной операции.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. Robots perform all sorts of surgical operations.
- 2. Robots help surgeons remove brain tumors.
- 3. The device coordinates the work of surgeons during the operation.
- 4. Robots will replace surgeons in the future.
- 3. Найдите в тексте и переведите на русский язык медицинские термины и слова, используемые для описания медицинских манипуляций. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. brain surgery
- нейрохирургия

операции на мозге

- 2. developed the computer program
- усовершенствовал компьютерную программу
- разработал компьютерную программу
- 3. makes the arm work
- осуществляет работу «руки»
- заставляет «руку» работать

- 4. is held in place
- удерживается на месте
- фиксируется
- 5. is accurate to within
- точен до...
- точен в пределах
- 5. Найдите в тексте предложение, начинающееся со слов A robot arm the size..., и:
- определите, являются ли слова robot и kitchen существительными или прилагательными в словосочетаниях a robot arm и a kitchen mixer, переведите словосочетания на русский язык в соответствии с контекстом;
- переведите на русский язык словосочетание the size of a kitchen mixer, определите, какой предмет описывает это словосочетание;
- укажите английский эквивалент русскому словосочетанию «представленная как более безопасная и точная, чем рука хирурга», определите, какой предмет это словосочетание описывает;
- укажите два предложения, составляющие рассматриваемое предложение, установите, с помощью какого союза или союзного слова они соединены;
- найдите в каждом предложении, составляющем данное сложное предложение, подлежащее и сказуемое и переведите эти главные члены предложений на русский язык в соответствии с контекстом.
- 6. Найдите в тексте случаи употребления причастия прошедшего времени, определите функции причастий и переведите их на русский язык в соответствии с контекстом.
- 7. Выполните письменный перевод текста на русский язык, используя словарь (10 мин.).
- 8. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Выберите предложение, которое наиболее точно представляет содержание текста в целом. Обоснуйте свой выбор.
- The article describes the first application of robotics in human brain surgery.
- The article deals with the problem of brain surgery.
- The article clarifies some details of a complicated surgical operation.
- б. Определите, какие предложения являются тезисом, аргументами и выводом резюме текста, обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- The robot used to remove brain tumours is of small size, highly accurate and safe.
- The patient's head is held in place by a special frame containing the coordinates of the tumour.

- Using robots in brain surgery is a significant improvement in the technique of brain tumour locating and removing.
- The robot's arm holds a probe that guides the surgeon through a hole in the patient's skull and down a narrow tube directly to the tumour.
- The machine will never replace the surgeon.
- в. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а) и (б) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- г. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 9. a. Соедините предложения, используя слова-связки while/whereas, как показано в образце.
 - Образец: The robot's arm holds a probe that guides the surgeon, while/whereas the patient's head is held in place by a special frame.
- The first-year students study gross anatomy. The second-year students study microscopic anatomy.
- The first article gives the detailed information about the methods. The second one provides an excellent description of the experiment.
- Women usually have 3-4 attacks of headache per month. Men can have headaches more frequently.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки while/whereas и although.
- 10. Ответьте на вопросы к тексту.
- 1. What field of medicine does the text deal with?
- 2. What medical technique is considered in the text?
- 3. How does the robot perform the function of locating and removing the tumour?
- 4. What qualities of the robot allow to improve brain surgery?
- 5. What is the function of the surgeon in such operations?
- 11. Составьте, используя текст, краткое сообщение на тему:

Using robots in operations for brain tumours.

12. Составьте обзорное сообщение на английском языке, используя информационные материалы по Вашему выбору, на тему:

Robotics in medicine.

Text 9. HEALTH TESTS: KEEPING VIGIL AT HOME

For a long time the most common instrument available to check a person's health at home was the lowly thermometer. Now scientists have developed a battery of sophisticated home health-care tests to detect everything from blood-sugar levels to fertility cycles and early signs of heart disease. These tests can warn people of potential health risks so they can seek a doctor for prompt diagnosis and treatment.

For people who suffer from diabetes and other chronic illnesses, home health-care tests are a way to keep careful tabs. Diabetics, for example, must constantly watch their blood-sugar levels to time their insulin injections properly. Several firms are now marketing devices that can tell a diabetic exactly how much glucose, or blood sugar, is in his system.

A diabetic places a drop of blood on a chemically treated plastic strip, waits a minute and inserts the strip into a meter. The meter optically measures changes in the strip's color, and an exact measurement of glucose concentration appears on a digital display.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, о каких медицинских тестах идет речь.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. To check one's health at home only a thermometer can be used.
- 2. Nowadays there are numerous tests to check a person's health at home.
- 3. People suffering from diabetes can have their blood test made at home.
- 4. People suffering from diabetes can make their blood test at home.
- 3. Найдите в тексте и переведите на русский язык медицинские термины и слова, описывающие процедуру анализа крови. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. the most common instrument
- наиболее простой инструмент
- наиболее распространенный инструмент
- 2. instrument available to check
- инструмент, доступный для проверки
- инструмент, имеющийся в наличии, чтобы проверить

- 3. the lowly thermometer
- скромный термометр
- простой термометр

- 4. prompt diagnosis
- быстрая диагностика
- быстро поставленный диагноз
- 5. a way to keep careful tabs
- способ вести записи аккуратно
- способ вести тщательный учет
- 6. to time injections properly
- делать инъекции своевременно
- правильно определить время, когда надо делать инъекции
- 7. chemically treated
- пролеченный химическими препаратами
- обработанный химическими препаратами
- 5. Найдите в тексте случаи использования инфинитива с частицей *to*, определите функции этой глагольной формы. Переведите глаголы на русский язык в соответствии с их функциями в предложениях.
- 6. Найдите в тексте слова с суффиксом -ly и определите, какими частями речи они являются. Переведите слова с суффиксом -ly на русский язык в соответствии с содержанием текста.
- 7. Найдите в тексте предложения, где глаголы в функции сказуемого употреблены в настоящем простом, настоящем длительном и настоящем перфектном временах. Поясните, какое значение эти видо-временные формы вносят в содержание текста.
- 8. Выполните письменный перевод текста на русский язык, используя словарь (15 мин.).
- 9. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Определите, какие из предложений являются вводным предложением, тезисом, аргументами и выводом резюме текста, обоснуйте свой вывод. Расположите аргументы в логической последовательности.
- They are simple in use and can be easily carried out by everyone.
- The article is devoted to modern home health-care tests.
- Recently, scientists have developed a number of tests that make it possible to detect some health disorders at home.
- The development of such tests leads to people being able to assess potential health risk and seek medical aid promptly.

- As an example, the article describes the procedure of testing blood for glucose by diabetics themselves.
- б. Составьте письменно на английском языке резюме текста, используя предложения из задания (а) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- в. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме. Укажите, чем они отличаются от предложений резюме.
- 10. а. Замените словосочетание *lead to* на слова-связки, указывающие причинноследственные отношения *due to/because of*. Внесите необходимые изменения в структуру предложения, как показано в образце.

Образец: Invasion of microbes **leads to** the development of infectious diseases.

Infectious diseases develop due to invasion of microbes.

- Development of modern antibiotics leads to a better treatment of infectious diseases.
- Taking antibiotics may lead to developing allergic reactions.
- Faults in human genes may lead to the development of very serious diseases.
- Some faults in human genes may lead to inherited diseases.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки due to и as a result.
- 11. Ответьте на вопросы к тексту.
- 1. What medical tests have been developed recently?
- 2. What patients need health-care tests at home?
- 3. What are these tests used for?
- 4. What test do diabetics regularly need? Why?
- 5. How is blood test for glucose carried out?
- 12. Составьте, используя текст, краткие сообщения на темы:

Modern home health-care tests and their functions. Blood tests for diabetics to use at home.

13. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Home health-care tests: the most commonly used, role in medical treatment, reliability, side-effects.

Text 10 THE MEDICAL RECORD

The medical record is a completely confidential document. Contents of the medical record will not be revealed without your permission to anyone including your husband or wife. It is safe to confide personal intimate information to your physician.

The patient himself can obtain information about his own medical record. The physician will inform you of your past or present health state and will almost always give you information about his findings.

The physician owns the record. He will give you a copy of the material contained therein, although he will never give you the original record itself.

A thorough medical record with notations after each visit is extremely valuable in giving the physician a running picture of your health over the years. Your physician will repeatedly refer to the medical record to see if certain conditions were present years before.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какая информация об истории болезни предлагается в нем.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. Doctors will always inform their patients of their state of health.
- 2. The original medical record is always given to the patient.
- 3. The medical record can be seen by the patient's relatives without the patient's permission.
- 4. A thorough medical record is very important for the doctor.
- 3. Найдите в тексте и выпишите словосочетания, соответствующие указанным ниже русским словосочетаниям. Составьте с ними предложения на английском языке.
- личная информация, доверить информацию, получить информацию, предоставить информацию;
- история болезни, содержание истории болезни, сообщить содержание истории болезни.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. the material contained therein
- информация, которая в ней содержится
- материал, включенный в нее

- 2. extremely valuable
- очень ценное
- чрезвычайно ценное
- 3. a running picture
- изменяющаяся картина
- текущая картина
- 4. were present
- присутствовали
- наблюдались
- 5. years before
- годами ранее
- уже несколько лет
- в прошлом
- 5. Найдите в тексте предложения, в которых сказуемое выражено глаголом в будущем простом времени. Поясните, почему употреблено будущее, а не настоящее простое время в отличие от других предложений.
- 6. Найдите в тексте слова с суффиксом -ing, определите, какими частями речи они являются. Укажите их функции в предложениях. Переведите эти слова на русский язык в соответствии с содержанием текста.
- 7. Выполните письменный перевод текста на русский язык, используя словарь (10 мин.).
- 8. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Определите, какие предложения являются вводным предложением, тезисом, аргументами и выводом резюме текста, обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- The medical record gives a running picture of the patient's health over the years, which is condfidential information.
- Its contents may not be revealed to anyone without the patient's permission.
- The physician is the only person who owns it.
- The article gives a description of the medical record as an important document.
- The doctor will give a copy of the medical record to the patient, but will never give the patient the original itself.
- The physician repeatedly refers to the patient's medical record while dealing with a case.
- The physician makes notations after each visit of the patient.
- The medical record is a valuable and completely confidential document.
- б. Составьте письменно на английском языке резюме текста, используя предложения из задания (а) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.

- в. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме. Укажите, чем они отличаются от предложений резюме.
- 9. a. Добавьте слова-связки however/nevertheless, как показано в образце.
 - Oбразец: The physician can always give you necessary information about your health and a copy of the material contained in the record. **However/nevertheless**, he'll never give you the original record itself.
- The lecture was very interesting. It included little data on viral infections.
- The experiment was successful. Some results have to be checked once again.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки nevertheless, furthermore, as well as, thus.
- 10. Ответьте на вопросы к тексту.
- 1. What information do medical records contain?
- 2. How does the doctor use the medical record?
- 3. What data can a patient obtain from the medical record?
- 4. Why is the medical record called a confidential document in the text?
- 11. Составьте, используя текст, краткие сообщения на темы:

Medical records are completely confidential documents. The information contained in medical records.

12. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Medical records in doctors' practical work.

Text 11 FETUSES HAVE INNER CLOCK

The biological clock apparently begins ticking in the womb, so parents and doctors should help newborns get synchronized with their new environment, researchers say.

What we've been able to establish is that a biological clock is working very early, even in fetal life, and it appears it is important for this clock to know what time it is.

Everyone has an area of the brain known as the circadian pacemaker located in the hypothalamus that keeps the body's biological processes synchronized with the environment, controlling such behaviour as the sleep-wake cycle.

The biological clock has also been linked to certain diseases such as asthma attacks that are more likely to occur at night. Some scientists have even speculated that a person's birth and death may be influenced by the clock.

Researchers had known the biological clock existed in adults but had thought the pacemaker was not present in fetuses or young babies because their sleep schedules and other indicators are usually erratic.

But recent studies conducted with rats confirmed that the clock was present in the brains of fetuses, although it was not yet controlling their body's physiological system.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какова роль биологических часов в организме.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. The biological clock is localised in the brain.
- 2. The biological clock is not important for the human body.
- 3. The biological clock exists in grown-ups but cannot be found in fetuses.
- 4. The circadian pacemaker plays an important role in controlling the sleep-wake cycle.
- 5. A person's state of health does not depend on the body clock functioning.
- 3. Найдите в тексте и переведите на русский язык медицинские термины. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. doctors should help
- надо, чтобы врачи помогали
- врачи обязаны помогать
- врачи должны помогать

- 2. get synchronized • помочь синхронизироваться способствовать координации обеспечить гармонию 3. keep synchronized сохранять координацию сохранять временное соответствие 4. occur at night наблюдаются в ночное время происходят в ночное время 5. are usually erratic обычно странные обычно нестабильные 6. sleep schedules время сна расписание сна 7. recent studies занятия последнего времени
- 5. Найдите в тексте предложение, которое начинается словами What we've been able... и укажите составляющие его простые предложения. Определите, какие средства использованы для объединения простых предложений в сложное.

последние исследования

- 6. Укажите в тексте предложения, в которых используется перфектное настоящее и перфектное прошедшее время. Поясните, какой смысл они вносят в содержание текста.
- 7. Найдите в тексте слова с суффиксом -ing, определите их функции в предложениях и переведите на русский язык.
- 8. Найдите в тексте причастия прошедшего времени, определите их функции в предложениях и переведите на русский язык.
- 9. Найдите в тексте словосочетания we've been able to establish и may be influenced. Поясните, почему автор не использует модальный глагол can в этих случаях.
- 10. Найдите в тексте словосочетание other indications и укажите, как изменился бы смысл предложения, если бы автор использовал артикль the the other indications.
- 11. Выполните письменный перевод текста на русский язык, используя словарь (15 мин.).
- 12. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
 - а. Выберите предложение, которое наиболее точно представляет содержание текста в целом (вводное предложение будущего резюме текста). Обоснуйте свой выбор.

- The article is devoted to work of the biological clock.
- The article says that the body's inner clock begins working in fetal life.
- The article notes that the biological clock exists not only in adults but also in infants.
- б. Определите, какие из предложений являются тезисом, аргументами и выводом резюме текста, обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- There was no evidence of such a clock in newborns until recently.
- It is located in the hypothalamus and keeps the body's biological processes synchronized with the environment.
- According to recent studies, the biological clock, known as the circadian pacemaker, exists in adults and in infants.
- The body's clock is linked to such diseases as asthma and insomnia.
- It influences a person's birth and death.
- Parents and doctors are to help newborns to get synchronized with the environment and make the inner clock work like in adults.
- Now it is known that the biological clock begins ticking already in the womb.
- Fetus's inner clock is unable to control its physiological systems.
- в. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а) и (б) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- г. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 13. а. Объедините предложения, используя слова-связки not only ... but also ..., как показано в образце, сделав необходимые изменения в исходных предложениях.
 - Образец: Recent studies indicated that the biological clock known as the circadian pacemaker exists **not only** in adults **but also** in infants.
 - Such disorders can be observed in young men. They can also be observed in teenagers.
 - You can obtain the information on arthritis from specialist journals. You can obtain such information from the Internet, too.
 - This book is recommended for scientific workers. It is recommended for physicians as well.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки not only ... but also ..., although, as well as, moreover.

14. Ответьте на вопросы к тексту.

- 1. What part of the brain is responsible for the biological clock?
- 2. What is the function of the biological clock?
- 3. What body processes are influenced by the biological clock?
- 4. Why did the scientists doubt the existence of the biological clock in fetuses and young babies?
- 5. What studies confirmed the presence of pacemaker in fetuses? What is specific about it?
- 6. What recommendation is given to parents and doctors?

15. Составьте, используя текст, краткие сообщения на темы:

- The location and function of the biological clock.
- Functioning of the biological clock in adults and newborns.

16. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

The role of the biological clock in the human body.

Text 12 OLD AGE

Doctors tell us that our brain cells start to die from the moment we are born, and after childhood we stop replacing them. So it seems logical to assume that we might become less intelligent as we get older. Professor Rabbit of Manchester University in England has studied over 5,000 people in eight years. The results of the intelligence tests he applied to people 50, 60 and 70 years old showed a considerable proportion of old people whose intelligence had not dropped significantly with age.

It used to be thought that people's mental facilities inevitably deteriorated as they got older. Professor Rabbit found that many old people who did not perform well on the tests were, in fact, simply deaf. From his research it now seems that people who make an effort to keep their minds alert can remain in command of their faculties even to a very old age. Perhaps the oldest is Shigechiyo Tokunoshima of Japan still "mentally lucid" at 120! The message to people worried about their brain power declining with age seems to be "Use it or lose it!"

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какая проблема пожилых людей рассматривается в тексте.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. Brain cells begin to die when a person becomes a teenager.
- 2. Brain cells aren't replaced.
- 3. When people grow older they always become less intelligent.
- 4. To be mentally active to a very old age one should be engaged in intellectual work as long as possible.
- 3. Найдите в тексте и переведите на русский язык словосочетания, описывающие явления, связанные с деятельностью головного мозга. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. it used to be thought
- раньше считали
- обычно думали
- 2. mental facilities
- умственные способности
- средства мыслительной деятельности

- 3. did not perform well on the tests
- не справились с тестом
- не очень хорошо проявили себя при тестировании
- 4. make an effort
- совершают попытку
- стараются
- прилагают усилие
- 5. in command of their facilities
- по-прежнему распоряжаться своими средствами
- сохранить свои умственные способности
- 6. mentally lucid
- с ясным умом
- сохранивший ясный ум
- 5. Найдите в тексте все случаи употребления местоимения *it*, определите его функции и переведите на русский язык словосочетания с ним в соответствии с контекстом.
- 6. Укажите в тексте предложения, в которых сказуемое выражено глаголом в прошедшем перфектном времени. Поясните значение этой видо-временной формы и определите способы передачи ее значения на русском языке.
- 7. В последнем предложении текста определите, какими частями речи являются слова worried и declining, переведите эти слова на русский язык в соответствии с контекстом.
- 8. Укажите функции слова intelligence в словосочетаниях the intelligence tests и whose intelligence had dropped. Переведите эти словосочетания на русский язык в соответствии с содержанием текста.
- 9. Выполните письменный перевод текста на русский язык, используя словарь (15 мин.).
- 10. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
 - а. Определите, какие из предложений являются вводным предложением, тезисом, аргументами и выводом резюме текста. Обоснуйте свой выбор. Расположите аргументы в логической последовательности.
 - The aim of the study was to find out if the brainpower of people really declines with age.
 - The researchers examined over 5,000 people at the age of 50, 60 and 70 in 8 years.
 - The article describes a study in gerontology carried out in Manchester University, England.

- The subjects of the experiment were offered intelligence tests.
- The research showed that those who had made an effort to keep their mind alert remained in command of their mental faculties.
- Many old people did not perform well on the tests due to physical, not mental, disabilities.
- б. Составьте письменно на английском языке резюме текста, используя предложения из задания (а) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- в. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме. Укажите, чем они отличаются от предложений резюме.
- 11. Ответьте на вопросы к тексту.
 - 1. When do human brain cells begin to die?
- 2. What was the aim of the investigation carried out in Manchester University?
- 3. Who were the subjects of the experiment?
- 4. What tests were used in the experiment?
- 5. What were the results of the experiment?
- 6. Why may brainpower deteriorate with age?
- 7. What can be recommended to people growing old?
- 12. Составьте, используя текст, краткое сообщение на тему:

Age-related changes in mental faculties.

13. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Physical and mental changes occurring in elderly subjects.

Text 13 GET THOSE MUSCLES MOVING

Your muscles need to be used in order to stay healthy and strong. When your muscles are strong, your body stands tall and straight. You move easily and comfortably. Your limbs and stomach are firm. When you are playing a sport, your arms and legs feel strong enough to throw the ball or swing the racket. In fact, they feel great!

How much exercise should you get to keep in shape? According to Allan M. Levy, a doctor who has written a sports injury handbook, you should get 20 to 30 minutes of aerobic exercise to strengthen the heart and lungs at least three times a week. Some examples of good aerobic exercises are running, brisk walking, biking, tennis and swimming.

In addition, he suggests adding routines designed to strengthen muscles in the shoulders, back, hips and arms two days each week. Exercises such as full-body stretches, leg lifts and stomach curl-ups promote muscle strength and flexibility. And you can do them in the privacy of your own room if you want to.

Whatever activity you choose: swimming, biking, baseball, ballet, running — be careful not to do too much too soon, especially if you have been a slug all winter. Leaping right into a challenging exercise routine can put too much stress on your body, which can lead to sore muscles or to more serious sports injuries such as sprained ankles or damaged arms.

If you are physically active, it is also important to get enough sleep. Sports are great for your muscles, your heart and your lungs, and for weight control.

- 1. Ознакомьтесь с содержанием текста (2 мин.) и скажите на русском языке, какая информация о работе мышц предлагается в тексте.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют и какие не соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. Physical exercises are necessary to stay strong and healthy.
- 2. One should get one hour of aerobic exercise every day.
- 3. Running is not good to keep fit.
- 4. If you are physically active, you can sleep less.
- 3. Найдите в тексте и переведите на русский язык слова и словосочетания, которые а) являются анатомическими терминами; б) описывают физическое состояние человека; в) называют виды физических упражнений. Составьте с ними предложения на английском языке.

- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. need to be used
- надо использовать
- надо пользоваться
- 2. your body stands tall
- ваше тело становится выше
- ваше тело кажется выше
- 3. your arms feel strong enough
- руки достаточно сильные
- ваши руки воспринимаются как довольно сильные
- вы ощущаете, что у вас достаточно сильные руки
- вы ощущаете достаточно силы в руках
- according to Allan M. Levy
- согласно данным Аллана М. Леви
- согласовывая с Алланом М. Леви
- 5. in addition
- более того
- в дополнение к сказанному ранее
- 6. a challenging exercise routine
- напряженная система упражнений
- повышенная нагрузка
- 7. to get enough sleep
- стараться достаточно спать
- достаточно спать
- 5. Найдите в тексте предложения, где использованы модальные глаголы need и should, и переведите словосочетания с этими модальными глаголами на русский язык в соответствии с контекстом.
- 6. Найдите в тексте слова с суффиксом -ing, определите их функции в предложении и переведите на русский язык в соответствии с содержанием текста.
- 7. Найдите в тексте предложения, в которых сказуемое выражено глаголом в настоящем перфектном времени. Поясните значение этой видо-временной формы и определите способ передачи ее значения на русском языке для каждого случая употребления в тексте.
- 8. Найдите в тексте случаи употребления слова *too* и переведите его на русский язык в соответствии с содержанием текста.
- 9. Укажите функции слова stomach в словосочетаниях limbs and stomach are firm и stomach curl-ups. Переведите эти словосочетания на русский язык в соответствии с контекстом.
- 10. Выполните письменный перевод текста на русский язык, используя словарь (20 мин.).
- 11. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).

- а. Выберите наиболее подходящий тезис для резюме текста. Обоснуйте свой выбор.
- An ounce of prevention is worth a pound of cure.
- Muscles need to be used in order that the human body stays healthy and strong.
- The human body needs physical exercise.
- б. Определите, какие из предложений являются вводным предложением, аргументами и выводом резюме текста, обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- The researchers warn that too much exercise can be harmful, especially if a person has not been training before.
- To keep in shape one should get aerobic exercises such as running, biking and swimming, and body stretches at least 3 times a week.
- That helps strengthen the heart and lungs and promotes muscle strength and flexibility.
- It is important to get enough sleep, especially while exercising intensively.
- All in all, regular and reasonable physical exercise does a lot of good to the human body.
- The article is focused on the importance of physical activity for the human body.
- в. Составьте письменно на английском языке резюме текста, используя предложения из заданий (а) и (б) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- г. Отредактируйте резюме текста, используя, где возможно, слова-связки however, in addition, moreover.
- д. Вынишите из текста предложения, соответствующие по смыслу предложениям полученного резюме. Укажите, чем они отличаются от предложений резюме.
- 12. Ответьте на вопросы к тексту.
- 1. Why is physical activity important for the human body?
- 2. What sports are recommended to healthy people?
- 3. How much exercise is recommended to healthy people?
- 4. What is recommended to do to avoid harmful effects of physical exercise?
- 13. Составьте, используя текст, краткие сообщения на темы:

Physical exercises are beneficial to the human body. Precautions to be taken doing physical exercises.

14. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Positive and negative effects of sports.

Text 14 HIGH BLOOD PRESSURE IS ON THE RISE

Some 20 million Americans previously considered healthy have been reclassified as having high blood pressure — a disease that heart specialists say is reaching epidemic proportions.

The American Heart Association estimates that 55 million adults and 2.7 million children aged 6 through 17 now have elevated blood pressure compared with a 1985 estimate of 38 million. Reasons for the increase are a downward revision in the measurement standard and the inclusion of children. A few decades ago, a level of 160/95 was the cut-off point for clearly established risk. Recent studies have shown that people with levels of 140/90 were having problems.

High blood pressure contributes to heart disease and stroke by increasing the heart's workload.

As for children, recent studies of more than 8,000 5- to 24-year-olds have shown that up to 10 per cent have high blood pressure.

Diet, obesity and genes are just as likely to elevate blood pressure in kids as in adults.

In another development, scientists have identified genetic markers that indicate susceptibility to high blood pressure and coronary-artery disease.

A commercially available blood test for large-scale screening should be ready within two to three years for as little as \$50. This would identify those at greatest risk, so they could take preventive measures, such as exercise, following low-fat diets and not smoking.

- 1. Ознакомьтесь с содержанием текста (2 мин.) и скажите на русском языке, в каких аспектах рассматривается проблема повышенного кровяного давления.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. The number of people having high blood pressure has increased in the USA recently.
- 2. About ten per cent of children suffer from high blood pressure.
- 3. The measurement standard of blood pressure has not been changed recently.
- 4. People can do nothing to prevent blood pressure elevation.

- 3. Найдите в тексте и переведите на русский язык слова и словосочетания, которые а) являются медицинскими терминами; б) описывают процедуру научного исследования. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. epidemic proportions
- составляющие эпидемии
- уровень, соответствующий эпидемии
- 2. have elevated blood pressure
- имеют повышенное давление
- подняли давление
- 3. the measurement standard
- стандарт измерения
- стандарт показателей

4. the cut-off point

- начальный показатель
- пограничная величина
- 5. in another development
- в еще одной разработке
- в еще одном исследовании
- 6. within two to three years
- не более чем через 2-3 года
- в период между вторым и треть-им годами
- 5. Найдите в тексте словосочетания, состоящие из двух последовательно расположенных существительных (например, blood pressure). Укажите, какое из двух существительных является определением. Переведите словосочетания на русский язык в соответствии с контекстом.
- 6. Найдите в тексте словосочетания, включающие глагол to have, определите функцию этого глагола (вспомогательный, модальный, смысловой) в каждом словосочетании. Переведите словосочетания на русский язык в соответствии с содержанием текста.
- 7. Найдите в тексте слова с суффиксом *-ing*. Определите их функции в предложениях и переведите на русский язык в соответствии с контекстом.
- 8. Выполните письменный перевод текста на русский язык, используя словарь (20 мин.).
- 9. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).

- а. Определите, какие из предложений являются вводным предложением, тезисом, аргументами и выводом резюме текста. Обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- For that purpose a new blood test for large-scale screening for those at high risk is developed and expected on the market in 2-3 years.
- According to heart specialists, high blood pressure, which may lead to heart disease and stroke is reaching epidemic proportions, but the process can be controlled.
- The article deals with the problem of elevated blood pressure.
- Recent studies have pointed out that up to 10 per cent of children have high blood pressure.
- A few decades ago the cut-off point for clearly established risk of hypertension was a level of 160/95, which is now revised downwards.
- Twenty million people previously considered healthy have been reclassified, and the total number of hypertensives has nearly doubled since 1985.
- High blood pressure is known to be a complex disorder caused by a number of factors including stress, diet, obesity and genes.
- If identified in time, blood pressure disorder can be controlled by such measures as exercise, well-balanced diet and giving up smoking.
- б. Составьте письменно на английском языке резюме текста, используя предложения из задания (а) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- в. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 10. a. Определите, информация какого предложения является следствием другого предложения в каждой паре. Объедините предложения, употребив слова-связки следствия as a result, as a consequence, как показано в образце.
 - Образец: Today, most of the work in offices is done by computers. As a result/As a consequence fewer people are needed for jobs.
 - The hole in the ozone layer is getting bigger and bigger. The Earth's climate is changing.
 - A new device has been introduced into practice. Early diagnostics of a number of heart diseases has become available.
 - The researchers have discovered a gene for colon cancer. It has been proved that colon cancer is a hereditary disease.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки moreover, not only ... but also ..., as well as, as a result.

11. Ответьте на вопросы к тексту.

- 1. How many people in the USA are estimated to have elevated blood pressure?
- 2. What level of blood pressure was considered normal in the mid-1980s?
- 3. What level of blood pressure is considered normal nowadays?
- 4. Why has the measurement standard of blood pressure been changed?
- 5. What factors may lead to elevated blood pressure?
- 6. What diseases may hypertension result in?
- 7. What measures may prevent high blood pressure pathology?
- 8. What will help to identify the risk group in the near future?

12. Составьте, используя текст, краткие сообщения на темы:

- Reasons for the increase in the number of hypertensives.
- High blood pressure control.

13. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Medical aid to hypertensive subjects.

Text 15 THE FATIGUE THAT NEVER ENDS

Chronic fatigue syndrome has long got little — or no — respect from many in the medical establishment.

But recently some influential physicians who had been skeptical about the existence of this illness have reconsidered it. Last year the Centre for Disease Control, which investigates outbreaks of mysterious illnesses and epidemics, launched a study of the controversial syndrome. Scientists hope to come closer to discovering a cause and developing a diagnostic test for it.

The first 100 cases of chronic fatigue syndrome were reported in the mid-1980s in Lake Tahoe, Calif. Those sufferers, and many others since then, were high-achieving professionals in their thirties whose debilitating symptoms resemble a severe and unusually persistent flu: headaches, joint pain, memory loss, periods of disorientation, swollen lymph nodes and, above all, crushing fatigue.

Doctors pointed to the fact that unlike depression, which tends to occur gradually, chronic fatigue syndrome had a sudden, clear beginning.

And several months ago, a team from the Wistar Institute in Philadelphia announced what may be a link between a previously unknown retrovirus, a group of viruses that includes AIDS, and chronic fatigue syndrome.

- 1. Ознакомьтесь с содержанием текста (1 мин.) и скажите на русском языке, какая информация представлена по синдрому хронической усталости.
- 2. Прочитайте текст и определите, какие из приведенных ниже предложений соответствуют его содержанию. Исправьте неправильные утверждения.
- 1. Chronic fatigue syndrome has been reported only recently.
- 2. The patients develop cold-like symptoms.
- 3. Symptoms of chronic fatigue syndrome are similar to those of depression.
- 4. The syndrome may be caused by a virus.
- 5. Mostly teenagers suffer from chronic fatigue.
- 3. Найдите в тексте и переведите на русский язык медицинские термины. Составьте с ними предложения на английском языке.
- 4. Найдите в тексте приведенные ниже английские словосочетания и подберите к ним соответствующий содержанию текста перевод.
- 1. the medical establishment
- медицинская профессия
- медицинская среда
- медицинское учреждение

- 2. high-achieving professionals
- специалисты высокого уровня
- специалисты, достигшие высокого положения
- 3. crushing fatigue
- изнурительное чувство усталости
- давящая усталость
- 4. a clear beginning
- отчетливое начало
- ясное начало

- 5. since then
- с того времени
- поскольку тогда
- 6. launched a study
- начали учебу
- начали исследование
- 5. Найдите в тексте сложные предложения, которые начинаются со слов *But recently...*, *Doctors pointed to...*. Укажите простые предложения, входящие в их состав. Определите средства связи простых предложений, составляющих сложные. Переведите эти предложения на русский язык.
- 6. Проанализируйте употребление глагола to get в первом предложении текста и установите, является ли конструкция has long got перфектной формой или устойчивым словосочетанием в значении «иметь». Переведите словосочетание на русский язык.
- 7. Найдите в тексте существительные с определениями, укажите количество определений и части речи, которыми эти определения являются. Переведите словосочетания на русский язык в соответствии с контекстом.
- 8. Выполните письменный перевод текста на русский язык, используя словарь (15 мин.).
- 9. Проведите реферативную обработку текста в формате резюме (см. часть I, текст 1, упр. 9).
- а. Определите, какие из предложений являются вводным предложением, тезисом, аргументами и выводом резюме текста. Обоснуйте свой выбор. Расположите аргументы в логической последовательности.
- It is claimed that the disorder might be caused by a retrovirus.
- The first cases of the disorder were reported in the mid-1980s but it has not been recognized as a serious disease until recently.
- In the near future, scientists intend to find the cause of chronic fatigue syndrome and develop a diagnostic test for it.
- The article is devoted to chronic fatigue syndrome.
- The clinical signs of the new disease resemble those of a severe and unusually persistent flu.

- There is a specific symptom a crushing fatigue that unlike depression has a sudden and clear beginning.
- The cause of chronic fatigue syndrome is not discovered.
- б. Составьте письменно на английском языке резюме, используя предложения из задания (а) и соблюдая следующую последовательность: вводное предложение тезис аргументы вывод.
- в. Выпишите из текста предложения, соответствующие по смыслу предложениям полученного резюме, и укажите, чем они отличаются от предложений резюме.
- 10. а. Добавьте ко второму предложению каждой пары фразу *on the other hand*. Укажите роль этой фразы в смысловой связи предложений в каждой паре.
 - Образец: Chronic fatigue syndrome has long been known. On the other hand, it has always got little respect from the medical establishment.
 - The new book on arthritis discusses new methods of treatment. It is lacking information on the etiology of the disease.
 - The clinical signs of this disease have previously been described. The causes are still unclear.
 - The experiment yielded some interesting results. The conclusions made by the researcher were wrong.
- б. Отредактируйте резюме текста, используя, где возможно, слова-связки on the other hand, although.
- 11. Ответьте на вопросы к тексту.
 - 1. When were the first cases of chronic fatigue syndrome reported?
 - 2. Who usually suffers from this disease?
 - 3. What are the symptoms of the disease?
- 4. What was the attitude to chronic fatigue syndrome initially?
- 5. What may cause the disease according to the recent report?
- 6. Why is the disease worth studying?
- 12. Составьте, используя текст, краткое сообщение на тему:

Causes and symptoms of chronic fatigue syndrome.

13. Составьте обзорное сообщение на английском языке, используя информационные материалы по вашему выбору, на тему:

Diseases caused by retroviruses.

Part II

Assignments to texts 1–15

- 1. Переведите заголовок статьи на русский язык и выскажите предположение, какая проблема в ней рассматривается. Прочитайте статью и определите правильность своего предположения, внесите поправки, если необходимо.
- 2. Выполните письменный перевод статьи на русский язык, используя словарь.
- 3. Составьте список ключевых слов по теме статьи. Обоснуйте свой выбор.
- 4. А. Составьте резюме статьи, придерживаясь следующего плана:
- область медицины, рассматриваемая в статье (вводное предложение);
- общепринятая и/или авторская позиция по проблеме, рассматриваемой в статье (тезис);
- информация, раскрывающая содержание общепринятой/авторской позиции, иллюстрирующая, подтверждающая или опровергающая ее (аргументы);
- другие точки зрения (если указаны) и их обоснование (аргументы);
- выводы, рекомендации.
- Б. При составлении резюме используйте словосочетания из приведенных ниже списков.
- a) The aim of the article/study/experiment is ...

The article presents the idea/the facts ...

The article states/notes/describes ...

The main goal of the research is

The conclusion was made that ...

The results of the experiment/trial/study give evidence that ...

All in all, ...

The researcher recommends

According to recent studies, ...

It has been recently reported that ...

Recent studies have shown/pointed out that

It was a well-known fact that ...

There is (no) evidence that ...

It is claimed that

6) to give information

to elaborate a method

to regard smth as

to play an important role in

to be important for to introduce into practice

B) to lead to ...

to result in

to cause ...

to be caused by ...

to follow ...

to be followed by ...

to make it possible to ...

to allow to ...

to be needed for ...

to be due to/because of ...

to be a result of/a consequence of ...

r) as well as

although/though/even though

what is more/furthermore/moreover

so/thus/therefore

both ... and

despite/in spite of

while/whereas

due to

not only ... but also ...

in addition

as a result/as a consequence

on the one hand ... on the other hand

- 5. Составьте устно предложения по содержанию статьи с ключевыми словами, которые вы включили в список, выполняя задание 3.
- 6. Подготовьте устные сообщения на основе резюме статьи, добавив известную вам информацию по рассматриваемой в статье теме.

Text 1 BREAST CANCER LINKED TO PILL

Young women who have used the contraceptive Pill for over four years run a higher than normal chance of developing breast cancer before they reach the age of 36, a new study reveals.

The study, funded by several cancer research groups, shows that women using oral contraceptives for between four and eight years increase the risk of early breast cancer by some 40 per cent.

Those continuing to use the pill for over eight years run a 70 per cent greater risk than other women their age.

"Doctors should now be actively telling women of the apparent risks rather than waiting for women who are pill-users or newtakers to ask the questions."

The new study is the latest in a series of surveys which point to a strong causal link between use of oestrogen-based pills and cancers.

Breast cancer is now the single commonest cause of death for women aged between 35 and 54.

The new study is the most comprehensive examination of the possible links between use of the pill and breast cancer ever carried out in Britain.

Text 2 BERSERK ON TRANQUILLIZERS

Tranquillizers can trigger bizarre behaviour. A 30-year-old patient at a hospital attacked doctors after they gave him diazepam, a common benzodiazepine tranquillizer.

The man, who was suffering from stomach pains, was given the drug before an endoscope was threaded down his throat into his stomach. Just after the procedure had been completed, the man asked when it was going to start. When told it was over, the man went berserk, accused the doctors of lying and assaulted one of them. He calmed down only after a second endoscopy.

The patient, who remembered nothing of the incident, later apologized. The doctors note in *The Lancet* that it is uncommon for a drug given to a patient to prove harmful to the doctor.

Text 3 NEW PROTEIN THAT AIDS HEALING IS ISOLATED

A protein that stimulates bone healing has been discovered by researchers at the School of Dentistry of the University of California, San Francisco. The material, called osteogenic growth factor, joins a list of at least five other protein hormones that have been found to stimulate bone growth.

Two of these materials are being tested in humans to speed the healing of fractured bones or to stimulate regrowth of bones that have been lost to cancer or during plastic surgery. Work with the substances is also helping explain why astronauts lose bone mass in space and how an electrical field can promote bone healing.

The first bone growth stimulator, called *bone morphogenetic protein* or *BMP* was discovered in 1965.

BMP induces certain types of connective tissues and other unspecialized cells to become bone cells. Implanted in muscle tissue, for example, BMP will stimulate the conversion of connective tissue to an amorphous mass of bone.

Text 4 SNEEZING SEASON

There are about 200 different strains, or types, of cold viruses. Kids are exposed to lots of them and may come down with as many as 10 colds a year, according to the American Academy of Pediatrics, an organization of children's doctors.

Cold viruses get spread around when people cough and sneeze. You can also be exposed to cold viruses by picking up objects such as toys or pencils that someone who already has a cold has handled. Cold viruses are tough: they can live for hours on hands, towels, doorknobs and other objects. That is why it is a good idea to wash your hands often during cold season. When you touch something with the virus on it, the germs get on your hands. Then if you touch your mouth or your eyes, the virus can get inside you and start multiplying. First, the germs irritate the delicate lining of your nose and throat, causing that scratchy "I think I'm catching cold" feeling. Before long, you have got a full-blown cold.

Other ways to prevent colds from spreading from you to others include covering your mouth when you sneeze and washing your hands afterward. Do not share drinking glasses, towels or eating utensils either.

Nothing can cure a cold except time. But there are things you can do to make yourself less miserable, including drinking warm liquids such as chicken soup. Drinking a lot helps replace the fluids your body gives off as it rids itself of the nasty cold bugs. Getting lots of rest also helps. A coolmist humidifier in your room may help if you are coughing a lot. Make sure it is clean, though. Bacteria can grow in humidifiers, infect your lungs

or nasal passages, and make things a lot worse! Do not take cold medicine without consulting your physician.

Stay home as long as you have a fever, both to protect yourself and to avoid spreading your cold around when it is at its most active stage.

Text 5 ANTIBIOTICS

An upset stomach is a common side effect of many antibiotics. In some cases, there may not be much you can do to avoid it. However, you should let your doctor know about this problem for two reasons. For one, there may be other antibiotics you can take that do not have this side effect in you. For another, diarrhea and cramps can sometimes point to a potentially serious complication.

Besides attacking the germs for which they were prescribed, antibiotics kill off other bacteria normally present in your body.

In your intestines, killing off some germs can upset the natural balance of bacteria. This can lead to an overgrowth of some bacteria normally kept in check by others, and a number of side effects.

Although most people do not have any problems with antibiotics, some occasionally develop slight bloating and mild cramps. These side effects are generally mild and clear by themselves once you stop taking the medicine.

In a few people, however, antibiotics can cause a more serious overgrowth of a bacterium known as *N. difficile*. This germ produces a toxin that can give you bad cramps, fever, severe diarrhea, stomach pain and even bloody stools. Needless to say, if you develop any such symptoms, you should see your doctor.

In some cases, stopping the antibiotics will lead to recovery; in others, you may need another antibiotic to counteract the effects of the original one.

For the more usual cases of mild diarrhea with antibiotics, you can either ride it out or see if there is another antibiotic you can take. One word of caution: check with your doctor before using any anti-diarrhea medicines.

Text 6 ASPIRIN TAKEN IN PREGNANCY COULD LEAD TO BIRTH OF "BLUE BABIES", DOCTOR SAYS

A warning that aspirin should not be taken at any time during pregnancy was given at the first World Congress of Pediatric Cardiology held in London.

There is evidence that aspirin could lead to the birth of "blue babies", children who suffer from a shortage of oxygen in the blood.

There is now a number of documented cases where such babies had been born to mothers who had taken aspirin during pregnancy.

Such children were found to have thickened walls in the tiny arteries of the lung, and animal experiments had shown that aspirin could lead to this condition, reducing the flow of oxygen to the blood. The number of documented cases was small and it was not clear what dosage of aspirin caused the damage, or what period of pregnancy was critical.

The proportion of babies who died was not very high. But if it is a condition in which there is a possible preventive measure then it becomes much more important. It was a general principle that drugs should not be taken during pregnancy.

Text 7 HIV AND AIDS

AIDS, or acquired immunodeficiency syndrome, is a disease that attacks the immune system, your body's main defense against disease. AIDS is caused by a virus known as HIV (or human immunodeficiency virus). First reported in 1981, HIV infection is now a worldwide epidemic, affecting 34 million. According to the Centres for Disease Control and Prevention, 800,000 to 900,000 people in the United States are infected with HIV, and another 40,000 contract the virus every year.

HIV travels from person to person through body fluids such as blood, semen, vaginal fluids, and breast milk. It is most often spread through sex or by sharing needles used to inject drugs into the veins. An infected woman can also pass HIV to her child during birth or breast-feeding. Blood transfusions given to patients before 1986 also spread HIV, but the risk now of getting the virus this way is low — only 1 in 500,000. A person cannot catch HIV through casual contact such as hugs, kisses or handshakes.

When HIV first invades the body, it causes minor damage to cells in your immune system. You may not have symptoms, or you may have only a few symptoms at first; these symptoms often go away for months or even years. During all that time, though, HIV continues its assault. As the immune system weakens, it can no longer fully protect the body from germs and other invaders. When the damage reaches a certain point, the HIV infection turns into AIDS and life-threatening diseases such as pneumonia or cancer may soon follow.

There is no cure for AIDS, but you can do a lot to prevent the disease in the first place. And if you have tested positive for HIV, or even if you have full-blown AIDS, you can do a lot to slow the progress of the disease and stay healthy longer. New research and treatments also hold great promise: they may soon make AIDS a chronic — not a fatal disease.

Text 8 OVERUSE OF INHALANTS IS DANGEROUS

Warnings against overuse of powerful inhalant drugs by asthmatics continue to appear in the United States as well as in England and Wales.

Since last December aerosols have been obtainable only by prescription in the United Kingdom, but *The Lancet* says that in the period when they were directly available to the public, excess deaths were estimated to have numbered more than 3,500. Dangerous inhalants in the United States are available only by prescription.

In one report published in the U.S. 9 of 17 asthmatic patients who died during acute attacks were said to have been using one of the powerful bronchodilator aerosols excessively. In 12 non-fatal cases asthmatics developed severe wheezing while using 6 to 50 times the recommended dosage of the aerosol drug.

Some British patients were found dead with empty or near-empty bronchodilators in their hands or nearby. Some asthmatics have inhaled as much as 500 breaths in 10 minutes during severe attacks.

Excessive doses of bronchodilator aerosols can cause a chemical bronchitis and by changing the stickiness of bronchial mucus can cause bronchial plugging. The drug can also cause the heart to fibrillate or beat irregularly.

Text 9 BODY CLOCKS

Some jobs involve shift-work — working at night and sleeping during the day. Why do some people adapt well to this but others find that shift-work leads to ill health?

Scientists have realized for some time that the body has a natural clock. For example, the body's temperature follows a twenty-four-hour pattern, falling during the night and rising again during the day. This cycle is called the circadian clock, or rhythm, from the Latin words "circa diem" meaning "around one day".

The circadian clock is normally very accurate. Many "cues", like daylight, help to regulate the clock but studies have shown that even in areas where it is dark all day long in winter, the circadian clock maintains roughly a twenty-four-hour rhythm.

One way to upset this body clock is to fly to a different time zone. This will put the circadian clock out of step with its surroundings. In the middle of the day the body will behave as if it is three in the morning. This disorientation is known as "jet-lag". But after a few days, the body's clock adjusts to the new environment.

Similar feelings of disorientation and even serious ill health are sometimes experienced by shift workers. A study in France showed that workers who complained of tiredness and feeling unwell while on shiftwork had faulty body clocks. Some of them were running fast with cycles of only twenty-one or twenty-two hours. Others were running slow with cycles twenty-five or twenty-six hours long. As a result their circadian clocks got more and more out of step with the periods of rest and activity dictated by the twenty-four-hour cycle of work and free time on which shift-work is based. A sort of permanent "jet-lag" is the result. Some shift-workers, though, have no problems with changing patterns of work.

Text 10 WHAT THE DOCTOR WILL NOT TELL YOU ABOUT MIGRAINE CURE

One person in ten in Britain suffers from migraine which is three times more common in women than in men.

Migraine occurs when the blood vessels supplying the brain become abnormally dilated. Any treatment that is effective is designed to constrict the blood vessels and thereby relieve the headache caused by their congestion.

An attack can be triggered by an increase in stress, although surprisingly the symptoms in some people coincide with relaxation of the excessive tension, rather than happening when it is at its height. Migraine can be induced by certain foods but the most common aspect of diet that triggers an attack is starvation: patients liable to migraine should eat regularly and thereby maintain a regular blood-sugar level.

Some foods are notorious for stimulating headaches. These include alcohol and the simple rule is that the darker the alcoholic drink the more likely it is to cause migraine.

Women often notice that whatever the trigger that stimulates their migraine it is usually worse just before a period. In general it can be said that anything that will bring about a headache will also precipitate a migraine in a susceptible person.

Two types of migraine are usually described. In common migraine the severe headache is accompanied by nausea, with or without vomiting, and photophobia, a dislike of bright lights. In classic migraine the headaches and other symptoms are preceded by an aura, flashing lights before the eyes, partial loss of vision or a loss of sensation in various parts of the body. In both types of migraine the patient may notice that before the migraine attack started they felt particularly jolly and well.

Severe or persistent migraine is not something that should be tolerated without a visit to a doctor but the occasional sufferer may well find that a couple of capsules of Midrid will be all that they need. Their doctor will not tell them but experience has shown that Midrid is quite effective in relieving the headache.

Text 11 A WORLD OF DIFFERENCE

Diversity occurs in nature. A variety of plants, animals and organisms exist together to make up natural systems. That variety is called biodiversity.

Biodiversity includes all the various species, or types, of organisms, including plants, mammals, insects, reptiles, birds, bacteria and fungi. It

includes all the different kinds of ecosystems, such as oceans, wetlands and deserts. And it includes the vast variety of genetic material found within an individual species.

Genes are instructions imprinted in the basic chemistry of living things. In humans, genes determine characteristics such as eye color, height and the shape of the ears or nose. In animals, genes determine things such as fur thickness, neck length and the shape of a beak. Scientists now know that for a species (whether it is human beings or birds) to stay vigorous and healthy, a wide pool of genes must be available to pass down through the generations.

Understanding biodiversity means understanding that all these factors – species, habitat and genetics – are related. To save a species, it is crucial to save enough of its habitat (where it lives or grows) for it to thrive. It is also important to try to maintain a large enough population of an animal to maintain its genetic variety so that future generations will be healthy.

When the number of individuals in a species becomes dangerously low, or when a species has little of its natural habitat left to live in, it may get close to disappearing entirely – becoming extinct. These species are called "endangered". Right now there are about 700 native plants and animals on the endangered list.

Text 12

A PRODRUG FOR TREATING GLAUCOMA

An estimated two percent of the world's population over 40 years old has glaucoma. In the United States alone 50,000 persons are irreparably blind due to this disease. When it occurs, pressure builds up within the eye due to its inability to drain away enough of its natural fluids. The result is often loss of visual acuity, then blindness.

Glaucoma patients are usually given drugs that are chemically similar to the human hormone epinephrine. These help to relieve the pressure but cause a number of unwanted side effects, including cardiac stimulation and headaches. Also, their bio-availability is poor — a very large dose is required to achieve therapeutic effects because they will not easily pass through the cornea into the eye's interior.

Working with a class of compounds called "prodrugs", David McClure and his colleagues at Allergan Pharmaceuticals in Irvine, California, have developed an experimental drug that promises to be much more effective than existing drugs in the treatments of glaucoma.

A prodrug, first of all, is a chemical that is converted into an active drug within the body. McClure's prodrug breaks down into epinephrine within the body, but is more efficiently delivered to the interior of the eye than whole drugs because it passes through the cornea before conversion. It works in small doses and does not produce side effects. McClure is hopeful that after more testing, the drug can be marketed.

Text 13 NEVER TOO LATE TO QUIT SMOKING, STUDY FINDS

The scientist who produced most of the medical evidence of cigarette smoking causing lung cancer offered factual evidence that the damage it does to the lungs is reversed when smoking is stopped.

Dr. Oscar Auerbach got his new evidence by dissecting the lungs of 216 men who had died of causes other than lung cancer. Seventy-two had never smoked cigarettes, 72 were smokers when they died, and 72 had stopped smoking cigarettes at least five years before their deaths.

Each individual in the groups of 72 was "matched" with the other two groups as to age at death, occupation and residential history. The exsmokers and continued smokers were "matched" as to amounts smoked. Each set of lungs was cut into 55 sections covering the bronchial tree.

Technical difficulties reduced the potential of 11,880 sections to 10,861. These were examined microscopically for cellular abnormalities. Of the sections from continued smokers 97.8 per cent revealed abnormalities. Of ex-smokers' sections 66.6 per cent revealed them, while the total for men who had never smoked was only 25.7 per cent.

Dr. Auerbach displayed his new evidence in a paper delivered before the third Pan American Cancer Cytology Congress. He is a senior medical investigator at the Veterans Administration Hospital at East Orange, N.J.

His previous contributions to the scientific case against cigarette smoking were detailed post mortem microscopic studies of thousands of lungs from cigarette smokers, some of whom had died of lung cancer. They revealed consistent cellular abnormalities interpreted as "pre-cancerous" which were found in much smaller numbers in lungs from non-smokers. The other evidence against cigarette smoking is statistical.

Text 14 A VIRUS INFECTION IS LINKED TO A FORM OF DIABETES IN U.S.

Government scientists have shown that a virus infection can cause diabetes, a discovery that could lead to a vaccine to prevent some of the disease's worst cases.

The form of diabetes involved is "juvenile-onset", or insulin-dependent, diabetes. This is a different disease and a far more serious one than the milder adult onset diabetes that can generally be controlled by diet or drugs.

In the last five years, scientists increasingly believed that any one of several viruses — as well as other causes — could trigger juvenile-onset diabetes in susceptible persons.

Now, researchers at the National Institute of Health and the National Naval Medical Centre in Bethesda, Md., for the first time have isolated a plainly guilty virus — one from a 10-year-old Maryland boy who developed juvenile-onset diabetes and died within weeks.

In the New England Journal of Medicine these doctors and scientists say that *the Coxsackie virus* — and other kinds of viruses too — may infect hundreds of persons with little or no effect, but that the occasional susceptible person develops diabetes.

In an editorial in the same issue, Dr. Allan Drash of Pittsburgh Children's Hospital credits the NIH-Naval Centre team with finally "documenting" — or proving — that juvenile-onset diabetes can result from virus infection.

With other new insights, says Dr. Drash, this "highly important achievement could eventually lead to several further advances. These could include identification of some susceptible persons and immunization of some with a preventive vaccine, as well as development of drugs that could block the disease's worst effects — effects that can sometimes include early or eventual blindness, loss of limbs and heart disease, as well as death".

Text 15 LIQUID PROTEIN: A DEADLY DIET

It sounded logical in 1967 when several French physicians advocated using liquid protein as a dietary supplement for obese patients trying to lose weight by fasting. It no longer sounds very logical — or safe.

Liquid protein consists, essentially, of protein processed from the gelatin in cowhide or from some other source of connective tissue. It supposedly provides patients with just enough low-calorie nutrition to help them survive the rigors of near-starvation diets and has been reported to bring about remarkable weight losses with relatively minor side effects. In 1976 the liquid protein diet was popularized in a book called "The Last Chance Diet". During 1977 at least 100,000 Americans used liquid protein.

Toward the latter part of 1977, however, the diet was linked with a number of deaths.

How might the diet have caused these deaths? Apparently by triggering heart arrhythmias — excessively rapid beating of the ventricles of the heart accompanied by twitching (fibrillation) of fibers in the ventricles — resulting in heart failure, according to Bramah Singh and his colleagues at the University of California at Los Angeles School of Medicine. Their report is in the July 14 Journal of the American Medical Association. The precise means by which the diet creates these heart aberrations is not known, however. As Theodore Van Itallie, a physician at St. Luke's Hospital Centre in New York City, points out in an accompanying editorial, "It is not clear whether these effects of liquid protein diets occur because of some insidious dietary deficiency, e.g., of protein, potassium or a trace element, because of the presence of a toxic agent of some sort in the preparation, or because of some totally unexpected cause."

Part III

Section I

1. Изучите фразы, которые используются при составлении реферата. Опишите на русском языке речевые ситуации, в которых могут быть использованы эти фразы.

1.	The / an author
	The researcher
	The team of scientists

developed show(s) stress(es) highlight(s) accept(s) prove(s) support(s) report(s) compare(s) regard(s) detected confirmed point(s) out discuss(es) the fact ...
the idea ...
the advantages of smth.
the drawbacks of smth.
the side effects of smth.
the cause of smth.
pros and cons of smth.

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2. The experiment
The study
The research
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was intended was designed

to establish ...
to find out ...
to prove ...
to confirm ...
to consider ...
to assess ...
to evaluate ...

3. A/The (new)

method technique procedure has been/was developed ...
has been/was improved ...
consists of/in ...
allows to do ...
enables smb to do ...

4. The figures
The tables

show that ... illustrate that ...

5. The article outlines ...
The report highlights ...
The survey covers ...
The paper includes ...

- 6. The efficiency of ...
- 7. The approach to ...
- 8. The advantage/drawback of ...
- 9. The problem suggested for discussion is connected with, is related to smth.
- 10. It should be noted pointed out mentioned shown stressed acknowledged that ...
- 11. It is common knowledge that ...
- 12. It is doubted by smb that ...
- 13. The idea of ...
 The concept of ...
 is illustrated by smb.
 is considered by smb.
 is based on smth.
- 14. The importance of ... is stressed by smb/smth.
- The investigation
 The discovery
 The trial
 The study

 The experiment reveals ... provides ... confirms ...
- 16. It was concluded that ... recommended to do ...
- 17. The general conclusion is ...
- 18. In conclusion, the author ...
- 19. To summarise the observation, the author ...
 - 2. Составьте предложения с фразами из упражнения 1 к текстам части II данного учебного пособия.

Section 2

Text 1

I. Прочитайте текст и завершите утверждения, представленные после текста (с. 73, 1–2), в соответствии с его содержанием. Обоснуйте свой выбор.

TAKE A WALK

- A. If a pill could significantly lower the risk of heart attack, diabetes, stroke, osteoporosis and breast and colon cancer while reducing weight, cholesterol levels, constipation, depression and impotence and also increase muscle mass, flatten the belly and reshape the thighs *even* as *it* reduced the risk of age-related dementia and made you better-looking and had no negative side effects there would be panic in the streets. The economy would tip into chaos. The military would have to be called in to secure supplies of the medication.
- **B.** Luckily, there is no such pill.
- C. But a large and growing *body* of credible research demonstrates that taking a good walk most days of the week can deliver all of the health benefits cited above and more (*although* we admit the "betterlooking" part is harder to prove).
- **D.** Yes, walking. You know: one foot in front of the other, repeat, rinse, repeat. A mode of exercise formerly considered the domain of the elderly, the infirm and others incapable of or unwilling to do anything more brow dampening. What's difficult to figure is why so many people do not bother to do it.
- E. According to the Centres for Disease Control and Prevention (CDC), somewhere near 75 per cent of the U.S. population fails to get 30 minutes of daily exercise, whether that's walking or some more strenuous form of sport or recreation. Approximately one-third live a life officially defined as sedentary. Worse is the recent news that 30 minutes a day may not be enough.
- F. Why we're not out there walking is a mystery. It is, after all, virtually free, safe, pleasant, easy to do and hard to get wrong. It requires no special equipment except (maybe) a pair of shoes. So why are we, Americans, avoiding it (and other less popular forms of moderate physical exercise) to the point that we're creating an epidemic of obesity and scary upticks in the many diseases and conditions associated with it? Could it be that we've filled our lives so full of work and other obligations that we have no energy left for the one thing most likely to keep us strong and healthy for the daily battle? Can it be that nobody

Part III

- figures out how to make much money from other people's walking habits, so there's no great commercial force urging us to walk, nothing comparable to the marketing efforts trying to get us to drink sodas, order pizzas and buy new cars?
- G. We used to think that exercise had to hurt, and you had to bleed and throw up to accomplish anything. But all of the research fails to answer the question of how something so simple can have such salutary effects. As soon as you take that first step, a host of metabolically significant events is set in motion inside your body.
- H. According to Greg Heath, lead scientist in the CDC's physical activity and health branch, early in your walk your adrenal glands begin secreting adrenaline, which gets into your bloodstream and signals your heart to beat faster and causes your blood pressure to go up. The heart then begins to pump more blood away from the chest and into the muscles of the limbs you're using to get yourself down the street. As a result, blood vessels in the arms and legs begin to expand as they are fed more nutrients and oxygen by the blood. As your heart rate climbs, you're taking more breaths per minute, sometimes increasing your oxygen intake to 10 times the amount you'd be taken in if you were sitting still. As the muscles receive more blood, they begin to use up carbohydrates and sugar starches they've stored. Metabolism the process by which the body breaks down materials and converts them to fuel speeds up. As a result, so does digestion.
- I. All this activity causes the brain to release endorphins into the bloodstream. Endorphins, which have chemical properties similar to opium, are responsible for blocking pain and ushering in that cosy senses of well-being you feel as soon as your walk ends. Additionally, exercise causes the brain to release an abundance of the neurotransmitter serotonin, which works to elevate mood.
- J. And that's all during the course of one walk. If you walk regularly, you can expect exponentially more benefits. Your heart muscle will grow stronger and better able to deliver more oxygen to the *body* during periods of rest. The lungs, capillaries and vessels along the oxygen transport pathway will expand to handle more capacity, bringing more oxygen to more parts of the body more often, *a process* that has been linked to reductions in the risk of cardiovascular disease. Blood pressure drops within 24 to 48 hours of exercising, and will stay down with continued exercise. The risk of blood clots also drops and stays lower if you keep the walking up. Circulation improves, which makes digestion more efficient. The body becomes better at getting glucose into the

muscles where it's needed, thus smoothing out blood sugar levels and helping the body *process* fat. The body gets better at converting fat into energy, so you lose weight more easily than dieting alone.

- K. In addition, regular walking, especially the more vigorous sort, increases lean muscle mass, which consumes more energy than a similar amount of fat, thereby helping you maintain a healthy weight. Regular exercise can also help you sleep better, which in turn delivers its own set of health benefits. All of which is to say, once you get going with a regular walking programme, your body becomes a kind of self-improvement machine.
- L. Walking is something you can do even when your life circumstances have been changed when you're pregnant, injured or older. Most people remain capable of walking throughout life, even if they have to do it more slowly or with assistance.
- M. If all these reasons seem too self-centred, try this *one*: civic activism. A community that has plenty of people walking around is usually a safe community and *an economically vibrant one*, *as* walkers tend to keep their eyes open and partake in a bit of retail along the way. It's also full of the kind of social interaction many other communities lack, as chance encounters lead to conversation and greater awareness about the other people in the area.
- N. Which is to say, *in addition to* everything else, walking can make the world a better place. But don't worry about that for now. Look up. See the nearest door leading outside? That's your first target.
- 1. The author is speaking about...
- a chemical method of treatment
- pros and cons of physical exercise
- efficiency of walking
- 2. The author thinks...
- there exists a multi-functional drug without side effects
- there cannot be a multi-functional drug without side effects
- a multi-functional drug without side effects has not been developed yet
- 3. The author recommends to begin with...
- speaking to other people about their walking experience
- becoming socially active
- leaving home to walk

- II. Выполните задания, при необходимости обращаясь к тексту.
- 1. Разберите предложения по составу.
- What's difficult to figure is why so many people do not bother to do it.
- Why we're not out there walking is a mystery.
- So why are we, Americans, avoiding it to the point that we're creating an epidemic of obesity and scary upticks in many diseases and conditions associated with it?
- Worse is the recent news that 30 minutes a day may not be enough.
- As a result, so does digestion.
- Endorphins, which have chemical properties similar to opium, are responsible for blocking pain and ushering in that cosy sense of wellbeing you feels as soon as your walk ended.
- All of which is to say, once you get going with a regular walking program, your body becomes a kind of self-improvement machine.
- Which is to say, in addition to everything else, walking can make the world a better place.

2. Укажите определяющие и определяемые слова в следующих словосочетаниях:

to do anything more brow dampening, from other people's walking habits, to have chemical properties similar to opium, blood sugar levels, a regular walking program, the nearest door leading outside, there's no great commercial force urging us to walk

- 3. Определите, какой частью речи является слово *process* в каждом из двух случаев его употребления в абзаце *J*.
- 4. Определите, какое грамматическое значение вносят слова *could* и *would* в контекст абзаца *A*.
- 5. Определите значения слова *one* в абзацах D, F, M.
- б. Установите функции слова *it* в предложениях абзацев *A*, *D* и *F*. Укажите, какими полнозначными словами можно заменить это местоимение.
- 7. Определите значения слова as в абзацах M и I.
- 8. Укажите значения слова use в двух случаях его употребления в абзаце H.
- 9. Установите значения слова body в абзацах С и Ј.
- 10. Определите, в каком смысле, прямом или переносном, автор использует выделенные слова во фразах:
 - a life ... defined as sedentary (абзац Е)
 - you had to bleed and throw up (абзац G)
 - heart rate climbs (абзац Н)
 - economically vibrant (абзац М)

- 11. Установите, подразумевает ли автор удачу, используя слово luckily в абзаце B, и согласие, используя слово yes в абзаце D.
- 12. Найдите в абзацах E и F слова, которые указывают на то, что автор не располагает точной информацией или сомневается в правильности суждений.
- 13. Укажите, какие смысловые отношения устанавливаются между фрагментами информации в тексте при помощи следующих слов и словосочетаний:

even as (абзац A), according to (абзацы E и H), although (абзац C), except (абзац F), so (абзац F), as a result (абзац H), in addition (абзацы K и N).

- Выполните письменный перевод текста, используя словарь.
- IV. Проведите реферативную обработку текста.
 - 1. Поясните, в каком ракурсе автор планирует рассмотреть ходьбу, озаглавив текст "Take a Walk".
- 2. Разделите текст на четыре смысловые части. Сформулируйте устно на английском языке основную идею каждой части и укажите смысловую взаимосвязь частей текста и идеи, предусмотренной в заголовке текста.
- 3. Сформулируйте устно на английском языке основную идею каждого абзаца и поясните ее связь с основной идеей соответствующей части текста.
- 4. Укажите, какая информация в тексте является наиболее важной для раскрытия авторского замысла, сформулированного в заголовке.
- 5. Изложите реферативно содержание текста в письменной форме на английском языке, придерживаясь схемы: вводное предложение тезис аргументы выводы. Используйте фразы из списка, приведенного в разделе I данной части учебного пособия, и необходимые по смыслу слова-связки.

Text 2

I. Прочитайте текст и завершите утверждения, представленные после текста(с. 80, 1—3), в соответствии с его содержанием. Обоснуйте свой выбор.

THE FIVE MYTHS OF AGING

- A. If you were an alien visiting our planet, you might think Earthlings never age. Even now, when awareness about aging rises, most major magazines and television stations still fail to display vital older people. Medical journals, on the other hand, harp on the infirmities of old age. It's a wonder we fear and even deny our own inevitable aging.
- B. Growing older can't be avoided, but it doesn't have to mean the loss of health, mind and independence. In fact, research seems to indicate the opposite. By paying a little attention to lifestyle, most older individuals can live active, healthy lives and we can all shatter those old age myths.

Myth # 1: When I get old, I'll become senile

- C. Many of us view the elderly as doddering old creatures, unable to think for themselves and constantly forgetting the most mundane things. In reality, senility only strikes five per cent of Americans. The other piece of good news is that some age related declines in mental functioning can be prevented or even reversed.
- D. When scientists from Tufts University reviewed a number of studies, they discovered that vitamin deficiencies account for many of the symptoms of senility. Just as vitamins are needed for normal nervous system development in children, they are required for normal neurological functioning in adults. For example, low folate levels in the elderly can cause forgetfulness, irritability and possibly depression. Vitamin B6, a nutrient required to make many neurotransmitters, may lead to peripheral neuropathy (a disorder of the nervous system where the limbs feel numb or tingle) if deficient. The nutrient that ensures nerves are protected with a myelin sheath, vitamin B12, can be responsible for delusions and mood disturbances when levels fall below normal.
- E. Most of us think that nutrition *must* be poor before these kinds of deficiencies *show up*. However, researchers have found that seemingly healthy, elderly subjects can still exhibit low vitamin levels. In fact, an older individual can be lacking in certain vitamins for years without any hint of a deficiency. Symptoms, mental or otherwise, may not show

up immediately and even the usual blood tests employed to detect *lagging* nutrients are not always reliable.

Myth # 2: Old age means losing all my teeth

- **F.** If you're not worried about losing your mind when you're old, you might fret about losing your teeth. Periodontitis, or late stage gum disease, is the primary cause of tooth loss in adults. This condition commonly begins as gingivitis where gums *turn* red and begin to swell and bleed, a situation experienced by too many people. Fortunately healthy gums and avoiding false teeth are both reasonable goals.
- G. The elderly of today are much more likely to keep their teeth than previous generations. *Even so*, dental disease is prevalent. The New England Elders Dental Study found the beginnings of periodontal disease in over 3/4 of the 1150 persons examined. Part of the problem, said these investigators, was that education and dental care for this population are overlooked *by both* dentists and *the* patients themselves.
- H. The sad part of this situation is that proper dental hygiene and regular cleanings by the dentist are usually enough to stave off infection. Another simple and inexpensive way of preventing or at least halting the *progression* of periodontal disease is to store and replace your toothbrush properly. *Although* most of us are in the habit of keeping our toothbrush in the bathroom, this is not recommended. Bathrooms are the most contaminated room in the house. Healthy people should replace their toothbrushes every two weeks; those with a systemic or oral illness more often. Everyone should use a new toothbrush when they get sick, when they feel better and again when they completely recover.
- I. Finally, an important aspect of both dental and general health is immunity. It has been determined that a suppressed immune system is associated with the rapid progression of periodontal disease. A Midwestern research group found that cigarette smoking was one habit that dragged down immunity and sabotaged periodontitis treatment. Other lifestyle behaviors that theoretically could do the same include poor eating habits, stress and other immunity depressors.

Myth # 3: The older I get, the sicker I'll get

J. It's true that as we age, our physiology changes. These changes can lead to poor health if not addressed. But old age doesn't have to mean feeling sick and tired. An important part of staying well into the older years is keeping your immune system operating at its peak.

- K. Aging is generally associated with lagging immunity and consequently more infections especially of the respiratory system. However, Professor John Hopkins discovered that when independent, apparently healthy, *elderly* people were fed nutritional supplements for a year, their immunity improved. Those who were supplemented (versus the placebo group) were plagued with less infections and took antibiotics for less days.
- L. It *should* be noted that these effects were achieved with a moderate amount of nutrients in a balanced formula; mega doses of some vitamins can impair immunity.
- M. Besides taking care of your immunity with supplementation, diet, exercise and etc., you can prevent many age-related diseases specific precautions. For example, there is evidence that smoking and low plasma levels of vitamins C and E, and beta-carotene contribute to cataracts. Dr. Dean Ornish showed that a one-year program of no smoking, moderate exercise, stress management and low-fat vegetarian diet may reverse the development of coronary atherosclerosis. Left untreated, atherosclerotic plagues usually continue to grow.
- N. Many other chronic diseases can also be prevented or treated with lifestyle changes. Calcium and magnesium supplementation helps individuals with hypertension. Most patients are helped by high potassium foods (fruits and vegetables), salt restriction and weight maintenance. Keeping blood pressure under control can also decrease the risk of a stroke.
- O. Half of all types of cancer are linked to diet. This explains why less fat, lots of fruit, vegetables and fibers, vitamins A, B6, C and E and zinc and selenium all appear to play a role in cancer prevention.

Myth # 4: When I get old, even lifestyle changes won't help me

- P. It's a mistaken notion that at certain age, you reach the lifestyle modification point of no *return*. If you've used this as an excuse *to cling to* old, comfortable, but unhealthy habits, *it's time to let go*. Of course, it's always best to live as healthy as possible as young as possible. But for those in their golden years, there's *still* plenty of hope.
- Q. Two of the most difficult habits to break, smoking and sedentary lifestyle, can, when discarded, yield great health results. In 1990 scientists declared that "even people who quit smoking at older ages can expect to *enjoy* a longer and healthier life compared with those who continue to smoke".

- R. Those who continue to smoke should be aware of the numerous advantages of quitting. In as little as 20 minutes, blood pressure, pulse and body temperature all *return* to normal. Eight hours later, oxygen levels in the blood rise. After a day, the chance of a heart attack decreases. In five years, the risk of lung cancer falls to about half and in five more years lung cancer risk almost parallels that of a never-smoker. All these changes occur no matter what your age when you quit.
- S. Frailty in the older person can't be totally blamed on aging. At least some weakness occurs because of physical inactivity. A regular *exercise* program not only decreases the risk of chronic illness, but can help prevent early death. Those who begin exercising can *slow* or even reverse organ deterioration.
- T. When elderly individuals *exercise*, they reap a number of health rewards. Aside from fighting chronic diseases, their heart is stronger, muscles are more fit and flexible, mood is enhanced and fractures are less frequent. While exercise *alone* probably doesn't significantly extend life beyond 80 years old, it can improve your quality of life.

Myth # 5: As long as I maintain the eating regimen I had when I was younger, I'll stay healthy

- U. Perhaps one of the biggest mistakes of elderly people is that nutritional needs don't change with age. Just as children and teens have different dietary requirements than adults, so do the elderly differ in their needs from younger individuals.
- V. Experts are still arguing about what and if diet needs change with age. *In result*: anywhere between 0 and 40 per cent of the independent elderly are nutritionally deficient. A number of factors *feed into poor dietary intake*. Chronic diseases, both physical and mental, can cause nutritional problems. Various medications can impair food digestion or discourage eating due to loss of appetite. If you wear ill-fitting dentures, pain can prevent you from eating. Elderly who live alone may feel isolated and uninterested in eating.
- W. But even if you are older but healthy, the very process of aging alters your metabolism and physiology. Stomach acid declines, thus affecting some nutrient absorption. Many older people feel full quicker because of an increased sensitivity to the "satiety peptide", cholecystokinin octapeptide. Aging also dampens the body's appetite centre, and consequently eating. Finally, it's suspected that an older palate doesn't detect those tastes that drive us to the dinner table: salt and sweet.

- X. Aging is inevitable. Poor health is not. Regular exercise, healthy eating (appropriate for your age) and a lucky roll of the genetic dice can help you to stay in old age with grace and good health.
- 1. The author thinks...
- poor health is inevitable when we get older
- aging is inevitable
- aging can be prevented
- 2. The author considers...
- physical and mental changes in the human body
- changes in the human body which occur with age and how to prevent them
- changes in the human body which occur with age and how to address them.
- 3. The author recommends...
- to put up with health deterioration with age
- to change life completely with age
- to take care of our lifestyle bearing in mind changes in the human body which occur with age
- II. Выполните задания, при необходимости обращаясь к тексту.
- 1. Разберите предложения по составу.
- It's a wonder we fear and even deny our own inevitable aging.
- Fortunately healthy gums and avoiding false teeth are both reasonable goals.
- The sad part of this situation is that proper dental hygiene and regular cleanings by the dentist are usually enough to stave off infection.
- Another simple and inexpensive way of preventing or at last halting the progression of periodontal disease is to store and replace your toothbrush properly.
- Keeping blood pressure under control can also decrease the risk of a stroke.
- It is a mistaken notion that at a certain age, you reach lifestyle modification point of no return.
- Two of the most difficult habits to break, smoking and a sedentary lifestyle, can, when discarded, yield great health results.
- All these changes occur no matter what your age when you quit.
- Experts are still arguing about what and if diet needs change with age.

2. Укажите определяющие и определяемые существительные в следующих словосочетаниях:

vitamin levels, blood tests, gum disease, tooth loss, research group, periodontitis treatment, lifestyle behaviours, plasma levels, stress management, cancer prevention, food digestion, stomach acid, dinner table, oxygen levels, lung cancer risk, weight maintenance

3. Определите, какими частями речи являются слова в каждом из двух случаев их употребления:

changes (абзац J), age (абзац I), exercise (абзацы S и T), elderly (абзацы D и K), return (абзацы P и R), alone (абзацы T и V)

- 4. Определите грамматическое значение конструкции if you were ... you might в aбзаце A.
- 5. Укажите значения модальных глаголов *must* в контексте абзаца E, *should* в контексте абзаца L и *could* в контексте абзаца I.
- 6. Определите контекстуальные значения слов:
 paying (абзац В), mundane (абзац С), lagging (абзац Е), turn (абзац F), poor (абзац I), still (абзац Р), enjoy (абзац Q), feed (абзац V)
 - 7. Обоснуйте выбор автором слова progression, а не development или progress в абзаце H.
 - 8. Укажите, как автор характеризует деятельность медицинских журналов, используя глагол *harp* в абзаце *A*.
 - 9. Установите значения фразовых глаголов:
 - think for (абзац C)
 - account for (абзац D)
 - show up (абзац Е)
 - drag down (абзац I)
 - cling to (абзац Р)
- 10. Укажите значения фраз, исходя из содержания текста:
 - it's time to let go (абзац P)
 - a lucky roll of the genetic dice (абзац X)
- 11. Укажите, какие смысловые отношения устанавливаются между фрагментами информации в тексте при помощи следующих слов и словосочетаний:

on the other hand (абзац A), for example (абзац D), however (абзац E), even so, both ... and (абзац G), although (абзац H), finally (абзац I), besides (абзац M), in result (абзац V)

- III. Выполните письменный перевод текста, используя словарь.
- IV. Проведите реферативную обработку текста.
 - 1. Укажите абзацы, являющиеся введением и заключением в тексте. Определите их смысловую взаимосвязь и сформулируйте устно на английском языке основную идею текста.
- 2. Поясните на английском языке смысловую связь каждого раздела текста, описывающего мифы старения, с основной идеей текста.
- 3. Сформулируйте устно на английском языке основную идею каждого абзаца, поясните ее связь с основной идеей соответствующего раздела текста и роль в раскрытии темы раздела.
- 4. Изложите реферативно содержание текста в письменной форме на английском языке, придерживаясь схемы: вводное предложение тезис аргументы выводы. Используйте фразы из списка, приведенного в разделе I данной части учебного пособия, и необходимые по смыслу слова-связки.

Text 3

1. Прочитайте текст и завершите утверждения, представленные после текста (с. 85, 1–3), в соответствии с его содержанием. Обоснуйте свой выбор.

FIRST HUMAN EMBRYOS ARE CLONED IN U.S.

- A. Scientists in Massachusetts said they had succeeded in creating the world's first cloned human embryos, a controversial advance intended to speed the development of new medical therapies but which could also hasten the arrival of the first cloned baby.
- B. The cloned human embryos, made by researchers at Advanced Cell Technology in Worcester (ACT), grew for only a few hours long enough to form microscopic *balls*: containing just four to six cells each. The creations made from the fusion of a single human cell and a human egg are still so unformed that some ethicists and scientists remain divided over whether they should be called embryos and to what extent they *may* deserve special moral standing.
- C. Nonetheless, the work broke enough new scientific and ethnical ground to reignite a long-simmering debate over human cloning.
- **D.** The use of federal funds to conduct research on human cloning is now illegal, but privately funded scientists such as those at ACT are under no such restriction.
- E. Michael West, ACT's chief executive, has repeatedly said he has no interest in making cloned human babies. Rather, the goal is to coax cloned embryos to grow for just a few days, then isolate from them embryonic stem cells, which have the capacity to grow into all kinds of human tissues a process called therapeutic cloning.
- **F.** Typically an embryo *must* grow to a mass of a few hundred cells before it *gives rise* to stem cells.
- G. But the work breaks new scientific ground by demonstrating that a single cell taken from a human adult can be coaxed to turn into what appears to be a healthy young embryo a feat until now accomplished only in farm animals and mice. And it breaks new ethical ground by creating the beginnings of a human being from a single parent a step that many people have said is, at minimum, morally precarious.
- H. The only previous report of such an experiment was by South Korean scientists in 1998. But that work was never published in a scientific venue, and some experts *have questioned* whether it was as successful as the scientists there *had reported*.

- I. Scientists involved in the latest work said that it was justified because they and the company's ethic advisory board had concluded that the creations did not have the same moral standing as conventional human embryos and because the creations had such great potential to reduce human suffering.
- J. "This work sets the stage for human therapeutic cloning as a potentially limitless source of immune-compatible cells for tissue engineering and transplantation medicine," said Robert Lanza, vice-president of medical and scientific development at ACT. "Our intention is not to create cloned human beings, but rather to make life-saving therapies for a wide range of disease conditions, including diabetes, strokes, cancer, AIDS, and neurodegenerative disorders such as Parkinson's and Alzheimer's disease."
- K. Some *spoke out* in favour of the work. "We believe that reproductive cloning should be prohibited but therapeutic cloning (the cloning of embryos to retrieve their stem cells) *should* be allowed to go forward with oversight by the Food and Drug Administration," said Carl Feldbaum, president of the Biotechnology Industry Organization.
- L. Antiabortion religious groups spoke out against the work. "We're moving towards artificially creating human embryos solely to mine them for spare parts solely to destroy them for their cells," said Richard Doerflinger of the U.S. Conference of Catholic Bishops.
- M. Cloning involves the creation of an embryo from a single adult cell. In the most commonly used technique the one used to create Dolly the sheep, the first cloned mammal the adult cell is fused with an egg cell whose own genetic material has been removed.
- N. Other individuals were asked to donate skin cells the cells from which the clones would grow and the researches tried to fuse some of those cells with eggs.
- O. After three such attempts failed to generate an early embryo, the researchers took a tip from a University of Hawaii team that cloned mice using cells other than skin cells as their donor cells. They had used a kind of cell that grows inside the ovaries, and which appears to be amenable to being cloned when fussed with an egg.
- **P.** All told, the researchers went through 71 egg cells from 7 volunteers before they got alive embryo to grow. Ultimately they managed to get three early embryos to grow two that got to the four cell stage and one that grew to "at least" six cells, the report said.

- Q. All three early embryos apparently died after that. It remains unclear whether they *harbored genetic or other defects* related to the cloning process that *might* have prevented them from maturing.
- **R.** The same research team also used a second technique to try to clone embryos. Using chemicals, they forced some human eggs to start dividing *on their own*, as though they had been fertilized by sperm.
- S. In those experiments, which involve a process called parthenogenesis, the researchers got six out of 22 eggs to grow into what appeared to be five-day-old embryos old enough to contain stem cells. But for reasons that remain unclear, those embryos lacked the inner cell mass that usually contains embryonic stem cells.
- T. Clonaid, a second company, said it, too, had cloned human embryos and hopes to eventually create fully-developed human clones. Its research has not been published, and Clonaid has not revealed the location of its lab.
- U. Clonaid director Brigitte Boisselier told the Associated Press that its embryos were created by injecting eggs with a variety of other cells, but she refused to give details.
- 1. The author says the research on cloning...
- must be banned
- can be used for therapeutic purposes
- must be aimed at creating fully-developed human clones.
- 2. Scientists in US...
- use federal funds to conduct research on cloning
- have produced a fully-developed human clone
- have cloned embryos for medical therapies
- 3. Research on cloning...
- is illegal
- is under control of ethicists
- is favoured by religious groups
- II. Выполните задания, при необходимости обращаясь к тексту.
- 1. Разберите предложения по составу.
- Scientists in Massachusetts said that they had succeeded in creating the world's first cloned human embryos, a controversial advance intended to speed the development of new medical therapies but which could also hasten the arrival of first cloned baby.

- Scientists involved in the latest work said it was justified because they and the company's ethics advisory board had concluded that the creations did not have the same moral standing as conventional human embryos and because the creation had such great potential to reduce human suffering.
- Clonaid, a second company, said it, too, had cloned human embryos and hopes to eventually create fully-developed human clones.
- Clonaid director Brigitte Boisselier told the Associated Press that its embryos were created by injecting eggs with a variety of other cells, but she refused to give details.
- 2. Определите, к какой части речи следует отнести приведенные ниже слова, исходя из контекста их употребления. Укажите суффиксы в словах.

development, researcher, creation, ethicist, scientific, ethical, restriction, executive, capacity, typically, healthy, morally, precarious, successful, advisory, conventional, potential, potentially, limitless, compatible, reproductive, therapeutic, religious, solely, genetic, early, live

- 3. Укажите значение перфектных форм глагола в абзацах A, E, H, I, M, O.
- 4. Определите значение формы настоящего длительного времени в абзаце L.
- 5. Укажите грамматическую функцию слова would в абзаце N.
- 6. Определите значения модальных глаголов:

could (абзац A), may (абзац B), must, turn (абзац F), can (абзац G), should (абзац K), might (абзац Q)

7. Определите контекстуальные значения слов:

arrival (абзац A), balls (абзац B), coaxed (абзац F), turn (абзац G), mine (абзац L)

- 8. Установите значения фразовых глаголов:
- grow into (абзац E)
- turn into (абзац G)
- speak out (абзац К)
- 9. Укажите значения фраз, исходя из содержания текста:
- gives rise (абзац F)
- breaks ... ground (абзац G)
- sets the stage (абзац **J**)
- a wide range (абзац J)
- spare parts (абзац L)

- took a tip from (абзац О)
- harboured defects (абзац Q)
- on their own (абзац **R**)
- 10. Укажите, какие смысловые отношения устанавливаются между фрагментами информации в тексте при помощи следующих слов и словосочетаний:

nonetheless (абзац \mathbf{C}), rather (абзац \mathbf{E}), all told, ultimately (абзац \mathbf{P}), but for reasons (абзац \mathbf{S}), too (абзац \mathbf{T})

- III. Выполните письменный перевод текста, используя словарь.
- IV. Проведите реферативную обработку содержания текста.
 - 1. Назовите на английском языке, какие аспекты достижения американских ученых, объявленного в заголовке, рассматриваются в статье. Сформулируйте основную идею статьи.
 - 2. Укажите, какие абзацы посвящены каждому из предлагаемых в статье достижений американских ученых в области клонирования. Сформулируйте устно на английском языке основную идею каждой из выявленных групп абзацев.
 - 3. Отберите в тексте факты, наиболее значимые для описания исследовательской работы американских ученых в области клонирования. Поясните свой выбор на английском языке.
 - 4. Изложите реферативно содержание текста в письменной форме на английском языке, придерживаясь схемы: вводное предложение тезис аргументы выводы. Используйте фразы из списка, приведенного в разделе I данной части учебного пособия, и необходимые по смыслу слова-связки.

Text 4.

1. Прочитайте текст и завершите утверждения, представленные после текста (с. 90, 1–3), в соответствии с его содержанием. Обоснуйте свой выбор.

LIVING DONOR TRANSPLANTS: SO SUCCESSFUL, NO MATCH NEEDED

- A. The kidney transplant is now accepted as the optimal treatment for the rapidly growing population of Americans more than 243,000 whose own kidneys have stopped working. It is now being used in higher-risk patients and in patients once considered poor matches with available donor organs.
- B. "Compared with 20 years ago, thanks to improvements in surgery as well as better treatments for organ rejection and other complications, we're able to achieve much better survival of transplanted kidneys," said Bertram L. Kasiske, a kidney specialist and professor of medicine at the University of Minnesota. "It's an area that is so much fun to work in, because there has been such remarkable progress."
- C. Without a transplant, someone whose kidneys have failed *must* regularly undergo a treatment called dialysis to remove toxic chemicals that *build up* in the bloodstream. In the most widely used method, hemodialysis, *a patient is hooked up to a machine* several times a week and impurities are removed as the person's blood flows through the device. In peritoneal dialysis, usually done at home, *the patient runs* saline solution into the abdominal cavity through a catheter, then allows it to drain out, removing impurities. Although dialysis keeps people alive, *it carries significant risks* and *does* not purify the blood *as well as* a kidney.
- D. A transplant improves both life expectancy and quality of life. With highly effective new drugs to prevent organ rejection, 9 out of 10 transplanted kidneys are working well a year after surgery. Many last 10 years, 20 years or longer. (Indeed, the longest-surviving transplanted kidney, given to a patient in 1963, functioned for almost 35 years.)
- E. People who receive a new kidney are liberated from the relentless routine of dialysis treatments, feel better and live more normally as well as saving society money. More important, transplants save lives. There is solid evidence that organ recipients have lower mortality rates than people who remain on dialysis.
- F. A 7 per cent annual increase in the number of Americans with kidney failure has *fueled* a demand for kidneys that grows greater every

- year. More than 50,000 people are waiting for a kidney, according to data maintained by the United Network for Organ Sharing (UNOS).
- G. For those on the UNOS waiting list, the average wait for a kidney from a cadaver is more than three years. Cadaver organs are awarded according to a complicated system that partly depends on tissue match. Despite efforts to persuade more Americans to donate their organs after death, the demand far exceeds the supply of organs currently recovered from people who die. In recent years, the critical need for kidneys and other organs has shifted the thinking of transplant surgeons and ethicists about accepting organs from people who are alive. Last year in the United States, 5,700 people served as "living donors", compared with 5,984 whose organs were recovered after their death. If the recent trend continues, more organs may soon be given nationally by living donors than by donors who have died.
- H. And it has become increasingly common for a living donor to be unrelated to the recipient. Blood relatives, of course, are more likely to have genes in common, making a partial tissue match more probable. But with the recent development of improved anti-rejection drugs, tissue-matching has become less critical to the survival of a transplanted kidney, especially if the kidney comes from a living donor.
- I. Some degree of tissue match *does* improve *the odds* of the transplant's long-term survival. But *as long as* donor and recipient have compatible blood groups, an unmatched kidney from a living donor has virtually the same likelihood of lasting five years as a perfectly matched cadaver kidney. In each case, the five-year survival of the transplanted organ is about 71 per cent. (*For comparison*, the five-year survival of a perfectly matched living-donor kidney, which is rarely available, is 87 per cent.) The lifespan of a living-donor kidney *can be* 15 to 20 years, as opposed to 7 to 10 years for a cadaver kidney.
- J. Living-donor kidneys have advantages because factors other than tissue compatibility contribute to the organ's long-term health. Since kidneys are in such short support, cadaver kidneys are accepted even from elderly donors with significant health problems, from people who suffered a stroke or hemorrhage.
- **K.** "The living kidneys generally are better kidneys," said Kasiske. "They come from healthy people who have, generally, less damage to their kidneys than donors of cadaver kidneys."
- L. In addition, a living-donor kidney is far less likely to have suffering inadequate blood flow for a long period, because it is transplanted as

- soon as it removed. "You don't have to store the kidney and put it on ice for a while before transplant," Kasiske said.
- M. In the past decade, most transplant programs began accepting kidneys from living donors who are not blood relatives initially from spouses, then from friends or colleagues, people whom Kasiske calls "emotionally related".
- N. Because removing kidneys with laparoscopic surgery has dramatically shortened donors' recovery time, more people have become willing to donate. It takes six weeks to recover following removal of a kidney by conventional surgery. With laparoscopic surgery, there were some people "who were done on Friday and went back to work on Monday".
- O. For a healthy person, the major risks of donating a kidney are the small chances of anesthesia complications or of bleeding or infection from the surgery.
- P. Before any organ transplant, the recipient and potential donor undergo a test called tissue-typing, in which six proteins present on the surface of human cells are analyzed. If some or all of a donor's cell-surface proteins match those of the recipient, the chances are smaller that the recipient's immune system will attack the transplanted organ, causing rejection.
- Q. As for the ethics of allowing someone other than a family member to donate a vital organ, this really gets into the whole issue of what we should and shouldn't do. There are still some transplant surgeons around who say that this is unethical and that we should not do surgery on an otherwise healthy person.
- 1. According to the article, patients with kidney transplants...
- are cured completely
- need to undergo dialysis regularly
- live longer and their life quality is improved
- 2. The article says that dialysis...
- is absolutely safe
- can be carried out both at home and in hospital
- has a bad impact on the human body
- 3. The article focuses on the advantages of...
- an artificial kidney transplant
- a kidney transplant taken from a dead person
- a kidney transplant from a living donor

II. Выполните задания, при необходимости обращаясь к тексту.

- 1. Разберите предложения по составу.
- It is now being used in high-risk patients and in patients once considered poor matches with available donor organs.
- Without a transplant, someone whose kidneys have failed must regularly undergo a treatment called dialysis to remove toxic chemicals that build up in the bloodstream.
- In peritoneal dialysis, usually done at home, the patient runs saline solution into the abdominal cavity through a catheter, then allows it to drain out, removing impurities.
- Blood relatives, of course, are more likely to have genes in common, making a partial tissue match more probable.
- Before any organ transplant, the recipient and potential donor undergo a test called tissue-typing, in which six proteins present on the surface of human cells are analyzed.

2. Укажите определяющие и определяемые слова в следующих словосочетаниях:

the kidney transplant, the rapidly growing population, donor organ, organ rejection, the most widely used method, life expectancy, highly effective new drugs, dialysis treatment, society money, lower mortality rates, tissue match, blood relatives, improved anti-rejection drugs, the transplant's long-term survival, living-donor kidneys

- 3. Укажите значения форм настоящего длительного времени в абзацах A, D, F.
- 4. Поясните выбор автором модальных глаголов и словосочетаний в каждом из указанных случаев их употребления:
- возможность совершения действия *are able* (абзац **B**), *may* (абзац **G**), *can* (абзац **I**);
- долженствования must (абзац C), should (абзац Q).
- 5. Определите значения слова *does* в абзацах C и I, а также do в абзаце Q и done в абзаце N.
- б. Определите контекстуальные значения слов:

keeps (абзац \mathbf{C}), last (абзац \mathbf{D}), solid (абзац \mathbf{E}), awarded, far (абзац \mathbf{G}), comes (абзац \mathbf{N}), odds (абзац \mathbf{I}), short (абзац \mathbf{J}), dramatically, following (абзац \mathbf{N}), around (абзац \mathbf{Q})

- 7. Укажите значения следующих фраз в абзаце C, исходя из содержания текста:
- a patient is hooked up to a machine
- the patient runs saline solution

- · keeps people alive
- it carries ... risks
- 8. Определите, в каком смысле, прямом или переносном, автор использует слова *fun* (абзац *B*) и *fuel* (абзац *F*).
- 9. Установите значения фразовых глаголов:
- build up (абзац С)
- get into (абзац **Q**)
- 10. Укажите, какие смысловые отношения устанавливаются между фрагментами информации в тексте при помощи следующих слов и словосочетаний:

although, as well as (абзац C), both ... and, indeed (абзац D), according to (абзац F), despite (абзац G), but (абзац H), as long as, for comparison (абзац I), other than, since (абзац J), in addition (абзац L), because (абзац N), as for (абзац Q)

- III. Выполните письменный перевод текста, используя словарь.
- IV. Проведите реферативную обработку содержания текста.
 - 1. Объясните, в каком ракурсе автор намерен рассмотреть проблему использования органов живых доноров для трансплантации. Сформулируйте устно на английском языке основную идею текста.
 - 2. Сформулируйте устно на английском языке основную идею каждого абзаца и поясните последовательность рассуждений автора.
 - 3. Объедините абзацы, посвященные рассмотрению одного и того же аспекта основной идеи текста. Сформулируйте устно иа английском языке основную идею каждой группы абзацев. Отберите наиболее значимые факты, поясняющие основную идею.
 - 4. Изложите реферативно содержание текста в письменной форме на английском языке, придерживаясь схемы: вводное предложение тезис аргументы выводы. Используйте фразы из списка, приведенного в разделе I данной части учебного пособия, и необходимые по смыслу слова-связки.

Text 5

I. Прочитайте текст и завершите утверждения, представленные после текста (с. 95, 1—3), в соответствии с его содержанием. Обоснуйте свой выбор.

IMAGES, SUITED FOR KIDS

- A. Nine days after 9-month-old Demartre Hughes *fell off* bed onto his head; physicians at the University of Maryland Medical Centre diagnosed a skull fracture and extensive internal bleeding. Emergency neurosurgery removed the blood half a softball's worth pressing on his brain, *according to* his surgeon, Arthur DiPatri, chief of pediatric neurosurgery *repaired the fracture* and saved his life. The baby *is expected to make* a full recovery.
- **B.** To diagnose the baby's injuries, the emergency room pediatrician ordered a CT (or computed tomography) scan a series of cross-sectional images (tomographs) produced by an X-ray machine that rotates around a patient's body, or, as in this case, his head. But while CT scans can save children's lives in cases like Demartre's, they also place children at an added risk of radiation-related illness later in life.
- C. As a result, the use of CT scans in children is coming under new scrutiny. The National Cancer Institute (NCI) has just alerted physicians around the country to make sure that CT scans they order for children are really needed and not to use the same radiation levels used for adults. That frequent mistake, say experts, exposes kids to up to four times as much radiation as is needed and may, later in life, kill a small fraction of them from cancer perhaps one in every 2,500.
- D. The warnings come at a time when use of pediatric CT scans is expanding rapidly. According to the NCI, two million to three million CT scans are given to U.S. children each year. CT scans now account for two-thirds of the nation's entire radiation dose from all medical X-ray procedures, according to research cited by the NCI.
- E. While calling for immediate action, the NCI is careful to balance CT's benefits against its risks. "CT is clearly a terrific test," said Thomas Slovis, a pediatric radiologist at the Children's Hospital of Michigan in Detroit. "We just want it to be used properly."
- F. One advantage of CT scan over other imaging techniques that makes it well suited to emergencies is speed. Demartre's ER physician, Adrienne Suggs, could have ordered a magnetic resonance imaging (MRI) scan, which produces a similar set of pictures without subjecting

- the patient to any radiation. But that likely would have taken about 45 minutes too long in an emergency, and *the baby would have had to be sedated to keep* him from moving and blurring the images.
- G. Another advantage of the CT is the detail provided by its consecutive-slice images. Dr. Suggs and her ER colleagues also rejected the idea of ordering only a simple X-ray of Demartre's skull. "A plain film will see a skull fracture but won't tell you if it's depressed," explained Suggs, nor will it show any possible internal bleeding.
- H. Radiation exposure is measured in rems an acronym for "roentgen equivalents in man" a unit that permits comparisons of various sources of radiation, such as gamma rays, X-rays and neutron particles. A simple X-ray of Demartre's skull would have exposed him to less than .013 rems. Demartre's CT scan likely gave him 2 to 3 rems. A lethal dose is 400 rems. In Demartre's case, where time was critical, the choice may have been clear. In less critical cases, like that of a child with chronic headaches, a diagnostic exam that emits no radiation might have sufficed. Such non-emergency cases, say experts, may account for half or more of all children CT scans.
- I. Where CT is used, the dose setting is also important. Adult CT settings give twice as much radiation as is required to scan a baby's had and four times as much as is necessary to image its abdomen, according to the NCI. Why might a technician use a higher, adult-level setting for a child? One possible reason is that higher settings produce better images. But the NCI is now urging doctors to use the lowest dose that will provide acceptable image quality. According to Slovis and other experts, cutting the adult dose in half for kids often results in little appreciable loss in quality. Hospital CT technicians are instructed to enter the child's age into the scanner's software. The younger the age, the smaller the dose used by the machine.
- J. For one thing, today's CT scans emit at least 100 times as much radiation as conventional X-rays, the procedure of choice before CT arrived. The NCI expects CT to multiply the cancer risk by this same amount. Also, new epidemiological data from survivors of the 1945 atomic bombings of Hiroshima and Nagasaki show evidence of radiation-caused cancer at exposure levels under 10 rems lower that previously confirmed.
- **K.** There's another factor to take into account in computing the risk of CT caused cancer for children: radiation has a much larger impact on kids than on adults. A newborn is 10 times as radiosensitive as a 50-year-old, according to research published this spring in the journal

Pediatric Radiology. Totally independent of this radio sensitivity, when a child and an adult are exposed to the same CT beam, the child actually gets a higher radiation dose because his thinner body allows the beam to penetrate with higher average intensity. Finally, a scanned child has a greater life expectancy than a scanned adult, giving any developing cancer longer to materialize.

- L. Aware of the debate, three of the four major scanner manufactures Toshiba, Siemens and General Electric have recently introduced a nearly foolproof scanner that automatically *dials down for kids*. The machines also give lower doses for thinner front-to-back body views than for thicker side-to-side views.
- 1. The article says that the least dangerous is...
- CT
- X-ray test
- MRI.
- 2. The article states that a better image is provided by...
- CT
- X-ray test
- 3. Radiosensitivy depends on...
- the type of the test
- the patient's general health
- the size of the body.
- П. Выполните задания, при необходимости обращаясь к тексту.
- 1. Разберите предложения по составу.
- Emergency neurosurgery removed the blood half a softball's worth pressing on his brain, according to his surgeon, Arthur DiPatri, chief of pediatric neurosurgery repaired the fracture and saved his life.
- The frequent mistake, say experts, exposes kids to up to four times as much radiation as is needed and may, later in life, kill a small fraction of them from cancer perhaps one in every 2,500.
- While calling for immediate action, the NCI is careful to balance CT's benefits against its risks.
- But that likely would have taken about 45 minutes too long in an emergency, and the baby would have had to be sedated to keep him from moving and blurring the images.
- Another advantage of the CT is the detail provided by its consecutiveslice images.

- 2. Укажите функцию инфинитива и переведите на русский язык фрагменты предложений.
- is expected to make a full recovery (абзац A)
- to diagnose the baby's injuries (абзац В)
- has just alerted physicians around the country to make sure (абзац С)
- is careful to balance (абзац Е)
- want it to be used (абзац Е)
- the baby would have had to be sedated to keep him for ... (абзац F)
- is required to scan (абзац I)
- is necessary to image (абзац I)
- is now urging doctors to use (абзац I)
- expects CT to multiply the cancer risk (абзац **J**)
- another factor to take into account (абзац K)
- allows the beam to penetrate (абзац **K**)
- 3. Укажите, какой частью речи в данном тексте являются приведенные ниже слова. Переведите их на русский язык.

warning, expanding (абзац \mathbf{D}), ordering, bleeding (абзац \mathbf{G}), setting, cutting (абзац \mathbf{I}), bombings (абзац \mathbf{J}), giving, developing (абзац \mathbf{K}).

- 4. Установите значения модальных глаголов в словосочетаниях:
- can save (абзац В)
- could have ordered (абзац F)
- may have been clear (абзац Н)
- might have sufficed (абзац H)
- may account for (абзац Н)
- why might a technical use (абзац I)
- 5. Укажите предлоги в следующих словосочетаниях:

place smb ... a risk, expose smb ... radiation, advantage ... a CT scan, subject smb ... MRI, result ... loss, independent ... radiosensitivity, well suited ... emergencies, be measured ... rems, cut ... half, enter smth ... software, be aware ... smth

- 6. Укажите значения фразовых глаголов:
- fall off (абзац A)
- account for (абзац D)
- call for (абзац **E**)
- 7. Укажите значения фраз, исходя из содержания текста:
- repaired the fracture (абзац A)

- later in life (абзац В)
- at a time (абзац **D**)
- a terrific test (абзац Е)
- for one thing (абзац **J**)
- dials down for kids (абзац L)
- 8. Укажите, какие смысловые отношения устанавливаются между фрагментами информации в тексте при помощи следующих слов и словосочетаний:

according to (абзацы A и D), also (абзацы B и J), while (абзац B), as a result (абзац C), another advantage, nor (абзац G), such as, like (абзац H), finally (абзац K).

- III. Выполните письменный перевод текста, используя словарь.
- IV. Проведите реферативную обработку текста.
 - 1. Определите по заголовку текста, в каком ракурсе автор намерен рассмотреть проблему радиодиагностики в медицине. Сформулируйте устно на английском языке основную идею текста.
 - 2. Сформулируйте устно на английском языке основную идею каждого абзаца и поясните последовательность рассуждений автора.
- 3. Укажите устно на английском языке роль каждого абзаца в раскрытии темы, заявленной в заголовке текста. Определите, какие абзацы играют ведущую роль. Уточните назначение первого и последнего абзацев.
- 4. Изложите реферативно содержание текста в письменной форме на английском языке, придерживаясь схемы: вводное предложение тезис аргументы выводы. Используйте фразы из списка, приведенного в разделе I данной части учебного пособия, и необходимые по смыслу слова-связки.

Part IV Assignment to Sections 1–5

- 1. а. Прочитайте заголовки текстов в каждом разделе и сформулируйте устно на английском языке тему, которая в них рассматривается.
 - б. Сообщите на английском языке известную вам информацию по теме раздела.
- 2. а. Прочитайте тексты и поясните устно на английском языке, в каком аспекте рассматривается тема раздела в каждом тексте и какой вывод предлагает автор.
 - б. Укажите в текстах факты, являющиеся наиболее важными для раскрытия темы раздела.
- 3. а. Выполните письменный перевод текстов.
 - б. Составьте список ключевых слов по теме раздела. Обоснуйте свой выбор.
- 4. а. Составьте письменно на английском языке обзорный реферат текстов одного раздела, придерживаясь схемы: вводное предложение — тезис — аргументы — вывод.
 - б. Подготовьте устные сообщения по темам разделов на основе обзорных рефератов.

Section I

Text 1 Sports Risk

Sometimes, however, the very activities people use to unwind place their backs at risk of injury. Racket sports (which involve twisting of the body and sudden starts and stops), football and other leisure activities are prime causes of injuries to the neck as well as the lower back, Jacobs said. Safer sports include walking, swimming (the crawl and backstroke), jogging (on grass or a wooden track), bicycling in an upright posture and crosscountry skiing, he added.

Text 2 High School Athletic Injuries Rates

High school football players face an injury risk surpassing that of all other student athletes. That's no surprise to worried parents concerned about their kid's participation in the hard-hitting sport. But a new report suggests most high school football injuries are minor scrapes and sprains.

Larry G. McLain of the Loyola University Medical Centre in Maywood, Ill., studied 1,283 students participating in high school athletics during the 1987-1988 academic year, finding football led the injury list with 61 per cent of all participants getting injured during the year.

But McLain found sprains, muscle strains and bruises accounted for most football injuries. In contrast, track participants were more likely to suffer a serious injury, such as a broken bone, that kept them sidelined linger. On average, injured football players couldn't return to their sport for about 6.7 days, while track participants stayed out of play an average of 32 days per injury for girls and 23.1 days for boys. McLain, who now directs the Parkside Sports Medicine Centre in Parkridge, Ill., describes his findings in the September *Pediatrics*.

Text 3 Swim to Cool off and Shape up without Injury

When it gets hot out, everybody thinks of ways to cool off. And one of the best things to do is to go swimming.

Swimming is a great way to have fun. It's a great way to get fit and stay that way. And that's especially important for kids.

When you are physically fit, you have more energy. You don't get tired as quickly. You handle stress better, and you feel more confident. Being fit is good for your body and for the way you feel about yourself.

Swimming is *aerobic* exercise. That means that it increases your heart rate and your breathing rate. If you've ever swum lots of laps, you know that swimming does that.

Aerobic exercise forces your body to use more oxygen, and that's good for you. It gives you greater endurance, which means your body lasts longer when you make demands on it. If you have endurance, you can run up a long flight of stairs without huffing and puffing. You can take a hike without feeling worn out. You can run a long race, or play jump rope for ages. Aerobic exercise can also keep you from getting too fat.

Swimming is also good for developing flexibility in your muscles. When you're flexible, you can move body easily. Flexible people can touch their toes without groaning. Swimming uses all your big muscles and makes them stronger.

But one of the best things about swimming is something it doesn't do. It doesn't put strain on your body, like impact sports such as running or football do. No wonder some people say swimming is the perfect exercise.

Section 2

Text 1 Can You Live with Stress?

Stress is one of the most common problems affecting people today, and can affect you at any age. Pressures and emotional problems are part of all our lives, but the mental and physical effects vary from person to person. Too much stress continuing over a period of time can cause a wide variety of physical and emotional disorders. You need to recognize which situations are stressful for you and to find effective ways of dealing with them in order to avoid the effects of too much stress.

The classic symptoms of stress are easy to recognize. These include headaches, ulcers, temper outbursts, impatience, stomach pains and upsets, sleep disorders and digestive problems. Your body might also tell you in more subtle ways that it is under strain.

Stress control is an important factor for good health so recognizing stress symptoms and taking steps to deal with them is an important part of everyday life.

Text 2 Stressed out by Sept. 11? Most Americans Are

The September 11 attacks on the United States left nine out of 10 Americans showing signs of stress, Rand researchers reported in *New England Journal of Medicine*. Sleeplessness, nightmares, stomach aches, irritability and an inability to concentrate plagued American adults in the days immediately following the Sept. 11 attacks that killed about 4,600 people, researchers said. "People reacted as they were personally attracted," Dr. Mark Schuster, the Rand researcher who headed the study, told Reuters.

"The stress was felt across all groups, all ages and all regions," said Schuster, a pediatrician on the University of California, Los Angeles faculty. "Naturally, the stress was more intense the closer one was to the scenes of the World Trade Centre and Pentagon, but even people who lived in places where aren't tall buildings were experiencing substantial stress levels."

Researches for the study, funded by the California-based, non-profit group RAND and the Centres for Disease Control and Prevention, telephoned 560 adults over the weekend following the attacks that leveled the World Trade Centre and damaged the Pentagon. Some 44 per cent of the adults reported one or more substantial symptoms of stress, such as sleeplessness and nightmares, and 90 per cent said that they experienced at least low levels of stress symptoms.

Americans responded to the attacks in various ways. Most people turned to religion and one another for social support. Some made donations; others checked on the safety of their loved ones and took part in vigils held around the nation, researchers said.

The events also haunted children. About 47 per cent of parents reported their child had been worried about their own safety or the safety of someone they loved.

Text 3 Take It Easy

Modern life is bad for you. It's very difficult to relax, to take it easy. There are lots of little things to make us feel tense and unhappy. Tension leads to stress and stress leads to ... what?

Recently American scientists made a very strange experiment with rats. They built a model of a modern city for them. During the experiment the rats lived in blocks of flats. They had the noise of traffic, music, other rats day and night. The scientists gave them alcohol, tobacco; they took the rats out of their "flats" every day and put them in an "office". Of course, the rats didn't have to work or go to school but they lived just like we do.

And very soon they began to develop bad habits. Some rats started to destroy their "homes" just like the "Hooligans" who break windows for no reason. Some rats started to drink too much and behave like the alcoholics do.

When our correspondent came to the laboratory some rats were fighting each other, other were drinking and crying. One of the researchers who had been working with rats for many years said he had never seen any rats behave like that. Commenting on the experiment he added:

"Have you ever heard of a rat who is an alcoholic? Have you read about a rat who has cancer or heart disease? Normal rats never develop any of these diseases. Our experimental rats are having now all the problems people often have and they are now developing all the diseases we usually have. They have been living in this "model city" only for eight weeks. They have already become depressed, even aggressive but they haven't yet found any way out of the situation ... just like people."

Of course, you can say that it isn't natural for rats to live in blocks of flats. But then, is it natural for us to live the way we do in the modern world? It certainly isn't good for us. It makes us tense and irritable. Doctors think that stress is very bad for our health, it makes us ill. Many serious diseases are related to stress. Doctors have found that the two "modern killers" — heart diseases and cancer — are more typical of people who find it difficult to relax.

It's not only stress, of course; they are other things about modern life that are bad for us: smoking, pollution, too much alcohol...

So, what's the answer? We can't go and live on a desert island. There are a lot of things we can do. We can take more exercise. We can eat less. Drink less. Give up smoking and other bad habits.

But, perhaps, the most important thing we can do is to learn to relax. Stress grows very slowly. It-is-made-up-of-all-the-little-things-that-makes-us-tense. Day after day. Year after year. Every time we relax, every time we sit down and put our feet up, every time we have a cup of tea and a chat with an old friend we take away from stress.

So... relax and take it easy!!!

Section 3

Text 1 The Chemicals Cigarettes Contain

It's no secret that cigarettes contain hundreds of chemical additives. Under a 1984 law manufacturers have to submit lists of ingredients to the federal government, but federal officials are strictly barred from making the list public. Last week National Public Radio obtained the manes of several common additives, and they don't sound appetizing. According to NPR, the current list of 700 additives includes at least 13 chemicals that are barred from food and five that have been designated as hazardous substances.

In addition to irritants like ammonia, the roster includes Ethyl 2-furoate (which causes liver damage in animals and was once studied as a chemical warfare agent), Sclareol (which can trigger convulsions when combined with other chemicals) and Methoprene (a pesticide used on stored tobacco). A tobacco-industry toxicologist insists the additives are all safe at the levels present in cigarettes, but some in Congress are skeptical. At the very least, say health advocates, smokers should know what they're consuming.

Text 2 Smoking "Will Kill 1 in 3"

Women in Britain are now smoking twice aş many cigarettes as they did 25 years ago and the death rate from lung cancer in this country is now the highest in the world.

There are two of the depressing facts put forward by ASN - Action on Smoking and Health – in their latest report aimed at persuading more people to stop smoking.

Cigarette smoking now kills more than 25,000 people under 65 in Britain every year — four times as many as the number killed in road accidents.

One in three cigarette smokers will die as a result of smoking and even non-smokers are at risk. A non-smoker in a restaurant, railway carriage or cinema where others are smoking heavily may inhale in one hour more nicotine than in one cigarette.

The report also said that the death rate from chronic bronchitis in those smoking 25 or more cigarettes a day is 20 times that of non-smokers.

The cost of the health service of treating patients with cigarette-associated diseases is about £2 million a week.

The report, however, is not all gloom. There are now 6.6 million exsmokers in Britain and surveys show that 80 per cent of Britain's 18 million smokers want to stop.

Giving up smoking after one coronary halves the risk of another and two out of three ex-smokers claim they found it easier than they had expected.

Text 3 Inhaling Cigars Is Bad — No Kidding

Boston. Smokers who attempt to avoid the hazards of cigarettes by switching to cigars continue to have a sharply elevated risk of heart attacks, a new study concludes. Indeed, men who switched had about five times the risk of heart attacks as did those who gave up smoking completely, the study said.

"The punch line appears to be that those who switch from cigarettes to cigars continue to inhale," said Dr. Kaufman. "That's probably why we see difference." the study, directed by Dr. Kaufman at Boston University's Stone Epidemiology Unit, was published in the latest issue of the *British Medical Journal*.

The researchers found the elevated risk in men who had been off cigarettes for two or more years but who smoked at least five cigars a day. Heart attack risk appeared to be only slightly increased for heavy cigar smokers who had never used cigarettes. There was no clear evidence that pipe smokers had an increased hazard.

Text 4 Drug May Help Smokers Break Habit

Craving for cigarettes appear to be alleviated by a drug that has been known to diminish withdrawal symptoms in heroin addicts, suggesting that the cravings for heroin and cigarettes are similar, according to a recent study. The drug, called *Clonidine*, is normally used to treat high blood pressure and might eventually be useful as a treatment to help people quit smoking, according to a study by Dr. Alexander Glassman of Columbia University.

The study found that *Clonidine* alleviated cigarette cravings by reducing activity in certain small areas in the brain that make up the noradrenergic system, which governs the automatic functions of the nervous system, such as signaling the heart to beat and regulating blood pressure.

Section 4

Text 1 Sweet Music to the Deaf. An Estimated 21 Million Americans Have Trouble Hearing

About 10 per cent of the hearing impaired have "conductive" hearing loss. This results from a ruptured eardrum or damage to the body structures in the middle ear. In each case, sound is not adequately transmitted from the outside world to the cochlea of the inner ear. The other 90 per cent — often elderly — suffer from "sensorineural" deafness resulting from damage to the cochlea or to the auditory nerve, which carries sound signals to the brain. The usual causes: loud noise or simple aging.

People with conductive hearing loss often can be helped by surgery repairing middle-ear bone structures. And many people with conductive impairment, as well as some with sensorineural deafness, may benefit from conventional hearing aids that simply deliver amplified sound to the ear. Miniaturization has allowed some devices — including amplifier, microphone and speaker — to fit almost invisibly inside the ear canal. But not everyone can wear even mini-hearing aids.

Some people with conductive loss suffer from chronic ear infections; others have had repeated surgeries or were born without ear canals. Until now, their only recourse was a bulky aid held against the mastoid bone with a headband or in the earpiece of a special pair of glasses. These aids pick up sound waves and, bypassing the middle ear, transmit them to the cochlea. A new, implantable aid promises to replace them: the XOMED Audiant Bone Conductor, recently approved by the U.S. Food and Drug Administration. During an hour-long outpatient procedure, an ear surgeon screws a small, powerful magnet into the temporal bone. After the incision has healed, the patient is given a small sound processor that is held in place over the implanted device by another magnet. The processor picks up sound and conducts the vibrations through the skin to the inner ear.

Q.: What's the best protection against noise?

A.: If you can't avoid being exposed to excessive noise, use earmuffs like ground crews wear at airports. For extra protection, wear earplugs in addition to earmuffs.

Q.: Can some drugs cause hearing loss?

A.: A number of antibiotics — such as streptomycin — will damage parts of the ear, but these drugs are not usually prescribed except in hospital for life-threatening situations.

A very common drug that can lead to hearing loss is aspirin — if taken in large quantities. This is a problem for people with arthritis who take large doses of aspirin to relieve the pain. A person who takes eight tablets or 49 grains of aspirin a day is getting into the danger area of possible ear damage.

Q.: What is the best treatment for earaches?

A.: Earaches are usually a sign of middle-ear infection — a common problem in children. Most infections can be successfully treated with antibiotics. It's important to go to the doctor and start treatment immediately to prevent any permanent damage to the ear. In complicated cases, an earnose-throat specialist may be needed.

Text 2

Hearing Loss: Ways to Avoid, New Ways to Treat

Hi-fi music played at full blast, power lawn mowers, even the dishwasher and vacuum cleaner may damage the ear. A leading authority offers advice on steps people can take to protect their hearing.

Q.: Dr. Nauton, is hearing loss on the rise in the US?

A.: Yes, it's increasing rather dramatically — primarily because people are living longer. We estimate that among people over 50 years old, 40 to 50 per cent have some impairment that is detectable on standard hearing tests.

O.: Is increased noise in the environment a factor in the rise?

A.: Extreme high-intensity noise for even a short period of time can be damaging to the ear. Lesser amounts of noise over a long period of time are also hazardous.

Q.: Is it dangerous to listen to hi-fi music at full blast?

A.: From experiments with monkeys, we know that exposure to disco noise over a protracted period of time results in damage to the auditory nerve

of those monkeys. It's most likely that with teenagers who are habitual discogoers and who don't protect their ears, there will be some subtle damage.

Text 3 Deaf "Feel" Noise with Wrist Device

London. British scientists say they have developed a device like "a faceless digital watch" that enables the profoundly deaf to "feel and see" noise around them.

"It can be worth like a wristwatch by children and adults, and gives a deaf person awareness of sound through vibration and a flashing screen," said Mike Martin, head of scientific and technical services for the Royal National Institute for the Deaf.

Mr. Martin said the device allows the deaf to identify sounds "such as people talking and the telephone ringing". It is of particular importance to people who are both deaf and blind, enabling them to "feel" someone speaking, he said, though they cannot tell what words are being spoken.

Section 5

Text 1 Cash Boost for Transplants

A third national centre for liver transplants is to be set up at St. James' Hospital in Leeds and heart transplants for children are to start at the Hospital for Sick Children, Great Ormond Street, London.

The developments some after on announcement that spending on these and other specialized services is to increase from 31.5 million pounds a year to 40 million pounds.

Spending on heart transplants is to rise by more than 1.5 million pounds which will go to the three existing heart transplant centres at Papworth, Harefield and Newcastle and bids for a fourth centre, due to start in 1989, are now being considered by the Government.

The additional money reflects an increase in the number of heart transplants performed in the past two years.

In 1984 only 116 were carried out, increasing to 137 in 1985. But an estimated 200 transplants were performed last year.

The Government has also announced that a second supra-regional unit for specialized liver services is to be set up at the Birmingham Children's Hospital in addition to the unit at King's College Hospital, London.

St. James' Hospital in Leeds has already carried out three liver transplants in the past year, but within the next five years it hopes to develop a programme to perform 20 transplants a year.

Text 2 Better Transplants

Organ transplants will become more successful in the future because of an experimental agent that prevents rejection, say doctors from 12 medical centres.

Reporting in the *New England Journal of Medicine*, the researchers found that a specially engineered monoclonal antibody, called *Orthoclone OKT3*, halted rejection episodes in 58 of 62 patients who received new kidneys. By comparison, drug treatment halted rejection episodes in only 45 of 60 patients.

The agent, manufactured by Ortho Pharmaceutical Corporation, is injected once daily for 10 to 14 days. "It coats circulation white cells, removes them from circulation and prevents the killing mechanism," says Ortho's Dr. Gideon Goldstein.

Some 20 per cent of kidney recipients reject their new organs. OKT3 is now being tested in liver- and heart-transplant patients, whose rejection rates are higher.

Text 3 Double Transplants

Heart-lung transplants. Transplanting both the heart and lung in a combined operation not only saves lives but can restore patients to a normal, active life.

So far, six people have received such double transplants at the Stanford University Medical Centre. One patient died of complications, but all other recipients are going well. Each of the two longest survivors — at eight and ten months has a normally functioning heart and lungs and no physical limitations. One man who had been bedridden now works full time.

"We are cautiously optimistic," says Stanford's Dr. Bruce A. Reitz. "There is no doubt that the heart-lung transplantation can mean rehabilitation and long-term survival."

Candidates for double-transplant operations must have severe disease in both organs, be between the ages of 16 and 50 and have a life expectancy of less than six months.

Key to the current success with transplants is the use of a new drug, cyclosporine A, that prevents the body from rejecting the transplanted organs.

Щедрина Татьяна Петровна **Агафонова** Светлана Анатольевна **Бессонова** Вера Анатольевна

ТЕКСТЫ ПО МЕДИЦИНЕ: чтение, перевод, реферирование и обсуждение

Учебное пособие по английскому языку под редакцией канд. филол. наук, проф. Т. П. Щедриной

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ООО «ТИД «Студент» 109004, г. Москва, ул. Земляной Вал, д. 64, стр. 2, офис 717 (31)

Тел. (495) 915-08-96;

915-80-41

E-mail: sales student@mail.ru

Отдел реализации:

тел.: (495) 915-08-96

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E-mail: zakaz@veltip.ru