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КАФЕДРА ИНОСТРАННЫХ ЯЗЫКОВ

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# **ЗДОРОВОЕ ПИТАНИЕ**

Учебно-методическое пособие



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В издание включены тексты по вопросам здорового питания с комплексом упражнений для  
развития навыков устной речи по указанной теме.

Предназначено для студентов медицинских специальностей, магистрантов и соискателей.

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## ПРЕДИСЛОВИЕ

Учебно-методическое пособие «Здоровое питание» предназначено для студентов медицинских университетов, магистрантов, соискателей, факультативных групп, а также всех желающих изучать английский язык самостоятельно.

Данное издание рассчитано на 12 часов аудиторной работы и включает в себя тексты с комплексом разработанных упражнений, направленных на развитие устной речи, по следующим темам: «Углеводы», «Протеины», «Жиры» и «Витамины».

Для успешного освоения материала студентами авторы предлагают большое количество коммуникативных заданий, направленных на закрепление активной лексики по теме «Здоровое питание» и повторение грамматики (видо-временных форм группы Indefinite Active и Passive, повелительного наклонения и типов вопросов в английском языке).

Особое внимание уделяется развитию у студентов критического мышления и навыков монологической и диалогической речи. В разделе «Проектная работа» студентам предлагается ряд проблемных тем для самостоятельных исследований на английском языке с предполагаемым последующим обсуждением научных докладов на занятии.

Авторы надеются, что проблемные вопросы, предложенные для обсуждения в пособии «Здоровое питание», вызовут интерес у студентов, а комплекс представленных заданий будет стимулировать речемыслительную деятельность и способствовать активному усвоению новых знаний и умений.

# HEALTHY NUTRITION



## LESSON 1

### *Ex. 1. Answer the questions:*

1. Do you follow a healthy lifestyle? What do you do to be healthy?
2. Do you follow a diet regimen? What time do you usually have breakfast (lunch, dinner)?
3. Which is the main meal of the day? What do you have for it?
4. Do you regularly have lunch and dinner? Where do you have them?
5. Do you like to eat out? Why? What kind of places do you usually go to? / Why not?
6. Do you often have snacks during the day? What do you usually have for snacks? Do you think having snacks between meals is healthy? What would you choose for a snack — a bun, a chocolate cake, a müsli bar, an apple an apple or a hot dog? Why?

### *Ex. 2. Read the text “Do You Eat the Right Food?” Before reading:*

#### *a) learn the pronunciation of the international words :*

vitamin	[ˈvɪtəˌmɪn]	lipid (= fat) (n)	[ˈlɪpɪd]
energy (n)	[ˈenədʒɪ]	protein (n)	[ˈprəʊtɪːn]
calory (n)	[ˈkæləri]	chemical (n, adj)	[ˈkemɪkl]
metabolism (n)	[məˈtæbəlɪzəm]	yogurt	[ˈjəʊɡət], [ˈjɒɡət]

#### *b) learn the pronunciation and remember the meaning of the following words:*

nutrient (n)	[ˈnjuːtriənt]	питательное вещество
nutrition (n)	[njuːˈtrɪʃ(ə)n]	питание
nutritional (adj)	[njuːˈtrɪʃ(ə)n(ə)l]	питательный

carbohydrate (n)	[kɑ:bə`haɪdreɪt]	углевод
starch (n)	[stɑ:tʃ]	крахмал
ascorbic acid	[ə'skɔ:bɪk] [˘æsid]	аскорбиновая кислота
poultry (n)	[˘pəʊltri]	мясо птицы
tissue (n)	[˘tɪʃu:]	ткань (организма)
rigidity (n)	[rɪ`dʒɪdətɪ]	жесткость, твердость
adequate (adj)	[˘ædɪkwət]	соответствующий, подходящий
determine (v)	[dɪ`tɜ:mɪn]	определить

## DO YOU EAT THE RIGHT FOOD?

What you eat has a life long effect on your health and well-being. To look and feel your best, you have to eat adequate amounts of the proper foods. The food you eat is required to meet certain nutritional standards.

Nutrients build your body and allow it to function. Each nutrient has at least one specific job, and no other nutrient can cover for any of the others. Because you need many different nutrients to stay healthy, you have to eat a wide variety of foods in order to get all of them. If you stick to just one or two favourite foods, you'll run short of the nutrients you must have to stay well.

A lot of the foods that we like to eat don't have much nutritional value. These foods are referred to as "junk food" (empty calories), because while they provide calories that can be turned into energy, they don't provide much else in the way of things our bodies can use.

Nutrients are classified into 5 major groups — proteins, carbohydrates, fats, vitamins, and minerals.

**Proteins** are important for new tissue growth and tissue repair.

**Carbohydrates** provide a great part of the energy in most human diets.

**Fats** produce more than twice as much energy. Being a compact fuel, fat is efficiently stored in the body for later use when carbohydrates are in short supply.

**Vitamins** are organic compounds that mainly function in enzymes system to enhance the metabolism of proteins, carbohydrates, and fats.

**Minerals** are required in the structural composition of hard soft body tissues. Calcium is needed for developing the bones and maintaining the rigidity. Phosphorus plays an important role in energy metabolism of the cells, affects carbohydrates, lipids and proteins.

In simple terms, nutrients are the chemicals that your body gets from food. Nutrients allow your body to break down the food you eat into energy. When you go for a run, swim, or even talk on the phone you are using energy that your body has produced. When you are writing a test, you're using brain power, which is really energy that is coming from the food you had last night for dinner and this morning for breakfast. One nutrition key is to never skip

breakfast, especially the morning of tests. Your body has not received energy for more than 12–15 hours and will not be able to function at its peak without that boost you get from food.

Breakfast, lunch and dinner with a nutritious snack is a good prescription for good health. An incredible statistic is that 30 to 50 % of all calories eaten each day are consumed in the form of between-meal snacks. Unfortunately, the usual between-meal foods are low in nutritive value and too high in calories, saturated fats, salt and refined sugar, e. g., buns, rolls, hamburgers, salted peanuts, crackers or biscuits. Some excellent snacks that should always be available are plain yoghurts, carrots, pieces of apples, cheese and natural fruit juice. Eating yoghurt as a snack food is far healthier and more nutritionally sound than eating so-called “junk” food, which is less nutritious and too high in sugar, calories and additives.

A proper diet forms the basis of man’s vitality, vivacity, and longevity. Healthy eating does not mean giving up all your favorite foods, it’s all about choosing foods wisely, preparing meals in a healthier way. A well-balanced diet is the key to good health. Aim to eat food from each of the following food groups every day:

- **starchy foods** — bread, rice, pasta, potatoes, cereals, etc.;
- **dairy products** — cheese, milk, yogurt, etc.;
- **meat, poultry, fish and alternatives** including beans, nut products and eggs;
- **fruit and vegetables** — broccoli, carrots, apples, strawberries, etc.

Eating a variety of foods from each of these groups should ensure that your body gets all the necessary vitamins and minerals you need and will help you maintain a healthy well balanced diet.

***Ex. 2. Match the beginnings and endings of the expressions (based on the text “Nutrition Know How”). Find only one best alternative :***

- |                               |                                     |
|-------------------------------|-------------------------------------|
| 1. to eat                     | a) a healthy well-balanced diet     |
| 2. excess                     | b) food groups                      |
| 3. junk                       | c) nutrients                        |
| 4. hard and soft              | d) structure                        |
| 5. to meet                    | e) into energy                      |
| 6. to have a long-term effect | f) food                             |
| 7. to run short of            | g) certain nutritional standards    |
| 8. not to have much           | h) body tissues                     |
| 9. major                      | i) adequate amounts of proper foods |
| 10. to maintain               | j) nutritional value                |
| 11. the chemical              | k) weight                           |
| 12. to break down the food    | l) on somebody’s well-being         |

**Ex. 3. Say if the statements are true or false. Use the following clichés of politeness:**

<b>If you agree</b>	<b>If you are not sure</b>	<b>If you disagree</b>
I quite agree with you. You are quite right. This is quite so. I'm of the same opinion.	I can't agree with you there. I think that ... I would say that ... On the other hand ...	I'm afraid, I don't agree. In my opinion ... To my mind ... On the contrary...

- 1) A healthy nutrition means giving up unhealthy food.
- 2) To supply your body with vitamins you should choose a few foods rich in them.
- 3) You should consume different nutrients because each of them has its own function.
- 4) All foods have much nutritional value.
- 5) Junk food is not rich in calories.
- 6) Breakfast is the most important meal of the day.
- 7) The breakdown of nutrients produces energy.
- 8) People often gain weight when they are bored, lonely or upset.
- 9) Having snacks between meals is unhealthy.
- 10) Forbidding yourself to eat certain products you can easily make your diet healthy.
- 11) You should eat a light breakfast, a substantial dinner and a hearty supper.
- 12) We should eat products from four food groups daily.

**Ex. 4. Complete the sentences:**

- 1) The wealth of wealth is ... .
- 2) A healthy lifestyle includes ... (+ *Gerund* or a noun).
- 3) To be healthy you need ... .
- 4) A good diet is a ... .
- 5) So you have to ... .
- 6) Nutrients are ... .
- 7) The major groups of nutrients are ... .
- 8) The examples of minerals may be ... .
- 9) Bread, rice, pasta, potatoes, cereals are rich in ... .
- 10) Meat, poultry and fish are high in ... .
- 11) Broccoli, carrots, cabbage, tomatoes, cucumbers are ... .
- 12) Friuts and vegetables are full of ... .
- 13) Junk food ... .
- 14) The food at our University canteen meets ... .
- 15) To get all the nutrients ... .

16) You'll run out of nutrients if ... (+ *Present Simple*).

17) The key to healthy nutrition is ... because ... .

*Ex. 5. Speak about the functions of the major groups of nutrients.*

*Ex. 6. Comment on the proverbs: "We are what we eat", "Eat your breakfast like a king, eat your dinner like a knight, eat your supper like a pauper".*

## Diving deeper...

### LESSON 2 CARBOHYDRATES

*Ex. 1. a) Study the vocabulary:*

cereal crops	[ˈsiəriəl ˈkrɒps]	зерновые культуры
protein	[ˈprəʊti:n]	белок
dietary	[ˈdaɪətəri]	диетический
fiber (= fibre)	[ˈfaɪbə]	клетчатка
flour	[ˈflaʊə]	мука
bran	[bræn]	отруби
diabetes	[daɪəˈbi:tɪz]	диабет
chronic	[ˈkrɒnɪk]	хронический
arrhythmia	[eɪˈrɪðmiə]	аритмия
process (n)	[ˈprəʊsəs]	процесс
process (v)	[ˈprəʊsəs]	обрабатывать
supply <i>smb</i> with <i>smth</i>	[səˈplaɪ]	обеспечивать
benefit	[ˈbenɪfɪt]	польза
beneficial	[ˈbenɪˈfɪʃ(ə)l]	= useful, healthy
fatal	[ˈfeɪt(ə)l]	= deadly, causing death

*b) Give the Russian equivalents for the following words in bold type :*



**cereal (cornflakes)**



**cereal (= porridge = oatmeal)**



**bran**





**whole-wheat bread**  
(with unrefined grains)

**wheat bread**  
(made from refined grains)

**pastry**

**Ex. 2. Read the text and form derivatives from the words in the same line to complete the sentences.**

### Starchy Foods

**The bread, cereal, rice & pasta group** includes grain 1) \_\_\_\_\_ and other foods made from cereal crops (cereals, breads, pastas, crackers, and rice). The best source of carbohydrates are whole grains such as oatmeal, whole wheat bread and brown rice.

1) *to produce*

Grains supply us with food energy from 2) \_\_\_\_\_. They are also a source of protein. Whole grains contain 3) \_\_\_\_\_ fiber, essential fatty acids, and other 4) \_\_\_\_\_. 5) \_\_\_\_\_. Unrefined (whole) grains can be found in oatmeal, brown rice, buckwheat groats, corn chips and whole-wheat bread. 6) \_\_\_\_\_ grains contain a lot of vitamins and minerals. Unrefined grains are also very rich in fiber, which helps the 7) \_\_\_\_\_ system work well, and helps us feel full so that we do not overeat.

2) *starchy*

3) *diet*

4) *importance*

5) *nutrition*

6) *not to refine*

7) *to digest*

Refined grains like white flour and white rice which have been processed are not 8) \_\_\_\_\_ because many of the nutrients and fibers have been removed during the refining process. White rice, white bread, white pasta and potatoes can cause a fast increase in blood sugar, which can lead to 9) \_\_\_\_\_ gain, diabetes, heart disease, and other chronic 10) \_\_\_\_\_.

8) *benefit*

9) *to weigh*

10) *order*

**Ex. 3. Answer the questions:**

1. Are all types of bread equally healthy?
2. Which is a healthier type of bread — whole-wheat bread or refined wheat bread? Why do you think so?
3. What are the best sources of carbohydrates?
4. What is the main function of carbohydrates?
5. Why do dieticians recommend to have some cereal for breakfast?
6. What other important nutrients are contained in whole grains?

### SPEECH PRACTICE

**Ex. 4. Explain why whole foods are healthier than highly processed food products.**

### PROTEINS

**Ex. 5. Practice the pronunciation of the following terms:**

dairy	[ˈdeəri]	alternative	[ɔ:lˈtə:nətɪv]
phosphorus	[ˈfɒsf(ə)rəs]	to maintain	[meɪnˈteɪn]
amino acid	[əmi:nəʊˈæsɪd]	to consider	[kənˈsɪdə]
sour	[saʊə]	to consume	[kənˈsju:m]

**Ex. 6. Read the text about dairy products and open the brackets using the verbs in the necessary tense forms:**

### Dairy Products

**Dairy foods** (*to provide*) calcium and vitamin D needed for (*to build*) and (*to maintain*) bone mass. Dairy products (*to include*) milk, cheese, cottage cheese, cream, sour cream and yogurt. Dairy products (*to be*) the best source of calcium. They (*to supply*) you with protein, phosphorus, vitamin A, and in the case of fortified milk, vitamin D.

However, many dairy products (*to be*) very high in fat as well, and that is why skimmed products (*to be available*) as a healthier alternative.

Proteins from animal sources like meat and milk (*to be considered*) to be complete proteins because they (*to contain*) all the nine essential amino acids that our body (*can + to make, negative*) for itself. However, for people who (*not to take*) meat or milk products, it is also possible to have all the essential amino acids if they (*to consume*) a wide variety of vegetables that (*to be*) rich in protein.

**Ex. 7. Answer the questions:**

1. What dairy products do you know?
2. Do they have much nutritional value?



3. Why is milk called “a divine dish prepared by nature itself?”
4. Do you usually buy skimmed, low fat or fat milk? Why?
5. What kind of milk is recommended to those who want to lose weight?

## The Meat and Fish Group

*Ex. 8. Go over the vocabulary and show in the pictures:*

**lean meat**

**fatty meat**

**veal** (ТЕЛЯТИНА)

**beef** (ГОВЯДИНА)

**pork** (СВИНИНА)

**liver**

**poultry** (chicken, goose, turkey, etc)

**salmon** [ˈsæməŋ] лосось

**trout** [traʊt] форель

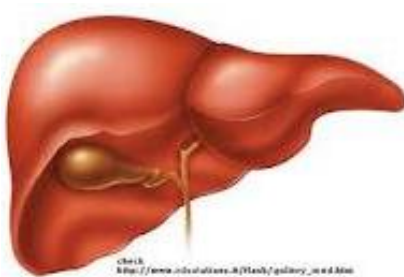
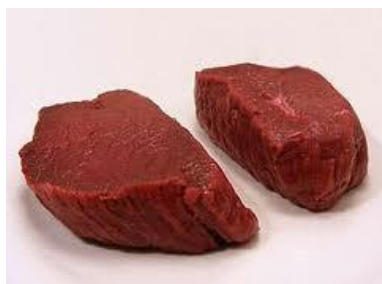
**tuna** [ˈtu:nə] тунец

**herring** [ˈherɪŋ]

**mackerel** [ˈmækrəl] скумбрия

**sardines**

**shrimp**





**Ex. 9. Read the text about meat products and their alternatives and insert the missing words from the list:**

### Meat and Its Alternatives

*substance*  
*saturated*  
*unsaturated*  
*protein*  
*cholesterol*  
*tissue*

*organs*  
*muscle*  
*functions*  
*structural materials*  
*nutrients*  
*major*

*amount*  
*meat alternatives*  
*dry beans*  
*pork*  
*sea products*  
*heart disease*

**Meat, fish, poultry, and eggs** are important sources of 1) \_\_\_\_\_.

Protein is made up of amino acids. These are the body's 2) \_\_\_\_\_ for the muscles, skin, hair etc. Our 3) \_\_\_\_\_ and immune system are made up mostly of protein. The human body uses the protein from food to make lots of specialized protein molecules that have specific 4) \_\_\_\_\_. (For example, our body uses protein to make hemoglobin — the red 5) \_\_\_\_\_ in the blood. Some other proteins are used to build the cardiac 6) \_\_\_\_\_.)

**Meat** is known as a 7) \_\_\_\_\_ source of dietary protein, it also provides a great 8) \_\_\_\_\_ of your daily iron, zinc, and vitamin B needs. The different kinds of meats include beef, chicken, 9) \_\_\_\_\_, salmon, tuna, and shrimp, etc. Some studies have shown that eating **fish and** 10) \_\_\_\_\_ reduces the risk of 11) \_\_\_\_\_.

Many of the same 12) \_\_\_\_\_ that are found in meat can be found in foods such as eggs, 13) \_\_\_\_\_, and nuts. This is the reason why such foods are in the same category as meats and are also called 14) \_\_\_\_\_. There are products that resemble meat or fish but are made from soy, eggs and cheese.

**Nuts and beans** are an excellent source of protein, fiber, vitamins, and minerals. Nuts contain 15) \_\_\_\_\_ fat and are good for your heart.

Although meats are a rich source of energy and nutrients, red meat contains a lot of 16) \_\_\_\_\_ fat so it is high in 17) \_\_\_\_\_. However, you can reduce its negative effects if you cut off fatty 18) \_\_\_\_\_ when cooking meat dishes and try to eat fish or chicken instead of meat several times a week.

**Ex. 10. Answer the questions:**

1. Why do meat, poultry, fish, dry beans, eggs and nuts form one food group?
2. Give examples of products rich in proteins.
3. Is meat a good source of only proteins?
4. Why don't some people eat meat?
5. From what other products can vegetarians get proteins and vitamins instead of meat?

### SPEECH PRACTICE

**Ex. 11. Explain why 33–48 % of our daily diet should consist of whole-wheat bread, cereals, potatoes and pasta, 15 % of milk & dairy products and 12 % of meat, fish & their alternatives.**

### LESSON 3 FATS

**Ex. 1. a) Study the vocabulary to the text:**

to contain	[tə kən`teɪn]	содержать
to in`crease (v)	[tə ɪn`kri:s]	увеличивать(ся)
an `increase (n)	[ən `ɪnkri:s]	увеличение
Ant. to de`crease (v)	[tə di`kri:s]	уменьшать(ся)
a `decrease (n)	[ə `di:kri:s]	уменьшение
the heart	[ðə `hɑ:t]	сердце
cholesterol	[kə`lestərəl]	холестерин
a source	[ə `sɔ:s]	источник
an ingredient	[ən ɪn`gri:diənt]	ингредиент
an alternative	[ən ə:l`tɜ:nətɪv]	альтернатива, заменитель
whole milk		= full fat milk
essential	[ɪ`senʃ(ə)l]	существенный, неотъемлемый; жизненно важный
omega	[`ɔʊmɪgə]	the Greek letter
a heart attack	[ə 'hɑ:t ə`tæk]	сердечный приступ
a stroke	[ə `strəʊk]	инсульт
cancer	[`kænsə]	рак
the digestive system	[ðə dɪ(a)'dʒestɪv `sɪstəm]	пищеварительная система
the stomach	[ðə `stʌmək]	желудок
the in`testine =	[ðɪ ɪn`testɪn =	кишечник
the bowel	ðə `baʊəl]	

**b) Remember the pronunciation of the words:**

margarine	[mɑ:dʒə`ri:n]	pastry	[`peɪstri]
-----------	---------------	--------	------------

sardine [sa:ˈdi:n]  
caviar [ˈkæviɑ:]

essential [ɪˈsenʃl]  
saturated [ˈsætʃəreɪtɪd]

**Ex. 2. Read the text. Give the Russian equivalents for the words in italics :**

### Fats

Fat can be divided into two main groups — *saturated* and *unsaturated fats*.

Saturated fat *is generally solid at room temperature* and usually *comes from animal sources*. It's found in *lard*, butter, hard margarine, cheese, *whole milk* and anything that contains these ingredients (cakes, chocolate, biscuits, pies and *pastries*). It's also the white fat you can see on red meat and under poultry skin.

Generally, eating too much saturated fat is associated with *increased blood cholesterol concentrations* and an increased risk of heart disease.

Unsaturated fat *is usually liquid at room temperature* and generally *comes from vegetable sources*. Unsaturated vegetable oils are generally a healthier alternative to saturated fat and can be found in *sunflower*, soy, olive and *rapeseed oil*, and in foods such as *caviar*, *oily fish*, including *mackerel*, sardines and *salmon*. These unsaturated fats contain *essential fatty acids* (omega-3 and omega-6) which are good for the heart.

Plant oils are healthy fats that can improve cholesterol levels and prevent heart arrhythmia, which may be a potentially fatal problem. Good sources of healthy unsaturated fats include olive, soy, *corn*, *sunflower*, *peanut* and *other vegetable oils* as well as fatty fish such as salmon.

**Ex. 3. Say which of the products you see in the pictures contain saturated or unsaturated fat.**



a)



b)



c)



d)



e)

**Ex. 4. Say if the following statements are true or false.**

1. Consuming fat is always harmful.
2. Some fats can prevent cardiovascular diseases.
3. Fatty fish and soy are rich in saturated fat.
4. Saturated fats are of plant origin and unsaturated fats are usually of animal origin.
5. Saturated fats contribute to breathlessness, arrhythmia and heart attack.
6. Essential fatty acids are healthy.

**Ex. 5. Answer the questions:**

1. What products are the sources of unsaturated and saturated fats?
2. How do unsaturated and saturated fats influence human health?

**Ex. 6. Read the text “Cholesterol” with a dictionary. Pay attention to the stress and pronunciation in the following words :**

cho`lesterol, `molecule, com`ponent, `membrane, `system, `hormones, `oestrogen, `transport — to trans`port, `gangrene.

### **Cholesterol**

Saturated fats are high in cholesterol. Cholesterol is a member of the group of substances known as steroids and it is a versatile molecule with a number of important roles in the body. It is a major component of all cell membranes. The insulation material for nerve fibres, myelin, is rich in cholesterol, thus it is essential for the functioning of the nervous system. Cholesterol is also required for the formation of hormones such as oestrogens and cortisol and for other essential molecules such as vitamin D.

Most of the body's cholesterol is synthesised by the liver, but small amounts are obtained from our diet. It is transported round the body in the blood. Some cholesterol is excreted by the liver as a component of bile — the bile salts. Bile salts are detergents and aid the digestion of fat in

the intestine. A deficiency of bile salts in the intestine prevents complete absorption of fats.

Several different lipoproteins are responsible for the transport of cholesterol through our bodies. Low-density lipoproteins (LDLs) and high-density lipoproteins (HDLs) carry cholesterol between the liver where it is manufactured and the sites in the body where it is used.

Excess LDL cholesterol can infiltrate the walls of blood vessels. This can lead to the dangerous accumulation that increases the risk of coronary heart disease (CHD). High levels of LDL cholesterol are linked directly to the development of atherosclerosis and CHD — a fact that leads us to carry cholesterol carried by LDLs 'bad' cholesterol.

If there is an injury to the interior of the blood vessel wall large foamy cells containing cholesterol form fibrous plaques at the site of the injury. Eventually this leads to a narrowing of the whole vessel. This process is called atherosclerosis, or 'hardening of the arteries', and it can lead to angina (chest pain). If the fatty plaques rupture and a clot forms this can block the coronary artery completely, causing part of the heart muscle to be severely damaged by lack of oxygen. This is what we call a heart attack or myocardial infarction. If atherosclerosis affects the arteries supplying the brain, a stroke may result, while narrowing of the arteries in the legs can lead to tissue death and gangrene.

HDLs remove excess cholesterol from peripheral tissues, returning it to the liver to be broken down and then excreted. High levels of HDL cholesterol have a protective effect and so cholesterol transported by HDLs is called 'good' cholesterol.

***Ex. 6. Give the English equivalents for the words :***

основной компонент, изолирующий материал, нервные волокна, поступать вместе с пищей, переносить (2) холестерин по телу, вырабатываться печенью, выделяться печенью, желчь, переваривание жира, расщеплять холестерин, кишечник, мешать полному поглощению жиров, липопротеины низкой плотности (ЛНП), липопротеины высокой плотности (ЛВП), вредный холестерин, полезный холестерин, быть непосредственно связанным, бляшка – бляшки, происходить (2), сужение сосудов, приводить к боли в груди, тромб, стенокардия, развитие ишемической болезни сердца (ИБС), инфаркт миокарда, инсульт, некроз ткани, гангрена, производить защитное действие.

***Ex. 7. Complete the sentences.***

1. Cholesterol is ... .
2. Cholesterol is manufactured by ... and is ... from the diet.
3. It is excreted as ... .



4. Cholesterol is important for ... .
5. Cholesterol is transported in the body by ... .
6. LDL cholesterol is called 'bad' cholesterol because it can ... and ... .
7. HDL cholesterol has a protective effect for the body because it ... and ... .
8. Accumulation of cholesterol in the blood vessel walls leads to ... .

**Ex. 8. Prove the following statements by additional facts:**

1. Cholesterol performs a number of important functions.
2. The levels of cholesterol in the blood should be constantly monitored.
3. Mechanical, toxic and viral injuries to the vessels may cause a stroke, coronary heart disease or gangrene of the extremities.

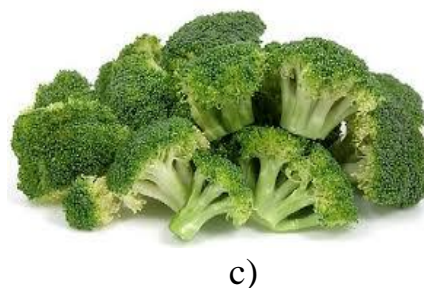
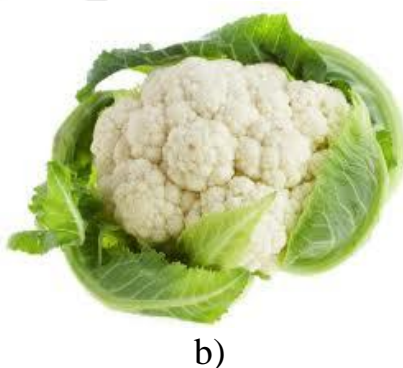
### SPEECH PRACTICE

**Ex. 9. Work in pairs and discuss the role of fats in the human body.**

### LESSON 4 VITAMINS

**Ex. 1. Match the pictures with the names of the fruits and vegetables :**

cawiflower	[ˈkɔ:lɪflaʊə]	цветная капуста
broccoli	[ˈbrɒkəli]	брокколи
lettuce	[ˈletɪs]	салат-латук
spinach	[ˈspɪnɪʃ]	шпинат
parsley	[ˈpɑ:sli]	петрушка
grapes	[greɪps]	виноград
apricot (pl. apricots)	[ənˈeɪprkət]	абрикос
tangerine (pl. tangerines)	[tæn(d)ʒəˈri:n]	мандарин
peach (pl. peaches)	[pi:tʃ]	персик





d)



e)



f)



g)



h)



i)

**Ex. 2. Read the text and insert the missing prepositions:**

### **Vegetables and Fruit**

**Vegetables** contain many vitamins and minerals. For example, green vegetables typically contain a large amount \_\_\_ vitamin C; dark orange and dark green vegetables are high \_\_\_ vitamin A content, while bushy vegetables like broccoli and cauliflower contain iron and calcium. Vegetables are very low \_\_\_ fat and calories but the method \_\_\_ cooking can add fat and calories \_\_\_ them.

**The fruit group** includes oranges, apples, bananas, berries, grapes and plums. The majority \_\_\_ fruits are low \_\_\_ calories and fat along with being the major source \_\_\_ natural sugars, fiber and vitamins.

Fruit and vegetables may be fresh, frozen, canned, dried, or made \_\_\_ juice. But making fruit juices or canning fruit often requires adding sugar \_\_\_ them which removes essential nutrients. So it is much healthier to eat raw vegetables and fruit or have freshly squeezed juices.

A diet rich \_\_\_ fruits and vegetables can decrease the risk \_\_\_ having a heart attack or stroke, protect \_\_\_ a variety of cancers, lower blood pressure.

The human body is unable to store most vitamins so you must consume vitamins \_\_\_ a regular basis to avoid vitamin deficiency. It is recommended that we consume fruit and vegetables \_\_\_ every meal and eat \_\_\_ 8 \_\_\_ 10 servings \_\_\_ them a day.

**Ex. 3. Practice the pronunciation of the words in italics. Then read the text about vitamins and fill in the gaps with the words from the list:**

## Vitamins

### Part A

<i>avitaminosis</i>	<i>compounds</i>	<i>growth</i>
<i>overdose</i>	<i>disorders</i>	<i>insufficiency</i>
<i>provided</i>	<i>bacterial</i>	<i>amounts</i>
<i>source</i>	<i>hypervitaminosis</i>	<i>metabolic</i>

Vitamins are organic 1) \_\_\_\_\_, which the human body cannot produce or produces in small 2) \_\_\_\_\_ in the digestive system thanks to specific 3) \_\_\_\_\_ flora. Therefore, they must be 4) \_\_\_\_\_ together with food.

Vitamins are compounds which are neither a 5) \_\_\_\_\_ of energy nor structural tissue ingredients but they are essential to 6) \_\_\_\_\_ and proper 7) \_\_\_\_\_ processes. 8) \_\_\_\_\_ of vitamins in the body causes hypovitaminosis and their deficiency is called 9) \_\_\_\_\_. Even slight deficiency of vitamins may lead to different kinds of 10) \_\_\_\_\_. However, excessive consumption or 11) \_\_\_\_\_ of some of the vitamins is very harmful as well and may be the cause of 12) \_\_\_\_\_, with symptoms of poisoning.

### Part B

<i>cereals</i>	<i>substances</i>	<i>experiments</i>
<i>vegetables</i>	<i>protective</i>	<i>diet</i>
<i>requirements</i>	<i>vitamin-containing</i>	<i>health</i>
		<i>life</i>

Vitamins are 1) \_\_\_\_\_ found in certain foods (e. g., 2) \_\_\_\_\_ such as wheat, corn and oats), invaluable for the maintenance of growth, development and general 3) \_\_\_\_\_ of the body. (The root «vita» indicates that the substance is essential to 4) \_\_\_\_\_.)

There are several different kinds of these 4) \_\_\_\_\_ substances in the diet. To make sure our bodies get all the vitamins they need, it is best to include several different 5) \_\_\_\_\_ foods in the diet. Such foods include milk and many of the products made from it, all the green leafy 6) \_\_\_\_\_ like spinach, cabbage, lettuce, other fresh vegetables, fruit and fruit juices, whole-grained cereals, eggs and a number of others.

Experts in the study of foods are constantly conducting 7) \_\_\_\_\_ and still making their discoveries to find out which foods that are the best sources for each body 8) \_\_\_\_\_. Such knowledge enables us to select the proper foods in order to protect the body against the diseases caused by imbalanced 9) \_\_\_\_\_.

### *Ex. 3. Discuss in pairs:*

1. What foods provide the greatest amount of vitamins?
2. What vegetables do you like to eat? What fruit do you like?
3. What berries do you eat every summer? What berries do you eat in winter?
4. How does the method of cooking fruit and vegetables affect their nutritional value?
5. How should you consume them to preserve as many vitamins as possible?
6. Why is it necessary to eat vegetables and fruit regularly?
7. What diseases can you prevent by following a vitamin diet?

**Ex. 4. a) Read the text with a dictionary. Remember the information about the functions and sources of vitamins.**

**b) Write out the names of:**

dairy products \_\_\_\_\_  
 meat \_\_\_\_\_  
 nuts \_\_\_\_\_  
 vegetables \_\_\_\_\_  
 leafy vegetables \_\_\_\_\_  
 fruits \_\_\_\_\_

**c) Put 5 types of questions to the text.**

### **The functions and sources of vitamins**

Each vitamin is typically used in multiple reactions, and, therefore, most have multiple functions.

**Vitamin A (Retinol)** is important for healthy bones, teeth, mucous membranes and skin. It aids vision, especially in the dark; promotes normal growth and development. Carotenoids, which are other forms of vitamin A, are not vitamins but some types can turn into vitamin A in the body. They act as powerful antioxidants which protect your body from damage caused by harmful molecules called free radicals. The symptoms of vitamin A deficiency include poor night vision, eye problems, weakened immune system and susceptibility to infections. The sources of retinol are meat, eggs, oily fish, liver, milk, cheese, kidney. Carotenoids are plentiful in carrots, sweet potatoes, apricots, cantaloupe melon, broccoli, spinach, pumpkin and all other green and orange fruits and vegetables.

**Vitamin B<sub>1</sub> (Thiamin)** protects the heart and the nervous system from the build-up of toxic substances and is needed to convert carbohydrates and fats into energy. The symptoms of its deficiency in the body include tiredness and fatigue, muscle weakness, nerve damage, confusion, enlargement of the heart and tend to be common in alcoholics. The sources of Vitamin B<sub>1</sub> are lean meats

particularly pork, fortified bread and cereals, whole grains, dried beans, potatoes, spinach, nuts, peas, yeast.

**Vitamin B<sub>2</sub> (Riboflavin)** is vital for growth, the production of red blood cells and releasing energy from food. It stimulates absorption of other B vitamins by the body. The symptoms of deficiency may be skin disorders, dry and cracked lips, bloodshot eyes and sore throat, although vitamin B<sub>2</sub> deficiency is not common in the developed world. Good sources of riboflavin are poultry, lean meat, eggs, milk, fish, yoghurt, yeast, beans, almonds, leafy green vegetables and fortified breads and cereals.

**Vitamin B<sub>3</sub> (Niacin)** maintains a healthy skin and keeps the digestive system working well. It stimulates the work of enzymes and helps the human body use protein, fat and carbohydrate to produce energy. The symptoms of vitamin B<sub>3</sub> deficiency are skin disorders, fatigue, depression and diarrhoea. Niacin is found in poultry, lean meat, peanuts, beans, potatoes, milk, eggs, liver, heart, kidney, fortified breakfast cereals, broccoli, carrots, avocados, tomatoes, dates, sweet potatoes, whole grains, mushrooms.

**Vitamin B<sub>5</sub> (Pantothenic acid)** is needed for the metabolism and synthesis of all foods. Vitamin B<sub>5</sub> is found in all foods in small quantities. Its deficiency is extremely rare, however, symptoms may include tiredness and a loss of feeling in the toes. The best sources of vitamin B<sub>5</sub> are eggs, meat, liver, dried fruit, fish, whole grain cereals.

**Vitamin B<sub>6</sub> (Pyridoxine)** is required for the formation of red blood cells and various neurotransmitters, and helps to maintain nerve function, a healthy immune system and healthy antibodies. It also helps the body produce and use protein and glycogen which is the stored energy in the muscles and liver. Due to a lack of vitamin B<sub>6</sub> deficiency a person may have skin disorders, mouth sores, confusion, depression and anaemia. Vitamin B<sub>6</sub> is obtained in the body with lean meat, eggs, chicken, liver, fish, beans, nuts, whole grains and cereals, bananas and avocados.

**Vitamin B<sub>7</sub> (Biotin)** is essential in the metabolism and synthesis of essential fatty acids, carbohydrates and fats and the release of energy from these foods. It keeps hair, skin and nails healthy and stimulates better absorption of protein, fat and carbohydrate from food. Deficiency of biotin is rare but can occur if large amounts of raw egg whites are consumed. Symptoms include hair loss or brittle hair, skin rashes and fungal infection. This could lead to depression and muscular pain. Biotin is found in almost all types of food. High amounts are present in liver, butter, yeast extracts, eggs, dairy produce and fortified cereals.

**Vitamin B<sub>9</sub> (Folic acid, or Folate)** is required for the production of red blood cells, DNA and proteins in the body and prevents anemia. It is important for the growth and repair of cells and tissues, especially during pregnancy. Getting enough folic acid lowers the risk of having a baby with birth defects

therefore all women who could become pregnant, expectant mothers and breastfeeding women should take a daily multivitamin containing 0.4 mg of folic acid. Deficiency of folic acid can cause anaemia, incorrect absorption of essential nutrients and neural tube defects in babies. Folate naturally occurs in leafy green vegetables, citrus fruits, pulses, wheat germs, fortified cereals, liver, pork, poultry, broccoli, yeast.

**Vitamin B<sub>12</sub>** is required for the metabolism process and to maintain the nervous system; helps to produce healthy blood cells; participates in the production of DNA. Low levels of vitamin B<sub>12</sub> cause tiredness and fatigue, tingling and numbness in the hands and feet, loss of memory, anaemia and confusion. The well-known sources of vitamin B<sub>12</sub> are eggs, shellfish, poultry, meat, dairy produce, liver, fortified cereals.

**Vitamin C (Ascorbic acid)** is required daily and is necessary for a number of functions in the body. It is required for the formation of collagen, which helps to maintain healthy skin, teeth, gums, tendons and ligaments. Ascorbic acid is required to form neurotransmitters such as dopamine in the brain and helps to reduce any damage to the body from toxic substances and chemicals. It increases the amount of iron your body absorbs from foods. Vitamin C aids to heal wounds quicker, strengthen the immune system and fight cancerous cells. If you smoke you need an extra 35 mg of vitamin C each day. It may help prevent cell damage and reduce risk for certain cancers, heart disease and other diseases.

A deficiency of vitamin C makes individuals susceptible to infections, results in slower healing of wounds, dental and gum problems, fatigue, loss of appetite, dry skin, painful joints, anaemia and a slower metabolism. It is found in citrus fruits, melon, strawberries, black currants, green peppers, tomatoes, broccoli, kiwi fruit, potatoes, dark green leafy vegetables, red peppers, mango, papaya, cauliflower, pineapple, blueberries, raspberries and cranberries.

**Vitamin D** is needed to absorb calcium and phosphorus from foods, strengthen bones and teeth and can prevent the onset of osteoporosis. It is also known as the “sunshine” vitamin, as 15 minutes of exposure to the sunshine, three times a week will enable the body to manufacture all the vitamin D that it needs. Protects the body against infections by strengthening immune system. Deficiency of vitamin D is known to cause softening and weakening of the bones (rickets), insomnia, nervousness and muscle weakness. To avoid them it’s recommended to consume more dairy produce, oily fish and fish oils, eggs, oysters and fortified cereals.

**Vitamin E (Tocopherol)** is an important antioxidant that protects the cells and tissues from harmful substances and free radicals, helping to maintain a healthy immune system and other body processes. Besides preventing cancer, it is also known to prevent cardiovascular and heart disease. Vitamin E is often added to skin creams, due to claims that it may delay the ageing process. Its

deficiencies are not very common but may include some nerve damage. Foods rich in vitamin E are vegetable oils such as palm, sunflower, olive and soybean; nuts, seeds, wheat germs, spinach, green leafy vegetables, asparagus and cereals.

**Vitamin K** is essential for blood clotting, which is important if large amounts of blood is lost. It also helps to maintain strong bones and could prevent osteoporosis. Makes proteins that cause our blood to clot, when you are bleeding. It's interesting to know that the German-speaking scientists who isolated and described vitamin K (in addition to naming it as such) did so because the vitamin is intimately involved in the *Koagulation* of blood following wounding. At the time, most (but not all) of the letters from F through to J were already designated, so the use of the letter K was considered quite reasonable. Deficiency of vitamin K is rare, as it is manufactured in the body. The signs of deficiency may include easy bruising and bleeding. Other sources of the vitamin are spinach, cauliflower, kale, green leafy vegetables, soy beans, spring onions and pistachio nuts.

**Ex. 5. Say what vitamins perform the following functions and use the verb in brackets in the necessary form:**

**Names of the vitamins:**

**Functions of the vitamins:**

- |       |   |
|-------|---|
| _____ | (to be) effective in the treatment of eye diseases. |
| _____ | (to improve) the work of the thyroid gland.         |
| _____ | (to strengthen) immunity.                           |
| _____ | (to improve) metabolic processes in the human body. |
| _____ | (to help) to stop bleeding.                         |
| _____ | (to be) good for the skin.                          |
| _____ | (to be) important for the formation of bones.       |
| _____ | (to prevent) cancer.                                |

**Ex. 6. Say what vitamins the following foods are rich in:**

mackerel, strawberries, carrots, tomatoes, potatoes, salmon, cheese, almonds, wheat, cabbage, broccoli, eggs, milk, lettuce, cauliflower, avocado, spinach, rice, onions.

**Ex. 7. Say what vitamin-rich products you will recommend to a patient with:**

- a poor eye-sight \_\_\_\_\_
- high blood pressure \_\_\_\_\_
- frequent nose bleedings \_\_\_\_\_
- skin problems \_\_\_\_\_

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---

– a weak immune system \_\_\_\_\_

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*Ex. 8. Put your questions about vitamins to your fellow-students and answer their questions on the text.*

*Ex. 9. Working in small groups name the main functions of different vitamins.*

*Ex. 10. Read the text about hypo- and hypervitaminosis. Pay attention to the pronunciation of the words:*

amount	[əˈmaʊnt]	scurvy	[ˈskɜːvi]	diarrhea	[ˌdaɪəˈrɪə]
deficiency	[dɪˈfɪʃ(ə)nəsi]	rickets	[ˈrɪkɪts]	adequate	[ˈædɪkwɪt]
beriberi	[ˌberɪˈberɪ]	overdosing	[ˈəʊvədəʊsɪŋ]	thiamine	[ˈθaɪəmiːn]
pellagra	[pəˈlægrə]	nausea	[ˈnəʊsiə]	niacin	[ˈnaɪəsɪn]

### **Hypovitaminosis and Hypervitaminosis**

Humans must consume vitamins periodically to avoid deficiency. People who eat a varied diet are unlikely to develop a severe primary vitamin deficiency.

The human body's stores for different vitamins vary widely; vitamins A, D, and B<sub>12</sub> are stored in significant amounts in the human body, mainly in the liver, and an adult human's diet may be deficient in vitamins A and D for many months and B<sub>12</sub> in some cases for years, before developing a deficiency condition. However, vitamin B<sub>3</sub> (niacin and niacinamide) is not stored in the human body in significant amounts, so stores may last only a couple of weeks.

Well-known human vitamin deficiencies involve thiamine (beriberi), niacin (pellagra), vitamin C (scurvy), and vitamin D (rickets). In much of the developed world, such deficiencies are rare due to an adequate supply of food and the addition of vitamins and minerals to common foods, often called fortification. In addition to these classical vitamin deficiency diseases, some evidence has also suggested links between vitamin deficiency and a number of different disorders.

In large doses, some vitamins have documented side-effects that tend to be more severe with a larger dosage. The likelihood of consuming too much of any vitamin from food is remote, but overdosing (vitamin poisoning) from vitamin supplementation does occur. At high enough dosages, some vitamins cause side-effects such as nausea, diarrhea, and vomiting. When side-effects emerge, recovery is often accomplished by reducing the dosage. The doses of vitamins differ because individual tolerances can vary widely and appear to be related to age and state of health.



**Ex. 11. Match the English-Russian equivalents:**

- |   |  |
|---|--|
| 1) разнообразно питаться                              | a) not to be stored in the human body in significant amounts |
| 2) запас различных витаминов в организме человека     | b) individual tolerance                                      |
| 3) рахит  | c) scurvy  |
| 4) цинга  | d) rickets   |
| 5) не накапливаться в организме в больших количествах | e) vomiting  |
| 6) авитаминоз (2)                                     | f) nausea  |
| 7) тошнота  | g) the human body's stores for different vitamins            |
| 8) рвота  | h) to reduce the dosage                                      |
| 9) (о симптомах) усиливаться в зависимости от         | i) fortification of foods                                    |
| 10) уменьшить дозировку                               | j) to be more severe with                                    |
| 11) отравление  | k) remote likelihood   |
| 12) небольшая вероятность                             | l) vitamin deficiency disease, avitaminosis                  |
| 13) индивидуальная переносимость                      | m) poisoning   |
| 14) витаминные добавки                                | n) to eat a varied diet                                      |
| 15) витаминизация продуктов                           | o) vitamin supplementation                                   |

**Make examples of your own with these expressions.**

**Ex. 12. Use the following terms to complete the sentences below.**

**Beriberi pellagra scurvy rickets vomiting diarrh(o)ea nausea**

1. \_\_\_\_\_ is a disease caused by a lack of vitamin C, characterized by anaemia, spongy gums, bleeding beneath the skin, and (in infants) malformation of bones and teeth.

2. \_\_\_\_\_ is a disease, endemic in East and South Asia, caused by dietary deficiency of thiamine (vitamin B1). It affects the nerves to the limbs, producing pain, paralysis, and swelling.

3. \_\_\_\_\_ is a disease mainly of children, characterized by softening of developing bone, and hence bow legs, malnutrition, and enlargement of the liver and spleen, caused by a deficiency of vitamin D.

4. \_\_\_\_\_ is a disease caused by a dietary deficiency of nicotinic acid, characterized by burning or itching often followed by scaling of the skin, inflammation of the mouth, diarrhoea, mental impairment, etc.

5. \_\_\_\_\_ is ejection of the contents of the stomach through the mouth as the result of involuntary muscular spasms of the stomach and oesophagus.

6. \_\_\_\_\_ is the sensation that precedes vomiting.

7. \_\_\_\_\_ frequent and copious discharge of abnormally liquid stool.

**Ex. 13. Say if the sentences are true or false:**

1. Vitamin deficiency diseases can be caused only by a poor diet.
2. Humans must consume all the vitamins daily to avoid their deficiency.
3. In developed countries vitamin deficiencies are rare due to the fortification of foods.
4. All vitamins last in the body just a few days.
5. The most common vitamin deficiencies are beriberi, pellagra, scurvy and rickets.
6. The greater the amount of vitamins we consume daily, the better.
7. Hypervitaminosis is usually caused by taking vitamin supplements rather than eating raw fruit and vegetables.

**Ex. 14. Using the expressions from ex. 11 explain why it is necessary to consume vitamins but to control their doses.**

**Ex. 15. Read the text about the ways to prevent losses of vitamins from the food and insert the missing prepositions:**

#### **What to do to prevent vitamin losses**

Many vitamins are found \_\_\_\_\_ fruit and vegetables. Ideally, these food sources should be eaten raw, as vitamins can be lost or partially lost \_\_\_\_\_ the cooking process.

**To prevent losses \_\_\_\_\_ natural vitamins \_\_\_\_\_ food try to:**

- cook vegetables and fruit \_\_\_\_\_ steam best,
- if you boil vegetables, use a small amount \_\_\_\_\_ water, which then can be used \_\_\_\_\_ sauces or soups,
- prepare meals as late as possible \_\_\_\_\_ serving them,
- prepare salads \_\_\_\_\_ freshly cut vegetables, otherwise they lose vitamins B and C,
- use vessels made \_\_\_\_\_ stainless steel because cooking \_\_\_\_\_ copper pots destroys vitamins C, E and folic acid,
- always buy fresh products, especially vegetables and fruit only \_\_\_\_\_ such quantity which can be used \_\_\_\_\_ several days,
- keep pod vegetables, pasta, rice, flour \_\_\_\_\_ dark containers because sun rays destroy vitamin B<sub>2</sub> contained \_\_\_\_\_ them,
- being in water too long vegetables lose vitamins B and C, so it is best to wash them using a brush \_\_\_\_\_ running water,
- do not expose milk and dairy products \_\_\_\_\_ direct sun rays because they will lose vitamins A, D and B<sub>2</sub>,

- keep fresh vegetables and dairy products \_\_\_\_\_ a fridge (\_\_\_\_\_ a constant temperature \_\_\_\_ 4°C). Frozen foods should be kept \_\_\_\_\_ a temperature \_\_\_\_ – 18°C. Canned and dried food should be stored \_\_\_\_\_ a cool and dry place.

**Ex. 16.** Say which of these rules you always / usually / generally / rarely / seldom / (almost) never follow.

**Ex. 17.** Make a dialogue following the instructions below:

**Student 1** – You are the mother of a 10-year-old girl and you are explaining to your daughter how to do household chores about the kitchen.

**Student 2** – You are a 10-year-old girl, you like to ask the question “Why?” and now you are interested in keeping the kitchen, ways to cook different things and all the foods stored in your fridge.

## LESSON 5 CONSOLIDATION

**Ex. 1. a) Pay attention to the pronunciation:**

iron	[ˈaɪən]	железо
calcium	[ˈkælsiəm]	кальций
zink	[zɪŋk]	цинк
the thyroid gland	[ðə ˈθaɪrɔɪd ˈglænd]	щитовидная железа
deficiency	[dɪˈfɪʃnsɪ]	недостаточность
blood pressure	[ˈblʌd ˈpreʃə]	кровяное давление
carcinogenic	[ˈkɑːsɪnə(ʊ)ˈdʒenɪk] = causing cancer	

**b) Pay attention to the meaning of the words:**

a serving [ə ˈsɜːvɪŋ] — порция  
 to freeze — замораживать  
 to dry — сушить  
 to squeeze [tə ˈskwiːz] — выжимать  
 to add [tə ˈæd] — добавлять  
 to store [tə ˈstɔː] — накапливать  
 to can — консервировать

**c) Translate the word combinations:**

frozen vegetables, canned berries, dried fruit, a freshly squeezed juice, food additives

**Ex. 2.** Guess what nutrients are described:

1) This group of nutrients includes calcium, magnesium, potassium, sodium, sulphur and other elements. Each of them has its own job. For example, calcium is needed for the maintenance of muscles and bones, clearing toxins from the blood and improving the work of the digestive system, while sulphur is responsible for the health of the skin, hair, nails, liver and the pancreas.

2) These nutrients are required in small amounts and are essential for normal metabolic reactions in the body. Most of these substances cannot be produced by the body, so they must be received daily from the diet.

3) The digestive juices in the stomach and intestine break down these foodstuffs into amino acids. These amino acids are then used to make new substances that our body needs to maintain the muscles, bones, blood and body organs.

4) These chemicals are made up of fatty acids. Two fatty acids (omega-3 and omega-6) are essential for the body and must be consumed in the diet. These essential nutrients are found in plant foods and fish and are good for the heart.

5) These foodstuffs are contained in grain products including bread, crackers, pasta, and rice. They are broken down by the body into simple sugars and give energy for a long period of time.

### GRAMMAR REVISION

*Ex. 3. Read the text about fiber in pairs (Student 1 — on page 28, Student 2 — on page 29). Ask your partner special questions to fill in the missing information in your text.*

#### TEXT FOR STUDENT 1 ONLY

##### Fibre

Fruit and vegetables are an important source of dietary fibre — both soluble and insoluble, they are almost fat free and low in calories. It's recommended that adults need to eat about \_\_\_\_ g of fibre a day.

Dietary fibre is found in plant foods (fruit, vegetables and whole grains) and is essential for \_\_\_\_\_.

The two types of fibre found in food are soluble and insoluble.

Soluble fibre, which can be dissolved in \_\_\_\_\_, is found in beans, fruit and oat products, and can help to lower blood fats and maintain blood sugar.

Insoluble fibre cannot be dissolved in water, so it passes directly through the digestive system. It's found in whole grain products and vegetables and it increases the rate at which food passes through the intestines.



Fibre improves the digestive process. As \_\_\_\_\_, they make a person feel full for a longer time. Fibre promotes bowel regularity and keeping the digestive tract clean helps reduce the risk of constipation. A high-fibre diet may also reduce the risk of \_\_\_\_\_. The slow and steady digestion of food through the intestines helps control blood sugar and lower \_\_\_\_\_.

### TEXT FOR STUDENT 2 ONLY

#### Fibre

Fruit and vegetables are an important source of dietary fibre — both soluble and insoluble, they are almost fat free and low in calories. It's recommended that adults need to eat about 18g of fibre a day.

Dietary fibre is found in \_\_\_\_\_ and is essential for maintaining a healthy digestive system. The two types of fibre found in food are \_\_\_\_\_ and \_\_\_\_\_.

Soluble fibre, which can be dissolved in water, is found in beans, fruit and oat products, and can help \_\_\_\_\_.

\_\_\_\_\_ fibre cannot be dissolved in water, so it passes directly through the digestive system. It's found in whole grain products and vegetables and it increases the rate at which food passes through the intestines.



Fibre improves the digestive process. As high-fibre foods take longer to digest, they make a person feel full for a longer time. Fibre promotes bowel regularity and \_\_\_\_\_ helps reduce the risk of constipation. A high-fibre diet may also reduce the risk of developing diabetes and colorectal cancer.

The slow and steady digestion of food through the intestines helps control \_\_\_\_\_ and lower blood cholesterol.

***Ex. 4. Speak about the importance of fiber in our diet.***

***Ex. 5. Complete the disjunctive questions:***

- 1) She often skips breakfast, \_\_\_\_\_?
- 2) We should eat slowly and chew our food well, \_\_\_\_\_?
- 3) You never eat anything while using the computer, \_\_\_\_\_?
- 4) He can have one or two low calory snacks a day, \_\_\_\_\_?
- 5) We have to stop frying food, \_\_\_\_\_?
- 6) You eat a substantial breakfast every day, \_\_\_\_\_?
- 7) It's recommended to eat more at times when you are going to be most active, \_\_\_\_\_?
- 8) She has a lot of allergies. She can't eat fish, \_\_\_\_\_?
- 9) Look! Your baby sister isn't thoroughly chewing her food, \_\_\_\_\_?
- 10) You must eat garlic and onions to prevent infections, \_\_\_\_\_?
- 11) Vegetarians don't eat meat, \_\_\_\_\_?

***Ex. 6. Work in groups of three. Each of you should read a different newspaper article about the results of research on selenium. Entitle your article and report about the facts you have read to your fellow students.***

**Text 1**

An abundance of selenium in the body allows us to counteract the harmful effects of tobacco, alcohol, and a poor diet. This is the conclusion reached by two major European population studies involving thousands of participants.

For three years researchers from The State University Hospital, Copenhagen, monitored 3,000 Danish men between the ages of 53 and 74 in order to investigate whether selenium could in any way affect the incidence of coronary thrombosis. Participants were asked questions about their smoking and drinking habits, their diet, and how much they exercised. At the end of the three-year period the research scientists concluded that those men with low levels of selenium in their bloodstream ran a 70 per cent higher risk of suffering from a coronary disease than those with adequate levels of selenium.

### **Text 2**

It is highly probable that selenium plays an especially important role as a preventative antioxidant, protecting the body against the harmful effects of tobacco, among other things.

Holland's Cancer Foundation carried out a population survey involving 120,000 Dutchmen. The conclusion was that it is highly probable that selenium helps prevent the development of lung cancer and cancer of the stomach among men. This result was confirmed by an American-Chinese scientific study undertaken in one of the Chinese provinces where the levels of selenium in the normal diet are low, and where there is a high incidence of cancer of the stomach. The 30,000 participants in the study were divided into two groups: one group was given a daily dietary supplement of selenium, vitamin E and beta-carotene; the other, a harmless placebo. During the course of the five years the study lasted, researchers observed that the incidence of cancer of the stomach fell by 21 per cent in the vitamin group, and that the overall mortality rate for this group was reduced by 9 per cent.

### **Text 3**

Two large population studies have shown that those people with a basically unhealthy lifestyle can minimize their chances of suffering from the consequences if they have a high enough level of selenium in their bloodstream.

Selenium is contained in foodstuffs such as eggs, fish, and grain products, but a growing number of nutritionists have reached the conclusion that the amount of selenium in the average diet is too low to provide the necessary protection. There is therefore a growing interest in increasing the intake of selenium among the population in the hope that this will help prevent many of the most common modern illnesses.

Taking a dietary supplement with selenium provides a real opportunity to compensate for its deficiency which some doctors and research scientists view

with increasing concern. And new surveys continue to point towards the likelihood that we do not receive enough selenium, even in a healthy and varied diet.

### INTENSIVE READING

*Ex. 7. Now read all the three articles carefully. Find in them the most important ideas. Compare your results with your partner's.*

*Ex. 8. What was the significance of the following numbers in the texts?*

3,000    120,000    30,000    53 to 74    70 %    21 %    9 %

*Model:* 3,000 Danish men were monitored to investigate the association between the levels of selenium in their bodies and the incidence of coronary thrombosis.

*Ex. 9. Match the beginnings of the sentences in column A with the endings in column B.*

- |  |   |
|--|---|
| 1. Selenium deficiency increases                               | a. involving 120.000 Dutchmen.                                  |
| 2. Low levels of selenium are associated                       | b. prevent harmful effects of tobacco, alcohol and a poor diet. |
| 3. Two major European studies                                  | c. to provide the necessary protection.                         |
| 4. Holland's cancer foundation carried out a population survey | d. with increasing concern.                                     |
| 5. It is highly probable that selenium helps                   | e. the risk of coronary thrombosis.                             |
| 6. The amount of selenium in the average is too low            | f. with a high incidence of cancer of the stomach.              |
| 7. Research scientists view selenium deficiency                | g. involved thousands of participants.                          |

*Ex. 10. Answer the questions based on the three texts :*

1. What was the main conclusion reached by two major European population studies on selenium?
2. What did researchers from the State University Hospital in Copenhagen investigate?
3. What findings were obtained as a result of the research?
4. What study proves an important role of selenium in preventing the development of lung cancer and cancer of the stomach among men?
5. What study confirmed this result?
6. How was the study carried out?
7. What did the researchers observe in the course of the study?
8. In what foodstuffs is selenium contained?
9. Do we get enough selenium in our diet?



10. Why is it important to increase the intake of selenium?

**Ex. 11. Sum up the findings about the impact of selenium on the human body.**

### SPEECH PRACTICE

**Ex. 12. Say what products in your opinion should make our diet in the following proportions every day? Write the names of the food groups against the appropriate numbers (choose from the box):**

<p><i>Meat, poultry, fish, dry beans, eggs &amp; nuts</i> <i>Fats, oils</i> <i>Dairy products</i> <i>Sweets and alcohol</i> <i>Fruit and vegetables</i> <i>Bread, other cereals, rice, potatoes &amp; pasta</i></p>
---

33 % \_\_\_\_\_  
32 % \_\_\_\_\_  
15 % \_\_\_\_\_  
12 % \_\_\_\_\_  
7 % \_\_\_\_\_  
0–1 % \_\_\_\_\_

**Name the most common products of each group.**

**Say which foods are the most important to our health and we should eat them daily — and which foods are unhealthy and why?**



**Ex. 13. You are a dietician. Give advice on proper nutrition :**

**a) by matching the products with their action :**

- |   |   |
|---|---|
| 1. You should eat some oatmeal for breakfast.             | a) It is full of essential fatty acids (omega-3s).  |
| 2. Eat a few nuts every day.                              | b) Using it helps to control cholesterol levels.  |
| 3. Add olive oil to your salads.                          | c) They contain lots of calcium and protein.  |
| 4. Eat one or two boiled eggs in the morning.             | d) It includes lots of fiber, which stays in your stomach and makes your digestion longer.  |
| 5. Choose fish instead of red meat.                       | e) They have low calorie contents and are a good source of vitamins, minerals and fiber.  |
| 6. You can eat a bean rich dish everyday instead of meat. | f) They have low calories and include protein and fiber. So you will replace saturated fat to fiber.  |
| 7. You should eat lots of green vegetables.               | g) They are oily and calorie rich foods, but they contain healthy oils, which are good for the heart, the bones and your health as a whole. |
| 8. Each avocado includes 11–17 grams of fiber.            | h) It is rich in antioxidants and helps you burn more calories.   |
| 9. Choose low-fat milk products.                          | i) They are a perfect source of vitamin B <sub>12</sub> and protein.  |

10. You can have green tea instead of black tea or coffee. j) Besides they are full of fiber, they contain lots of monounsaturated fats which are heart-healthy.

**b) by arranging the words in the sentences in the necessary order :**

- 1) Can, you, everything, but, portions, in, small, eat.
- 2) Avoid, the diet, in, lard, or, butter, such, as, fats, saturated, margarine.
- 3) May, hidden, be, the, fat. Saturated, biscuits, and, cakes, full, of, are, fat.
- 4) Use, red, foods, in, your, less, meat.
- 5) Fruit, make, and, rich, your, diet, in, vegetables.
- 6) Freshly, have, and, squeezed, low-sugared, juices.
- 7) Low-fat, products, such, as, choose, low-fat, cheese, milk, and, yogurt.
- 8) Drinking, avoid, alcohol, of, an, excessive, amount.

**c) by completing the list with your own pieces of advice :**

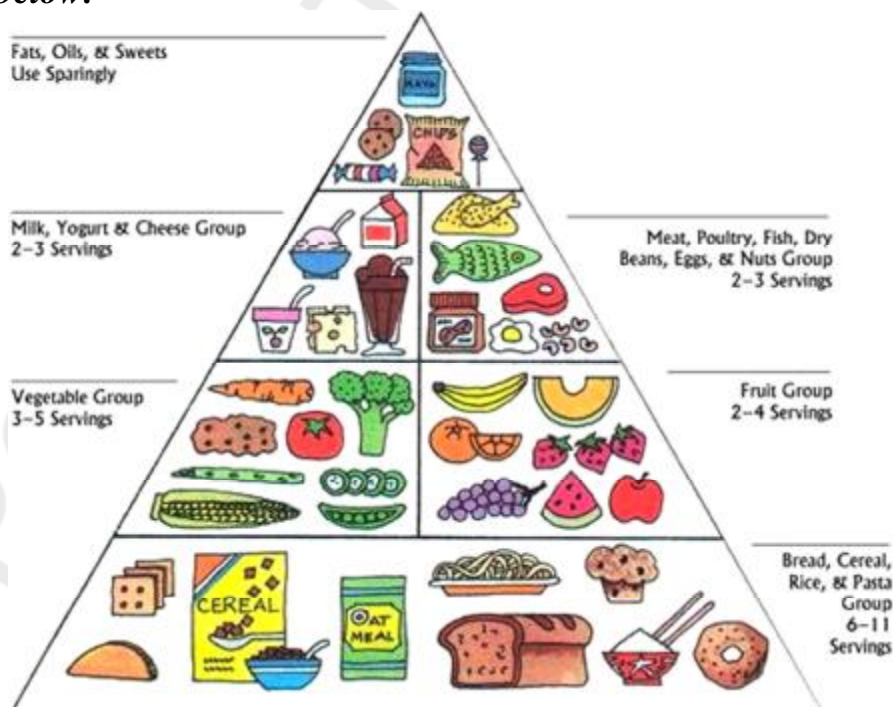
- 9) \_\_\_\_\_
- 10) \_\_\_\_\_

**Ex. 14. Make up dialogues between a physician and a patient. Take turns to act in different roles. Follow the instructions below :**

	<b>Student 1</b>	<b>Student 2</b>
<b>1</b>	You are a dietician. Ask the patient what he is complaining of, question him on his diet, make your diagnosis, give him pieces of advice concerning his diet, explain the benefit of the food products you are recommending, ask the patient to take care of himself.	You are an engineer. You have to work long hours at different construction projects and after work you have too little time for physical activities. At your dinner time you usually go to a cafeteria to have some fast food. Tell the doctor what you usually eat during the day. Complain of gaining weight, ask about the ways to lose it.
<b>2</b>	You are a therapist. Ask the patient what he is complaining of, question him on his diet, make your diagnosis, give him pieces of advice concerning his diet, explain the benefit of the food products you are recommending, ask the patient to take care of himself.	You are a medical student. You have to study hard, often even to stay up late at night to learn a lot of information for your practical classes. Lately you have noticed that your vision is weakening. Ask the doctor about some measures to improve your eye-sight.

3	<p>You are a therapist. Ask the patient what he is complaining of, what products he usually eats, make your diagnosis, give him pieces of advice concerning his diet, explain the benefit of the food products you are recommending, ask the patient to take care of himself.</p>	<p>You are an elderly person who has just retired. Your life is associated with great physical exertion and nervous overstrain. Your blood pressure ranges from 140/100 to 160/110 mm Hg. Your pension doesn't allow you to buy a lot of fruit and vegetables, so you get energy mostly from fatty and starchy food. Tell the therapist about your daily diet and ask him about the ways to lower your blood pressure.</p>
4	<p>You are a dietician. Ask the woman what she is complaining of, question her on her daughter's diet, make your diagnosis, give her pieces of advice how to solve the problem by changing her lifestyle, explain the benefit of the food products you are recommending, ask the patients to take care of themselves.</p>	<p>You are the mother of a 14-year-old girl. Like everyone at her age she doesn't follow any daily regime, doesn't have meals at regular times, likes to go to fast food restaurants with her friends, sometimes eats fatty sandwiches before going to bed. As a result she has acne [ˈækni] (угревая сыпь) on her face and red rash [ræʃ] (сыпь) on her back. Ask the doctor about healthy foods for your teen-aged daughter.</p>

**Ex. 15.** *You are a valeologist (specialist on a healthy lifestyle). Give a lecture on the fundamentals of healthy nutrition. Use the Healthy Food Pyramid below.*



## LESSON 6 PROJECT WORK

*Ex. 1. You are a dietician. Make a list of the 10 top healthiest foods. Explain their nutritional value and use for the health. Say how they should be eaten/cooked.*



*Ex. 2. Make group projects on:*

- foods from each food group;
- the role of minerals in our diet;
- the functions of salt in the food;
- the influence of alcohol on the body;
- the role of water for different organs;
- the advantages and disadvantages of vegetarianism.



*Ex. 3. Develop a low cholesterol diet.*

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