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ОСНОВНЫЕ ПРИНЦИПЫ ЗДОРОВОГО ПИТАНИЯ

BASIC PRINCIPLES OF HEALTHY NUTRITION

Практикум



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

Предназначено для студентов, обучающихся по специальностям «Лечебное дело», «Медико-профилактическое дело», «Стоматология», «Педиатрия», «Фармация», по учебной дисциплине «Иностранный язык».

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ПРЕДИСЛОВИЕ

Практикум содержит тексты с комплексом разработанных упражнений, направленных на развитие устной речи, по следующим темам: «Здоровое питание», «Протеины», «Углеводы», «Жиры», «Витамины», «Исследования по питанию».

Разработанная система упражнений способствует оптимизации процесса усвоения предметной лексики и наиболее употребительных грамматических и речевых структур, характерных для англоязычной коммуникации.

Активное использование изучаемого языкового материала, предложенного в ситуациях и дискуссиях, моделирующих речевое общение, предполагает развитие профессиональной иноязычной компетенции, творческого и критического мышления обучающихся, навыков аргументации своего мнения, презентации новых идей, готовность решать коммуникативно-познавательные задачи.

PART 1. HEALTHY NUTRITION

Ex. 1. 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]

Ex. 2. Remember the meaning of the following words and word-combinations:

nutrient (n)	[ˈnjuːtrɪənt]	питательное вещество
nutrition (n)	[njuːˈtrɪʃ(ə)n]	питание
nutritional (adj)	[njuːˈtrɪʃ(ə)n(ə)l]	питательный
carbohydrate (n)	[ˈkɑːbəˈhaɪdreɪt]	углевод
starch (n)	[stɑːtʃ]	крахмал
ascorbic acid	[əˈskɔːbɪk] [ˈæsɪd]	аскорбиновая кислота
poultry (n)	[ˈpəʊltri]	мясо птицы
tissue (n)	[ˈtɪʃuː]	ткань (организма)
rigidity (n)	[rɪˈdʒɪdətɪ]	жесткость, твердость, прочность
adequate (adj)	[ˈædɪkwət]	соответствующий, подходящий
determine (v)	[dɪˈtɜːmɪn]	определить
digestion (n)	[dɪˈdʒestʃən]	пищеварение
dairy products	[deəri]	молочные продукты

to be rich in vitamins
to be in short supply
to meet nutritional standards

быть богатым витаминами
быть в дефиците, не хватать
соответствовать питательным
стандартам

*Ex. 3. Read the text “Healthy nutrition” and find the answer to the question:
“What is the key to good health?”*

HEALTHY NUTRITION

What we eat has a long-term effect on our health and well-being. To look and feel our best we have to eat adequate amounts of proper foods. A healthy diet helps to prevent malnutrition in all its forms, as well as non-communicable diseases (NCDs), including diabetes, heart diseases, stroke and cancer.

The food we eat is required to meet certain nutritional standards. All foods are made of six essential nutrients necessary to sustain life. These nutrients include proteins, carbohydrates, fats, vitamins, minerals and water. Nutrients build our body and allow it to function. Each nutrient has at least one specific function and no other nutrient can replace it.

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 as carbohydrates. 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 and soft body tissues. Calcium is needed for developing the bones and maintaining their rigidity. Phosphorus plays an important role in energy metabolism of the cells.

Nutrition is the study of how to provide these six nutrients in the right amount for good health. Changing these nutrients into smaller, simpler substances for ready use within the body is the process of digestion. It breaks down:

- carbohydrates into simple sugars (glucose);
- proteins into amino acids and;
- fats into fatty acids and glycerol.

Proteins, carbohydrates, and fats are the only three nutrients that contain heat-producing energy. They are the fuels which the body turns into the heat energy it needs.

Because we need many different nutrients to stay healthy, we have to eat a wide variety of foods in order to get all of them. If we stick to just one or two favourite foods, we'll be short of nutrients we must have to stay well.

Breakfast, lunch and dinner with a nutritious snack is a good prescription for good health. According to statistics 30 to 50 % of all calories eaten each day

are consumed in the form of between-meal snacks. Unfortunately, the foods that we like to eat between-meals are low in nutritional value and too high in calories, saturated fats, salt and refined sugar, e. g., buns, rolls, hamburgers, salted peanuts, crackers or biscuits. These foods are called empty calories or “junk food”. They provide calories that can be turned into energy, but they don’t provide anything else our bodies can use.

Some excellent snacks that should always be available are plain yoghurts, carrots, apples, cheese and natural fruit juice. Eating yoghurt as a snack food is much healthier and more nutritionally healthy than eating “junk” food, which is less nutritious and too high in sugar, calories and additives.

A proper well-balanced diet is the basis of good health. To be healthy we should eat food from each of the following major 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, nuts and eggs;
- **fruit and vegetables** — broccoli, carrots, cabbage, beets, apples, oranges, bananas, etc.

Eating various foods from each of these groups should ensure that our body gets all the necessary vitamins and minerals we need and will help us maintain good health.

Ex. 4. Match the beginnings and endings of the expressions (based on the text “Healthy Nutrition”). 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 be 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 our well-being |

Ex. 5. Say if the statements are true or false. Use the following clichés of politeness:

If you agree	If you are not sure	If you disagree
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 our body with vitamins we should choose a few foods rich in them.
- 3) We 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) Having snacks between meals is unhealthy.
- 9) We should eat a light breakfast, a substantial dinner and a hearty supper.
- 10) We should eat products from four food groups daily.

Ex. 6. Complete the sentences:

- 1) The greatest wealth is health.
- 2) A healthy lifestyle includes ... (+ *Gerund* or a *noun*).
- 3) To be healthy we need
- 4) A good diet consists of
- 5) Nutrients are
- 6) The major groups of nutrients are
- 7) The examples of minerals may be
- 8) Bread, rice, pasta, potatoes, cereals are rich in
- 9) Meat, poultry and fish are high in
- 10) Broccoli, carrots, cabbage, tomatoes, cucumbers are
- 11) Fruits and vegetables are full of
- 12) Junk food
- 13) The food at our University canteen meets
- 14) To get all the nutrients
- 15) You'll run out of nutrients if ... (+ *Present Simple*).
- 16) The key to healthy nutrition is ... because

Ex. 7. Describe the functions of the major groups of nutrients.

PART 2. PROTEINS. CARBOHYDRATES

Ex. 1. Remember the pronunciation and meaning of the following terms:

nitrogen	[ˈnaɪtrədʒən]	азот
alternative	[ɔ:lˈtə:nətɪv]	альтернатива
phosphorus	[ˈfɒsɪ(ə)rəs]	фосфор
to maintain	[meɪnˈteɪn]	поддерживать
amino acid	[əmi:nəʊˈæsɪd]	аминокислота
to consider	[kənˈsɪdə]	считать
sour	[saʊə]	кислый
to consume	[kənˈsjʊ:m]	потреблять
sulfur	[ˈsʌlfə]	серы
synthesize	[ˈsɪnθəsaɪz]	синтезировать
enzyme	[ˈenzaim]	фермент
hemoglobin	[hi:məˈgləʊbɪn]	гемоглобин

Ex. 2. Read the text “Proteins” and characterize their role in the human body.

PROTEINS

Our body is composed chiefly of proteins (18 % to 20 % by weight), and consequently needs to be supplied with them in order to build new cells. Only proteins contain nitrogen, sulphur and phosphorous which are essential to life.

- Protein is needed to build skin, hair and nails, muscles and bone.
- Enzymes and hemoglobin are protein.
- Protein synthesis forms antibodies to fight infection.
- Proteins are needed to keep the blood “neutral” — neither too acid, nor too alkaline; and to regulate the balance of water in the body.

Twenty-two different amino acids are needed to build all the proteins needed by humans. Fourteen of these can be manufactured within the body. The other eight cannot be easily synthesized by the body, and must be supplied regularly and in certain proportions. A food source in which all eight amino acids are present in the right amounts is a complete protein including meat, fish, eggs, milk, nuts, and many other foods. Some foods, like grains and vegetables, are incomplete proteins. When eaten in the right combinations, however, they become complete protein foods — rice with beans, or a cheese sandwich on whole wheat bread, for example.

Ex. 3. Explain the difference between complete and incomplete proteins.

Ex. 4. 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*) us 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. 5. 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. 6. Remember the following words:

lean meat	постное мясо	salmon	[ˈsæməŋ]	лосось
fatty meat	жирное мясо	trout	[traʊt]	форель
veal	телятина	tuna	[ˈtu:nə]	тунец
beef	говядина	herring	[ˈherɪŋ]	сельдь
pork	свинина	mackerel	[ˈmækərəl]	скумбрия
liver	печень	sardines		сардины
poultry (chicken, goose, turkey, etc)		shrimps		креветки

Ex. 7. Read the text about meat products and their alternatives and insert the missing words from the list:

MEAT AND ITS ALTERNATIVES

substance	organs	amount
saturated	muscle	meat alternatives
unsaturated	functions	dry beans
protein	structural materials	pork
cholesterol	nutrients	sea products
tissue	major	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. 8. 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?

CARBOHYDRATES

Ex. 9. Study the vocabulary:

cereal crops	['siəriəl 'krɒps]	зерновые культуры
protein	['prəʊti:n]	белок
dietary	['daɪətəri]	диетический
fiber (= fibre)	['faɪbə]	клетчатка
flour	[flaʊə]	мука
bran	[bræn]	отруби
diabetes	[daɪə'bi:tɪz]	диабет
chronic	['krɒnɪk]	хронический
arrhythmia	[eɪ'riðmiə]	аритмия
process (n)	['prəʊsəs]	процесс
process (v)	['prəʊsəs]	обрабатывать
supply <i>smb with smth</i>	[sə'plai]	обеспечивать
benefit	['benɪfɪt]	польза
beneficial	['benɪ fɪ(ə)l]	= useful, healthy
fatal	['feɪt(ə)l]	= deadly, causing death

Ex. 10. 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 sources 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) _____. 2) *starchy*
3) *diet*
4) *importance*
5) _____. Unrefined (whole) grains can be found in oatmeal, brown rice, buckwheat groats, corn chips and whole-wheat bread. 5) *nutrition*
6) _____ grains contain a lot of vitamins and minerals. Unrefined grains are also very rich in fiber, which helps the 6) *not to refine*
7) _____ system work well, and helps us feel full so that we do not overeat. 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. 11. 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?

Ex. 12. Explain why whole foods are healthier than highly processed food products.

PART 3. FATS. CHOLESTEROL

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 dɪ'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'grɪ:dɪənt]	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	[ˈɒmɪgə]	the Greek letter
a heart attack	[ə 'hɑ:t ə'tæk]	сердечный приступ
a stroke	[ə `strəʊk]	инсульт
cancer	[ˈkænsə]	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	[mɑːdʒəˈriːn]	pastry	[ˈpeɪstrɪ]
sardine	[sɑːˈdiːn]	essential	[ɪˈsenʃl]
caviar	[ˈkæviɑː]	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 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. 4. 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. 5. 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.

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

PART 4. VITAMINS

Ex. 1. Remember the names of the fruits and vegetables:

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

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 cawiflower 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

avitaminosis

compounds

growth

overdose

disorders

insufficiency

provided

bacterial

amounts

source

hypervitaminosis

metabolic

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 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. 4. 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. 5. 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 B₁ (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 B₁ are lean meats particularly pork, fortified bread and cereals, whole grains, dried beans, potatoes, spinach, nuts, peas, yeast.

Vitamin B₂ (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 B₂ 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 B₃ (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 B₃ 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 B₅ (Pantothenic acid) is needed for the metabolism and synthesis of all foods. Vitamin B₅ 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 B₅ are eggs, meat, liver, dried fruit, fish, whole grain cereals.

Vitamin B₆ (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 B₆ deficiency a person may have skin disorders, mouth sores, confusion, depression and anaemia. Vitamin B₆ is obtained in the body with lean meat, eggs, chicken, liver, fish, beans, nuts, whole grains and cereals, bananas and avocados.

Vitamin B₇ (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 B₉ (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 B₁₂ 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 B₁₂ cause tiredness and fatigue, tingling and numbness in the hands and feet, loss of memory, anaemia and confusion. The well-known sources of vitamin B₁₂ 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. 6. 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. 7. 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. 8. Say what vitamin-rich products you will recommend to a patient with:

- a poor eye-sight _____

- high blood pressure _____

- frequent nose bleedings _____

- skin problems _____

- a weak immune system _____

Ex. 9. Put your questions about vitamins to your fellow-students and answer their questions on the text.

Ex. 10. Working in small groups name the main functions of different vitamins.

Ex. 11. Read the text about hypo- and hypervitaminosis. Pay attention to the pronunciation of the words:

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

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 B₁₂ 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 B₁₂ in some cases for years, before developing a deficiency condition. However, vitamin B₃ (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. 12. Match the English-Russian equivalents:

- | | |
|--|----------------------------------|
| 1) разнообразно питаться | a) not to be stored in the human |
| 2) запас различных витаминов
в организме человека | body in significant amounts |
| 3) рахит | b) individual tolerance |
| 4) цинга | c) scurvy |
| 5) не накапливаться в организме
в больших количествах | d) rickets |
| | e) vomiting |
| | f) nausea |

- | | |
|---|---|
| 6) авитаминоз (2) | g) the human body's stores for different vitamins |
| 7) тошнота | h) to reduce the dosage |
| 8) рвота | i) fortification of foods |
| 9) (о симптомах) усиливаться в зависимости от | j) to be more severe with |
| 10) уменьшить дозировку | k) remote likelihood |
| 11) отравление | l) vitamin deficiency disease, avitaminosis |
| 12) небольшая вероятность | m) poisoning |
| 13) индивидуальная переносимость | n) to eat a varied diet |
| 14) витаминные добавки | o) vitamin supplementation |
| 15) витаминизация продуктов | |

Ex. 13. 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. 14. Say if the sentences are true or false:

- Vitamin deficiency diseases can be caused only by a poor diet.
- Humans must consume all the vitamins daily to avoid their deficiency.
- In developed countries vitamin deficiencies are rare due to the fortification of foods.
- 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. 15. Using the expressions from ex. 12 explain why it is necessary to consume vitamins but to control their doses.

Ex. 16. 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 vegetables, pasta, rice, flour _____ dark containers because sun rays destroy vitamin B₂ 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 B₂;
- 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. 17. Say which of these rules you always / usually / generally / rarely / seldom / (almost) never follow.

PART 5. RESEARCH ON NUTRITION

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

iron	[ˈaɪən]	железо
calcium	[ˈkælsiəm]	кальций
zink	[zɪŋk]	цинк
deficiency	[diˈfɪʃnsɪ]	недостаточность
selenium	[siˈliːniəm]	селен
survey	[ˈsɜːveɪ]	исследование
incidence	[ˈɪnsɪdəns]	частотность, число случаев
consequence	[ˈkɒnsɪkwəns]	последствие

b) Pay attention to the meaning of the words:

a serving [əˈsɜːvɪŋ] — порция
to freeze — замораживать
to dry — сушить
to squeeze [təˈskwiːz] — выжимать
to add [təˈæd] — добавлять
to store [təˈstɔː] — накапливать, хранить
to can — консервировать
likelihood [ˈlaɪklihʊd] — вероятность

c) Translate the word combinations:

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

Ex. 2. Read the text about the results of research on selenium and find the facts to prove its relevance.

SELENIUM PROTECTS US AGAINST UNHEALTHY LIFESTYLE

An abundance of selenium in the body allows us to resist 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 had a 70 per cent higher risk of suffering from a coronary disease than those with adequate levels of selenium.

It is highly probable that selenium plays an especially important role as a preventive 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.

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 diseases.

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.

Ex. 3. 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. 4. Match the beginnings of the sentences in column A with the endings in column B.

Column A

1. Selenium deficiency increases
2. Low levels of selenium are associated
3. Two major European studies
4. Holland's cancer foundation carried out a population survey

Column B

- a) involving 120.000 Dutchmen
- b) prevent harmful effects of tobacco, alcohol and a poor diet
- c) to provide the necessary protection
- 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 diet 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. 5. Answer the questions based on the text:

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. 6. Summarize the findings about the impact of selenium on the human body.

Ex. 7. Read the text about fiber in pairs. 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 18 g 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. 8. Speak about the importance of fiber in our diet.

Ex. 9. 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. 10. 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.

Ex. 11. Read the text “A great way to live longer” and describe the findings of the studies on heart disease and cancer.

A GREAT WAY TO LIVE LONGER

Two major studies, one on heart disease and the other on cancer, are giving researchers a new look at the connection between diet and disease. They offer the hope of saving hundreds of thousands of lives a year by improving the way we eat.

The study on heart disease was started ten years ago by the World Health Organization (WHO). Using standardized data-collection techniques, WHO's correspondents gathered statistics on more than ten million men and women in more than 39 population centres, ranging from Siberia to California, Australia to Israel. The study revealed some astonishing facts.

It showed that in Finland, for example, men die of coronary disease 11 times more often than they do in Japan, while in Glasgow women die of heart disease 12 times more often than those in north-eastern Spain or southern France.

The findings of the study revealed a clear pattern: in Europe, the further north you live, the more likely you are to die from a heart attack. Two cities typical of this north-south picture are Belfast and Toulouse, in south-western France. In the most recent period studied, the heart-disease death rate for men aged 45 to 54 is 237 per 100 000 population in Belfast, but only 56 in Toulouse. For the age group 55 to 64, the contrast is even more striking: 761 for Belfast, 174 for Toulouse — a difference of 4.3 to 1.

The study on cancer was organized in seven European countries including Britain by the International Agency for Research on Cancer. It shows a similar outcome: for most forms of cancer, the north is dangerous and the south relatively benign. Luxembourg and Belgium lead the mortality figures for men (Denmark and the UK for women), while Greece, Portugal and Spain are at the bottom.

Why does residence in the north, make death from cardiovascular disease or cancer more likely than in the south? The question is puzzling because the studies found no significant difference in smoking, high-blood pressure or cholesterol — the three classic indicators of heart trouble — to explain the regional differences. The investigators think that the likely answer is diet.

Clearly, southern Europeans know something about eating that their northern neighbours do not. The most striking information is in the data from France, the country with the western world's highest life expectancy.

The French outlive Americans, for example, by more than four years, suffer less than half as much from coronary heart disease and yet smoke more, drink and have high blood pressure and cholesterol counts. Those facts are the basis of "the French paradox".

The studies revealed the differences between France and other industrialized nations: Scotland, Finland, the United States and Australia were at the top of the list for premature deaths from heart disease, while France was nearly at the bottom, compared only with rice-and-fish-eating Japan.

Dr. Serge Renaud, epidemiologist and director of nutritional studies at France's National Institute of Health and Medical Research, had been studying the relation between nourishment and heart disease for more than 30 years. His study of some 600 cardiac patients, proved the influence of diet on health.

Ex. 12. Answer the following questions, choose the right variant.

1. What is the best description of the French paradox?
 - A. The French live longer than Americans.
 - B. The French are thought to have an unhealthy lifestyle, yet have a long life expectancy.
 - C. Although the French are heavy smokers, they have low rates of heart disease.
2. What statement best describes the author's attitude to the theory that there is a connection between diet and disease?
 - A. He is not sure.
 - B. He supports it.
 - C. He rejects the theory.
3. What is the author's purpose in describing Japan as 'rice-and-fish-eating'?
 - A. To show that Japan was part of the studies.
 - B. To show that Japan has a healthy diet.
 - C. To show that Japan has an unusual diet.

4. Where do men die of coronary disease more often?

A. Scotland.

B. Finland.

C. Japan

5. What does the author say about smoking, blood pressure and cholesterol in different countries?

A. There are striking differences by these parameters between the north and the south of Europe.

B. They clearly explain regional differences in premature deaths from heart disease.

C. There are no significant differences by these indicators of heart trouble between European countries.

Ex. 13. Read the text about practical advice on maintaining a healthy diet and say what products we should consume in the following proportions every day. Write the names of the food groups against the appropriate numbers (choose from the box).

PRACTICAL ADVICE ON MAINTAINING A HEALTHY DIET

The World Health Organization (WHO) has released updated guidelines on healthy diets, with particular attention to carbohydrates, total fat, and specific types of fat such as saturated and trans fats.

Carbohydrate intake should comprise 40–70 % of total calorie intake and come mainly from minimally processed whole grains, vegetables, fruits, and legumes, with research finding that these foods are associated with a reduced risk of deaths from any cause and diet-related non-communicable diseases (e.g., diabetes, cardiovascular disease, cancer).

Energy intake (calories) should be in balance with energy expenditure. To avoid unhealthy weight gain, total fat should not exceed 30 % of total energy intake. Unsaturated fats (found in fish, avocado and nuts, and in sunflower and olive oils) are more preferable to saturated fats (found in fatty meat, butter, palm oil, cream, cheese and lard) and trans-fats of all kinds. Intake of saturated fats should be less than 10 % of total energy intake, and intake of trans-fats less than 1 % of total energy intake.

Limiting intake of free sugar to less than 10 % of total energy intake which is equivalent to 50 g per day is part of a healthy diet. Free sugars are all sugars added to foods or drinks by the manufacturer, cook or consumer, as well as sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.

Keeping salt intake to less than 5 g per day (equivalent to sodium intake of less than 2 g per day) helps to prevent hypertension, and reduces the risk of heart disease and stroke in the adult population.

<i>Salt</i>	<i>Free sugar</i>	<i>Total fat</i>	<i>Saturated fat</i>
	<i>Unsaturated fat</i>	<i>Carbohydrates</i>	

50 g _____

1 % _____

30 % _____

10 % _____

50 % _____

5 g _____

Ex. 14. You are a dietician. Give advice on proper nutrition:

a) by matching the products with their action:

- | | |
|--|---|
| <p>1. You should eat some oatmeal for breakfast.</p> <p>2. Eat a few nuts every day.</p> <p>3. Add olive oil to your salads.</p> <p>4. Eat one or two boiled eggs in the morning.</p> <p>5. Choose fish instead of red meat.</p> <p>6. You can eat a bean rich dish everyday instead of meat.</p> <p>7. You should eat lots of green vegetables.</p> <p>8. Each avocado includes 11–17 grams of fiber.</p> <p>9. Choose low-fat milk products.</p> <p>10. You can have green tea instead of black tea or coffee.</p> | <p>a) It is full of essential fatty acids (omega-3s).</p> <p>b) Using it helps to control cholesterol levels.</p> <p>c) They contain lots of calcium and protein.</p> <p>d) It includes lots of fiber, which stays in your stomach and makes your digestion longer.</p> <p>e) They have low calorie contents and are a good source of vitamins, minerals and fiber.</p> <p>f) They have low calories and include protein and fiber. So you will replace saturated fat to fiber.</p> <p>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.</p> <p>h) It is rich in antioxidants and helps you burn more calories.</p> <p>i) They are a perfect source of vitamin B₁₂ and protein.</p> <p>j) Besides they are full of fiber, they contain lots of monounsaturated fats which are heart-healthy.</p> |
|--|---|

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, rich, 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:

- 1) _____
- 2) _____

Ex. 15. Make a short report on the fundamentals of healthy nutrition.

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ОСНОВНЫЕ ПРИНЦИПЫ ЗДОРОВОГО ПИТАНИЯ

BASIC PRINCIPLES OF HEALTHY NUTRITION

Практикум

На английском языке

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