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**NUTRITION – PATH TO HEALTH AND LONGEVITY**

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Everybody knows that food is needed for the normal vital functions of organism. During all life metabolism and energy is continuously accomplished in the organism of man. The source of necessary to the organism building materials and energy are nutritive acting from an environment mainly with food. If food does not enter organism, a man feels hunger. But hunger, unfortunately, will not prompt, what nutritive and in what amount need to the man. We often use in food that deliciously, that can be quickly prepared, and we do not begin to think about an utility and high quality of the used foods.

Doctors assert that a valuable rational feed is an important condition of maintenance of health and high capacity of adults, and for children yet and necessary condition of height and development. For a normal height, development and maintenance of vital functions an organism need squirrel, fats, carbohydrates, vitamins and mineral salts in a necessary to him amount.

An inefficient feed is one of main reasons of origin of cardiovascular diseases, diseases of organs of digestion, illnesses related to the metabolic disturbance.

The regular overeating, consumption of surplus amount of carbohydrates and fats is reason of development of such metabolic diseases, as obesity and diabetes mellitus. They cause a defeat cardiovascular, respiratory, digestive and other systems, sharply ability to work and stability to the diseases, abbreviating life-span lower on the average on 8-10.

A rational feed is a major necessary condition of prophylaxis of not only metabolic diseases but also many other. A food factor plays an important role not only a prophylaxis but also in treatment of many diseases. By the special character the organized feed, so-called curative feed, is an obligatory condition of treatment of many diseases, including exchange and gastroenteric.

Medicinal substances of synthetic origin unlike food substances are for an organism foreign. Many of them can cause by-reactions, for example, allergy, therefore at treatment of patients it is necessary to give preference to the food factor. In foods many bioactive substances reveal in equal, and sometimes and in higher concentrations, than in the applied medicinal facilities. That is why from the most ancient times many foods, first of all vegetables, fruit, seed, greenery, apply at treatment of different illnesses.

Many foodstuffs render bactericidal actions, repressing a height and development of different microorganisms. So, apple juice detains development of staphylococcus, juice of pomegranate represses the height of salmonellas, juice of cranberry is active in regard to different intestinal, putrid and other microorganisms. All are known antimicrobial properties of bow, garlic and other foods. Unfortunately, all this rich curative arsenal is not often used in practice. A rational feed envisages a necessity at drafting of day's ration to take into account, from one side, necessity of organism in basic nutritive and energy, from other - maintenance of these substances and their power value. It is necessary strictly to observe the sanitary-hygienic rules of preparation of food. Carefully to wash, expose to heat treatment foodstuffs. All of it is done in order that in an organism man biological pollutants - morbific and parasitic organisms did not get. But a new danger - chemical contamination of foodstuffs appeared now. A new concept appeared - ecologically clean foods. Obviously, each of us was to buy large, beautiful vegetables and fruit in shops, but, unfortunately, in most cases, trying them, we found out that they are watery and does not answer our requirements in relation to taste. Such situation takes place, if agricultural cultures are grown with the use of plenty of fertilizers and pesticide. Such agricultural produce is able to have not only bad taste internals but also to be dangerous for a health. Nitrogen is component part vitally important for plants, and also for the animal organisms of connections, for example proteins. In plants nitrogen acts from soil, and then through food and forage cultures gets in the organisms of animals and man. Now agricultural cultures how hardly not fully get mineral nitrogen from chemical fertilizers, because some organic fertilizers are not enough for the soils impoverished by nitrogen. However unlike organic fertilizers in chemical fertilizers there is not a free selection in the environmental conditions of nutritive. So, does not turn out " harmonic" feed of agricultural cultures, satisfying requirement of their height. As a result there are a surplus nitric feed of plants and hereupon accumulation in him nitrates.

Surplus of nitric fertilizers conduces to the decline of quality of vegetable products, worsening of her taste properties, to the decline of endurance of plants to illnesses and wreckers, that, in turn, forces farmer to increase application of pesticide . They also accumulate in plants. Enhanceable maintenance of nitrates results in formation of nitrites insalubrious man. The use of such products can cause the serious poisoning and even death for a man. Especially sharply the negative action of fertilizers and pesticide shows up at growing of vegetables in the closed soil. It takes place because in hothouses harmful substances can not without difficulty evaporate and speed away blasts. After evaporation they settle on plants.

Plants are able to accumulate in itself practically all harmful substances. That is why the agricultural produce grown near-by industrial enterprises and large motorways is especially dangerous.

**Bases of rational feed**

Meals - a set of processes including the uptake, digestion, absorption and assimilation of nutrients to them, that is an integral part of metabolism. Meals satisfies one of major physiological necessities of human organism, providing his forming, functioning, stability to unfavorable influences of environment.

A rational feed - it, foremost, the correctly organized and timely providing with of organism the well prepared nourishing and delicious food containing product, surplus of him will not bring good not only, but can cause serious harm to the health. A rational feed is the inalienable component of healthy way of life. Meals must answer certain requirements and be valuable, containing necessary irreplaceable components, balanced, various with the wide set of foods, of high quality, attractive and well mastered.

The power value of feed is expressed, as a rule, kilo-calories (kkal) or in kilojoules (kJ), mass of separate foods - in grams. The day's amount of consumable foods and their power value are usually determined.

The human need for energy it receives from food depends on the individual (sex, age, weight, height, exchange processes) and the nature of the employment, living conditions, recreation and the environment (especially on the climate).

**Food substances.**

Such compounds or separate elements that need to the organism for normal motion of his vitally important processes name food substances. By general property of proteins, fats and carbohydrates there is their ability to satisfy power necessities. Thus they differ in comparatively a high level the energies distinguished at affecting them digestive enzymes.

In composition foodstuffs count about 70 types of different substances that must enter organism in the balanced amount. From them most essential are squirrel fats and carbohydrates. Main distinctive properties of these substances it is been their plastic and power potential. A basic plastic substance (providing a height and updating of own tissues of organism) are squirrel. By virtue of it they are confessed

by the main food substance of ration of feed of man. Fats participate in plastic processes in a considerably less degree. Carbohydrates to them are not implicated.

All three types of substances distinguish energy necessary for maintenance of processes of vital functions and providing of implementation of any work, but a basic power substance are carbohydrates. Fats in that behalf more often act part reserve substance. The exchange of carbohydrates is closely related to the exchange of fats. If energyspending is high and not compensated by the carbohydrates of food, in an organism formation of sugar begins from fat. An at the same time limit ability of carbohydrates to provide oneself in an organism entails the relatively easy converting of their surplus amount into fat that accumulates in fatty depots. In modern terms, energyspending of considerable part of population went down in connection with general reduction of volume of muscular work, accordingly a middle requirement went down in carbohydrates. Squirrel are utilized in an organism with freeing of energy only at insufficient maintenance in the ration of carbohydrates and fats and at hard physical work.

The basic receipt of proteins is provided by meat of animals, fish, cheeses, curd, milk, eggs, by foods of processing of grain and leguminous. The sources of food fats are fat of for slaughter animals, dairy butter, fat of milk, fat of fish and marine animals, fat of oil plants. The carbohydrate component of ration is formed by grain-growing and potato starch and sugar-beet or reed sugar. A monotonous feed, exception on the protracted term of separate groups of foods, violate balanced of maintenance of food substances, that has negative for an organism consequences. A requirement in food substances is different for the different categories of population, depends on character of labour, age and another factors, including climatic. A value of proteins is in a feed.

Squirrels play the feed of man an extraordinarily important role, because they are main component part of mews of all organs and tissues of organism. The basic setting of proteins of food is this construction of new mews and tissues, providing development of young growing organisms. In mature age, when the processes of height already are fully completed, there is a requirement in the regeneration of threadbare, obsolete mews. What higher muscular loading, the more requirement in a regeneration and accordingly in a squirrel. Squirrel are the difficult nitrogenated biopolimers. Squirrel in the organism of man execute a few important functions - plastic, catalytic, hormonal, function of specificity and transport. The major function of food proteins is providing of organism plastic material. The organism of man is practically deprived backlogs of albumen. By an only source them there are squirrel of food, because of what they behave to the irreplaceable components of ration.

**The value of fat in the diet.**

Edible fats are not only a source of energy but the material supply for the biosynthesis of lipid structures, particularly membranes of cells in the body. Fats have the highest energy value. When burned fat 1d stands 37.7 kJ (9 kcal) of heat (for combustion of 1 g of protein or carbohydrate - only 16.75 kJ (4 kcal)). Distinguish between animal and vegetable fats. They have different physical properties and composition. Animal fats - solids. They contain large amounts of saturated fatty acids having a high melting point. Vegetable oils, in contrast to animals contain a substantial amount of polyunsaturated fatty acids, belonging to the indispensable nutritional factors. Fat products, in addition to fat consisting of glycerol and fatty acids, sterols contain phospholipids and lipid-soluble vitamins that have pronounced physiological effects. The basic component of fats are fat acids. In environmental conditions found out over 40 fat acids.

The saturated fat acids (palmitic, stearin to and other) are used by an organism mainly as power material. The maximal amount of the saturated fat acids contain adipose. Surplus of the saturated fat acids in a feed often results in violation of exchange of fats, increase of maintenance of cholesterol in blood.

If during great while sharply to decrease an amount in a feed fat or limited to only dairy butter, an organism loses ability it is correct to use surplus of him and becomes less proof to development of atherosclerotic process. It is accepted, that 1/3 day's consumptions of fats must make vegetable fats, and 2/3 are animals. Vegetable oils it is necessary to use mainly with vinaigrettes, lettuces, different kind by appetizers, at preparation of sauces etc. In this kind jaboties are better mastered. However for the persons of superannuated, and also at enhanceable table of contents of cholesterol in the serum of blood correlation vegetable and adiposes it must be 1: 1.

**A value of carbohydrates is in a feed.**

Carbohydrates are basic part of food ration. In the organism of them enters two times more than proteins and fats. Carbohydrates are polysaccharidess: starch, hepatin and sugar. Monosugar is glucose, fructose, lactose, saccharose and disaccharides. Except sugars and starch the not mastered cellulose and pectin behave to the carbohydrates. At the ordinary mixed feed due to carbohydrates provided near a 60 %% day's energyvalue, while due to proteins and fats together taken - only 40 %%. Carbohydrates in an organism are used mainly as an energy source for muscular work. What more intensive physical activity, the anymore required carbohydrates. At the not mobile way of life, opposite, a requirement diminishes in carbohydrates. Carbohydrates are contained in different food foods: groats leguminous, macaronis, bread, vegetables et cetera. During life a man consumes about 14 tons of carbohydrates on the average, and that number more than 2,5 tons of simple carbohydrates.

**A value of mineral substances and vitamins is in the feed of man.**

Mineral substances and vitamins play an essential and at the same time original role the vital functions of organism. Foremost, they are not used as power materials, that is a specific feature for proteins, fats and carbohydrates. Other distinguishing feature of these food substances is a relatively very insignificant quantitative requirement in them organism. To suffice it to say that day's consumption of all mineral elements and their connections does not exceed a 20-25 g, and a corresponding number for vitamins is expressed even in milligrams.

**A value of mineral substances is in a feed**

In a rational feed mineral substances have a not less value not at all, than squirrel, fats, carbohydrates and vitamins. The same as and at the lack of basic food substances or vitamins, at the deficit of mineral substances in the organism of man there are specific violations resulting in characteristic diseases.

Mineral substances make considerable part of human body. In bones they are presented as crystals, in soft tissues - as veritable or colloid solution in connection mainly with squirrel.

A natrium is widely presented in all organs, tissues and biological liquids of organism of man. He plays an important role the processes of внутриклеточного and intertissue exchange. Salts of natrium are mainly in внеклеточных liquids - lymph and serum of blood. An important place belongs to connections of natrium in formation of the buffer system of blood providing acid-base equilibrium. Potassium, as well as natrium, matters very much in formation of the buffer systems, preventing the changes of reaction of environment and providing their constancy. At the mixed food ration a requirement in potassium is satisfied fully, however there are substantial seasonal vibrations: not high consumption in spring, maximal - in autumn.

A calcium is needed for maintenance of neuromuscular excitability, he participates in so important process, as a hemopexis, has influence on permeability of cellular shells. A requirement in the calcium of adults makes 800 milligrams per day.

Phosphorus. Phosphoric connections play an especially important role activity of cerebrum, skeletal and cardiac muscles, sweat-glands.

Considerable maintenance of phosphorus dairies differ in, in particular cheeses. Much phosphorus is in leguminous, in bread and groats, however comprehensibility of phosphorus of grain-growing foods is subzero in connection with large specific gravity of phytic connections. The important source of phosphorus are meat and fish.

**A value of vitamins is in a feed**

Except proteins, fats and carbohydrates food must contain organic compounds also, getting the name of vitamins. They participate in all biochemical and physiological processes as major regulators of vital functions. In the organism of man vitamins do not appear insufficient amounts or appear in insufficient amounts. Vitamins enter organism with food and required in insignificant amounts making milligrams. The basic sources of vitamins are plants in that they are contained, or substances that already in an organism grow into vitamins. There are vitamins and in food foods of animal origin, for example, in a liver, cod-liver oil. Vitamins render strong and specific influence on a height, development, metabolism, because are enzymes or enter in the complement of enzymes. In default of in food of one or another vitamin there are the diseases, named avitaminosises that are investigation of metabolic disturbance. Vitamins behave to the irreplaceable factors of feed, however are an energy source.

An enhanceable requirement in vitamins arises up at the special physiological states of organism (intensive height, pregnancy, lactation), certain climatic terms, intensive physical or neuropsychic activity, stress states, at infectious diseases, diseases of internals, ductless enhanceable to the egestion of vitamins glands.

**Basic vitamins.**

It is known that for normal life of man about 20 vitamins are needed. Some are below given of them. The vitamin of C in fars is contained in the garden-stuffs of brier, blackberry, cabbage, tomatoes, carrot, potato and other vegetables and fruit other vegetables and fruit. At дли¬тельном absence scurvy develops in food of vitamin of С. At scurvy people weaken, кровоточат gums inflame for them, teeth fall out, joints swell. The vitamin of С stimulates the hormonal adjusting, processes of development of organism, resistibility to the diseases.

The vitamin of А. on a chemical structure is near to the substance to the carotin contained in plants (carrot, spinach, tomatoes, apricots). Converting of carotin into the vitamin of А takes place in the wall of bowel and liver. The vitamin of А enters in the complement of the visual pigment contained in the photosensitive mews of retina. A carotin and vitamin of А in great numbers are contained and in animal food - dairy butter, vitellus, caviar, cod-liver oil. In default of vitamin of А the cornea of eye, skin, respiratory tracts, is struck in food. The early display of lack of this vitamin in an organism is "chicken blindness", inability to see at a low-light. Therefore to the people work of that requires sight tensely, it is necessary to use the vitamin of А. additionally

The vitamins of group В. This group of vitamins includes a few vitamins - В1, В2, В6, В11, В12 and some other. Vitamins of group In fars contained in brewer's yeasts, shells of seed of rust, rice, leguminous, and from animal foods - in buds, liver, vitellus. Specific function of vitamins of group In an organism consists of that enzymes carrying out many major reactions of metabolism appear from them.

First from this group was found out the vitamin of В1. In default of the defeats of the nervous system - disorders of motions, paralyses resulting in death develop in food of this vitamin. But, if to give food in that there is a vitamin of В1 on recovery steps a patient. Taking into account that the vitamin of В1 is not put aside in an organism for the future use, his receipt with food must be regular and even.

The vitamin of В6 participates in transformations of amino acids and in the exchange of carbohydrates.

The vitamin of В12 regulates a hematogenesis function, height of nervous tissue.

Vitamin of D (antirachitic vitamin). In fars contained in cod-liver oil. He can appear in the organism of man under

by influence of ultraviolet rays. The vitamin of D is antirachitic, participates in the exchange of calcium and phosphorus, appears in a skin under influence of ultraviolet rays.

The disease named a rachitis causes absence of vitamin of D for children. Rachitic bones children withhold a calcium not enough and phosphorus. It results in curvature of bones of extremities, to appearance on ribs well noticeable bulges, deformation of thorax. Such children are receptive to the different diseases. The best means of warning and treatment of rachitis is the use of food foods, containing the vitamin of D, and also stay of children on a sun or their artificial ultraviolet irradiation.

Thus, our organism, except nutritives, necessarily must get the not walked around vitamins with food. It provides, special in child's and youth age, normal height, maintenance of capacity and, stability to the diseases. There are metabolic (hypervitaminosis) disturbances at the surplus consumption of some vitamins (for example, And and В).

**Treatment of foods is in a rational feed.**

In order that food was well mastered, she must be properly prepared to the action of digestive juices. One of such preparatory forms is mastication. The food carefully chewed and well moistened by saliva in a stomach and bowels is considerably completer exposed to the action of digestive enzymes.

About 80%% food foods are used after heat treatment, that assists their softening influence and increase of comprehensibility. In addition, temperature treatment results in death of harmful microorganisms and destruction of toxins, that provides safety of foods, first of all animal origin and root crops. The row of toxic substances collapses at thermal treatment, for example inhibitors of digestive enzymes. Along with positive influence thermal treatment renders the negative affecting food foods. At thermal treatment vitamins and some food ingredients (squirrel, fats, mineral substances) collapse and harmful substances can appear.

The special influence on the biological value of foods and raw material is rendered by thermal culinary treatment. Distinguish a few methods of thermal treatment of foods : cooking in water and on a pair et al. At cooking of vegetable foods, besides thermal disintegration of pectin, there is a satiation of cages water is introduction of water in squirrel, pectins, starch. Cooking of vegetable foods on a pair also assists the decline of losses of food substances as compared to cooking in water, because extracting takes place only from superficial layers. Cooking on a pair abbreviates the losses of vitamins almost in two times. At frying of vegetable foods there is mainly disintegration of pectins with formation of soluble pectins and water. At cooking of foods of animal origin of loss of food substances take place due to melting of fat. The superfluous extension of thermal treatment of animal foods can cause the noticeable worsening of nourishing value of the proteins contained in them.

At the same time in food it is needed necessarily to use raw vegetables and fruit. Their presence, firstly, strengthens motion of wall of stomach and bowel, assisting the same to more careful interfusion of food and strengthening of suction of nutritives. Secondly, in raw vegetables and fruit there is plenty of vitamins necessary for providing of vital functions of organism.

**Value of rational feed.**

Arational feed is the inalienable component of healthy way of life.

A correct feed presents not only biological but also socio-economic and even political problem. Nevertheless, there are many factors depending not only on the level of development of society.

A feed is habit that can manage. Factors are influencing on forming habits.

1. Psychological - personal predilections for one or another food, domestic food traditions, vital philosophy (attitude toward vegetarianism).

2. Geographical and ecological is a production of foodstuffs and climate, traditional agricultural cultures.

3. Physiological is a height, development of organism, degree of motive activity, necessity of keeping diet on the state a health.

Thus, numerous factors influence on food habits of man, qualificatory character of his feed. Therefore it is very important to pay attention to forming and education of rational food habits from early age, that in mature age of the problems with a health, related to the feed, for a man did not arise up already.

**Principles of construction of food ration and diet.**

Leading principle of construction of optimal ration is his balanced, envisaging the most favorable between’s by food and bioactive substances, and also their component parts. At drafting of ration of feed it is necessary also to decide a question about that, food foods of animal and vegetable origin must enter in what correlations there. A main question touches the volume of food, on that the arising up after-meal sense of satiation, related to filling of stomach, tension of his walls and irritation of corresponding nervous completions, depends mainly. Permanent composition of feed in a great deal determines by itself the type of digestion, at sharp violation of that complications are possible. This circumstance it is especially necessary to take into account at setting of diet a patient suffering the diseases of gastrointestinal tract. The so-called taste substances, bitter tastes, spiciness’s and spices, have the known value in a feed. They, nevertheless, play a substantial enough role in the process of digestion. An appetite gets better under influence of taste substances, the selection of digestive juices and motive function of bowels increase, and also mastering of food rises. Exception of these substances from the diet of patient it is necessary to conduct only at presence of direct medical contra-indications.

**Diet**

A large value has distribution of food ration during a day. Thus a failure to observe of diet negatively affects with standing of all organism, rather than just on activity of gastrointestinal highway. Moreover, the rare eating can have influence on the level of cholesterol in blood and to assist development of atherosclerosis. At eating of too plenty of food for one reception there is a repletion of stomach. It hampers and violates the process of digestion, because the distinguished digestive juices can not slit all digestive substances being in food. For the normal functioning of the digestive system food must enter her small portions at stated intervals. The most pleasant terms for digestion are created for people that feed 4 times per days. Less rational is three meal per day, at that between eating there can be the sharp esurience, accompanied by the headache and feeling of tiredness, related to hypoglycemia. Time of breakfast, dinner and supper the brow of century depends on habits, from character and terms of his labour. However in all cases, eating is necessary in a the same clock through the approximately equal intervals of times. Digestive juices begin, thus, to become separated from yet to the meal, and acting food is mastered considerably rather and better, than at those, whoever adheres to the diet and eats at different times. The rhythm of work of gastrointestinal tract is violated otherwise, that can entail serious disorder of his activity in future.

A meal is no less harmful in snatches, when the irritation of taste nerves the very small amounts of food causes braking of food center and loss of appetite related to it. Distribution of day's ration is produced it is differentiated depending on the set daily, features of labour activity, specific of climatic terms routine. Thus breakfast must provide an organism the supply of substances, necessary for forthcoming labour activity. Dinner can contain to a 50%% general maintenance of calories, and him it is expedient to accept upon termination of working day, because intensive labour activity some brakes a secretion and slows overcooking of food. A supper must be comparatively small high-calorie and easy, thus to have a supper. Follows not later, than after hour-two to passing to the dream. Only at this condition the secretory vehicle of digestive tract can get necessary to him 8-10-sentinel rest. If this interval of time will be less than, then a man will lie down to sleep with a gap-filling stomach, that will entail a restless dream, and an organism will not get necessary rest. The known rules it is necessary to adhere to at distribution qualitatively of the heterogeneous foods intended for the different eating. So, for example, food dishes most rich in squirrel, it is necessary to accept a man in the period of the most active activity, in breakfast and dinner. It contingently a that circumstance, that they accelerate metabolism, excite the nervous system and promote general vital tone of organism. Therefore a reception of albuminous food shortly before a dream is inefficient, because in a night clock she will be worse overcooked and a dream will be uneasy. Large attention must be spared to the that situation eating is accomplished in that. This is important for maintenance for the man of maximal sense of appetite, playing so large role for crossing and mastering of food. Such are substantive provisions, touching a diet. Naturally, that these positions can not take into account all features of food ration of the certain collectives and persons, related to age, state of health, labour activity. All these questions a doctor must settle directly in place, having regard to the concrete terms of labour and way of life of people.

**Appetite.**

An appetite is name feeling of requirement in certain food. It is noticed a long ago, that, when we eat with pleasure, many juices and eaten food are distinguished mastered well. A good appetite is caused by the variety of food, seasonings, lettuces. The last is important yet because provides a receipt the organism of necessary to him substances, especially vitamins. A large role development of appetite is played by high quality of foods, their culinary treatment, taste of the prepared dishes, registration, serving of table.

Yet to beginning of meal all of it causes the conditionally-reflex separation of digestive juices, assisting forthcoming digestion. A loss of appetite is an ordinary sign of many diseases. The beyond measure enhanceable is observed at an infection parasitic worms and at the diseases related to the metabolic disturbance.

**Food and illnesses**

Harm that inflicts the improper feeding to the organism is well-known. It is reason of great number of diseases or, at least, assists their development. Feed, body weight and hormonal status of organism. Now there are many amateurs abundantly to eat up. And, as supervisions, obesity caused by overeating, show, it is beyond measure widespread. Nowise it is not necessary to fall and in other extreme: to starve, systematic underfed. Unfavorably for an organism malnutrition, that arises up not only for lack of food but also under influence of propaganda "of hungry" diets. For many people even sickly fear develops to "become thick". In these cases avoid high-calorie food, artificially cause vomiting, and apply purgative and diuretic facilities right after a meal. Similar measures not only reduce body weight but also can result in avitaminosises and another violation in an organism, in particular in a sexual sphere. Abuse of purgative and diuretic preparations causes changes in a water-salt exchange. A pallor, sweating, tremor of fingers of hands, tension of muscles, behave to the signs of these violations. Convulsive attacks reminding epileptic look after in especially bad cases.

**Food allergy**

There can be substances in food foods, an enhance able sensitiveness to that causes an allergy. It is set that for the origin of allergic reaction the substances named antibodies must appear in an organism. Presently under an allergy understand the state of organism, arising up as a result of co-operation of antibodies and corresponding antigens. Under act of complex there is an antigen - neurohumors are distinguished is histamine, serotonin et al, directly stipulating: itch, spasm of blood vessels and bronchial tubes, hives and another displays of allergic reaction. In principle there can an antigen be how hardly not any substance of external and internal environment, mostly aluminous or polysaccharide nature.

To the food allergy not only the diseases of gastrointestinal tract but also bronchial asthma (especially for children), rhinitis, conjunctivitis, steatites, eczema, arthritis, headache of and other are related At a food allergy after penetration of allergen (antigen) in a stomach is an intestinal highway usually already in a few minutes, burning or itch appears in to the mouth, to the gullet, vomiting or diarrhea joins soon, a skin blushes and itches, there are hives. In bad cases for a patient an arteriotony falls sharply, he loses consciousness. Allergic reactions on food can be lines is vomiting, diarrhea. Secondary is blood loss, deficit of iron and albumen. Remote is an allergic rheum, serosal otitis, bronchial asthma, hives, eczema, swelling Kvitka. Any product can act part allergen. But there are foods that cause allergic reactions more often than other : cow milk, collapse, eggs of chickens, geese, shutes. Sometimes an allergic reaction is caused by the use of cereals : rust, wheat, oat, barley, corn, rice, millet. Among vegetables, fruit and berries more often an allergy a strawberry and citrus can cause. Allergen properties are possessed also by nuts. Frequent reason of allergy is a chocolate, coffee, pepper, mustard, mint.

**Migraine and feed.**

At a hit in an organism 100 mgs and more than tyramine sensible to this substance people have a headache, hives; 40 mgs of tyramine suffice at chronic hives, to cause intensifying of headache. A headache can take place and at a hit in the organism of phenylethylamine (that is contained in a chocolate, cheese, wines) and nitrate of natrium at a to them hypersensitization. Nitrate of natrium is good antimicrobialп means, he is used, for example, at making of ham and other foods (exactly nitrate of natrium gives a ham so appetizing pink color). Presently intercommunication of migraine with food of doubts for specialists does not cause, foods, more often than other resulting in attacks migraines, are certain for sensible to them people.

**Food and infectious diseases.**

To food distribution of some infectious diseases of gastrointestinal tract is related. Reasons of origin and distribution of epidemics were one of secrets of nature, since olden times worrying humanity. Mass distribution of illnesses caused not only mystic fear before them but also aspiration to explain their reasons. Presently there are not doubts in that reason of infectious diseases are certain microscopic causative agents above-ground in surrounding a man to the environment and even in him, that can be passed and through food. Many food foods serve as a wonderful nourishing environment for microorganisms, therefore they can act part mediators in the transmission of infection. Through milk the causative agents of tuberculosis, brucellosis , dysentery, cholera and some other infectious diseases are passed. Causative agents can get in milk on all stages: from a cow, consumptive, by mastitis, brucellosis udder. From people, patient with typhoid, dysentery of and other, working on stock-raising farms, engaging in transporting of milk, his sale, processing; from consumers not observing sanitary-hygienic rules. Milk and dairies have limit terms of realization and not subject the protracted storage even in a refrigerator. Not by chance the date of their making is put. Milk acts a consumer after thermal treatment; dairies: creams, sour cream, kefir et al - made from the pasteurized milk.

A certain epidemiology danger is presented by eggs. It would seem, nature created the quite good protecting from a hit in them microbes: shell, shells, etc. And however ubiquitous microbes penetrate through all these barriers. And that to talk about the surface of egg, that practically is always infected proteus, by salmonellas and other pathogenic bacteria. An especially large danger is presented by duck eggs. Therefore free sale they do not enter, and used in bakery and pastry industry, where in the process of making of foods exposed to heat treatment. Through meat and meat products the causative agents of infections, tuberculosis, helminthisms can be passed. All meat-packing plants, enterprises of public food consumption, trade, child's establishments are under control the sanitary-epidemiological stations, carrying out a preventive and current sanitary supervision after processing, transporting, storage and sale of food foods, and also after preparation from them different dishes. A considerable danger fungi of home-made, through that sausage-poisoning is passed, can present is a disease heavy, sometimes with a mortal end. For his warning fungi it is necessary carefully to wash, releasing from soil, in that there are spores of causative agents, maintaining boiling. Getting in an organism, spores grow into a vegetative form, defiant a disease. It is the last years set that through food not only bacterial and intestinal worm diseases but also some viral infections can be passed. Although viruses propagate only in living mews, "nevertheless, - specified in one of documents of Worldwide organization of health protection, - possibility of viral semination of food matters very much, because a man enters into a close contact with foodstuffs during their treatment and distribution. Many kinds the foods, exposed to the semination, provide favourable terms for the survival of viruses". To the viral diseases transmissible through food, one of forms of infectious hepatitis belongs, tick encephalitis, poliomyelitis, hemorragic fevers.

**Fats and feed**

The special discussion is deserved by the problem of influence of feed on the flow of chronic diseases. For example, at hypertensive illness and diseases of buds the state of patient can become worse after the use of salt food. A large fat meal results in intensifying of chronic cholecystitis and other it is Necessary to underline that harmful food is not, she such becomes only at certain terms. At surplus body weight, chronic cholecystitis and in some other cases unfavorable influence is rendered by fat food, but it quite not means that fat is harmful.

Absence of fats in a ration sooner or later brings an organism over to death. Really, fats are irreplaceable foodstuffs. They provide the varied functions, serve as plastic material, by the concentrate of energy of and other adiposes as a rule, hard. Jaboties more often are liquid. Sterols behave to the concomitant substances, liposoluble vitamins, pigments, phosphatides. Sterols are high molecular cyclic alcohols. A cholesterol behaves to them. A cholesterol enters in the complement of cellular membranes, influences on their permeability. Much cholesterol is contained in the tissue of cerebrum and myelin shells of nervous fibres, where he participates in metabolism. A cholesterol assists neutralization of poisonous substances also. In the process of metabolism a cholesterol grows into bilious acids. The different diseases of liver violate the process of education and selection of cholesterol, that creates pre-conditions for his delay in blood, tissues and origins of atherosclerosis. Surplus of lipids in food results in obesity of liver - fatty hepatosis, when a more than 50 %% mass of organ is on fat. Obesity of liver violates her numerous functions, that unfavorably affects on the vital functions of organism. It is suffered a fatty hepatosis on the average 27 %% population. The most frequent reasons of hepatosis are alcoholism, diabetes mellitus, common obesity. Entering of surplus fat organism results only in fatty infiltration of liver, but also to obesity. At persons with surplus body weight the change many organs and tissues are exposed to, foremost is a heart, liver, all types of exchange are violated - fatty, albuminous, carbon, water-salt; in the total there is a row of diseases. Obesity steals up unnoticed. Even the insignificant daily exceeding of individual requirement in calories steadily results in the accumulation of fat in an organism, that it contingently the laws of biology. Nature acted very wisely, producing ability to stock fat for the future use in an organism, in case of starvation, but did not look after creation of mechanisms, braking an appetite. People suffering obesity are not mobile, and untapped energy assists the accumulation of fat in turn, - there is a vicious circle.

To the lipometabolism the exchange of carbohydrates is closely related. Carbohydrates make greater part of food ration of man. And it is not casual, because they execute numerous and various functions in an organism. Foremost, due to carbohydrates considerable part of power necessities of organism is satisfied, thus the value of carbohydrates rises at physical activity, because working muscles increase their consumption. Permanent inflow of carbohydrates the mews of the central nervous system need, therefore even the brief stopping or reduction of their delivery with blood in a cerebrum results in violation of work of nervous mews. Carbohydrates are needed not only as an energy source. They go to the construction of skeleton of amino acids, nucleic acids, participate in the construction of immunoproteins, ATP, enter in the complement of substances qualificatory group belonging of blood. Reduction of amount of carbohydrates entering organism with food results in violation of exchange of substance. Surplus of the untapped muscles carbohydrates put aside as fat brakes mastering of glucose, that in turn increases a concentration in blood of carbohydrates utilization of that by a muscular tissue grows short. What more persons use sugars, the a carbohydrate-fatty exchange is more considerable violated, that is pre-condition to obesity and diabetes mellitus.

**Conclusion.** Food in certain terms can be harmful for an organism. Cognition of mechanisms of unfavorable influence of food allows to warn sickly reactions. Task standing before medicine, - to use food as curative factor for the different diseases of people.

Among the qualificatory elements of quality of life an important role belongs to different parties of feed - his food structure, calorie content, methods of preparation of food, rituals related to the feed.

In the process of feed one of major physiological necessities of human organism is satisfied, providing his forming, functioning, stability to unfavorable influences of environment. A feed sufficient in quantitative and valuable in a quality relation is considered rational, or balanced. Rationally a feed must provide the optimal flow of all physiological functions, height and physical development, capacity and health of man in accordance with age, sex, character of labour, climatic and by other terms.

All food substances are required an organism: both squirrel and fats, and carbohydrates, vitamins and mineral salts. The ration of feed it is necessary to diversify, including and containing squirrel milk, curd, fish or meat, and rich in vitamins, and also mineral salts vegetables, fruit and fats, including vegetable oils necessary to the organism fat polyunsaturated acids enter in the complement of that.

The requirements of man in energy that he gets from food depend both on the individual features of organism (sex, age, weight, height, exchange processes) and from character of labour activity, terms of way of life, rest and environment (foremost from a climate). A surplus on calorie content feed assists development of obesity, atherosclerosis, diabetes of and other of metabolic disturbances. Power insufficiency of feed (chronic malnutrition, hunger) conduces to the general weakening and exhaustion of organism and development on this soil of heavy diseases. In the conditions of the high technogenic loading on an environment there is contamination of entering food products of agriculture, cattle breeding and fishing. Food foods are contaminated by pesticides, components of fertilizers, forage stock-raising additions, trace-elements of heavy metals (antimony, arsenic, cadmium, chrome, cobalt, lead, Mercury, nickel, tin, thallium, zinc, copper of and other), technical chemicals, ingredients of packing materials. The agricultural produce grown on the fields with the intensive use of nitric fertilizers contains the high amount of nitrates. In foods purposefully enter food additions for an improvement from food internalss or perfection of technology of production. Foodstuffs can appear muddy and radioactive isotopes. The cases of origin of serious endocrine diseases are well-known. Milk of feeding women in muddy districts can contain pesticides and other xenobiotics.

At a failure to observe sanitary-hygenic and

sanitary-epidemiological norms and rules, food can become reason of different diseases of microbal and unmicrobal etiology. Illnesses, food takes part in the mechanism of transmission of that, can be caused by bacteria, viruses the simplest, helmints and microfunguss, and also by the poisonous admixtures of different origin.

Correct correlation of basic components of food and her calorie content are so important for the health of population, that the scientifically reasonable norms of the differentiated feed are worked out in many countries.

1. Рациональное питание/ Смоляр В.И. – Киев: Наук. думка, 1991.

2. Додонов Б. И. В мире эмоций: Киев, 1987.

3. Изард К. Эмоции человека: Пер. с англ. М., Изд-во Моск. ун-та, 1980.

4. Касмынина Т.В. “Влияние алкоголя на организм полростка”.

5. Малая советская энциклопедия - том 1.

6. Капустин Д.З. “Здоровье мужчины” – перевод с англ.

7. "Закаливайтесь на здоровье", А.П. Лаптев, Москва, "Медицина", 1991г.

8. "Энциклопедия для маленьких джентльменов", Диамант "Золотой век", Санкт-Петербург, 1995г.

9. Попов В., Суслов Ф., Ливадо Е. Москва,  «Физкультура и спорт», 1984 г.