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HEALTHY PROPER NUTRITION IS THE BASIS OF HEALTH OF EACH OF US

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Abstract

The article reveals the relevance of proper balanced and rational nutrition as one of the main physiological factors for promoting human health. The nature of nutrition depends on the metabolism, in the body, the structure and function of cells, tissues, organs. And that means that in the daily diet should be the main components: proteins, fats and carbohydrates

Keywords: nutrition, diet, vitamins, trace elements, calories, balance.

Formulation of the problem. The quality of food products, namely proper processing, preparation and storage prevents the development of food diseases and their spread. Food safety and raw materials are referred to as the main factors that determine the health of the population of Ukraine and the preservation of its gene pool. During the years, food safety in Ukraine has deteriorated due to the increase in the supply of the food industry, especially from abroad, reducing the control over the production and sale of food, which causes serious anxiety [1, 2, 5]. And a number of procedures to be followed to avoid potentially serious health hazards, not only resulting in the disease and its progression, but in some cases, to lethal. It is known that more than 70% of all pollutants enter the human body with food, which leads to health hazards [13, 24].

Analysis of recent research and publications.

According to nutritionists, it is known that in modern society, only traditional nutrition inevitably leads to certain types of food insufficiency [10]. The reasons are protein deficiency, lack of vitamins, macro- and micro-nutrients, consumption of refined foods, widespread use of various food additives that are not biological [7,14].

Nutrition provides the most important function of the human body, supplying it with the energy required to cover the cost of life processes. For normal energy, plastic and catalytic processes of the body, various foods that affect metabolism, cell and organ function are required. Substances that enter the body with food affect physical health, state of mind and emotions. Physical activity or passivity, cheerfulness or depression depend on full normalized and quality nutrition [1,8,9].

The nutritional factor plays a significant role in the prevention and treatment of many diseases, and therapeutic nutrition is a prerequisite for the treatment of many diseases, including metabolic and gastrointestinal products [15,21].

A characteristic feature of the modern global food market is the rapid development of segments of new foods designed to improve the functioning of all organs and systems of the human body: innovative foods made by the latest technologies or new raw materials (Novel

Food); Ready-to-Eat is ready for consumption; special purpose products, or functional products; Healthy food products [6,11]. And the food industry becomes an important component of the human health system and has a priority in shaping its intellectual potential and social activity. The new generation of foodstuffs meets the requirements of modern nutrition - the need to provide all segments of the population with accessible health (functional) products, since the state of human health depends directly on the structure and quality of nutrition [12,13].

Selection of previously unresolved parts of the general problem. The main and unresolved problem is the proper rational and healthy eating, which improves metabolism, improves health and saturates the human body with the necessary substances and minerals [16, 29].

In the world market of new technologies and foodstuffs, the tendency to increase the number of qualitatively new products intended to prevent various diseases, strengthen the body's defenses, reduce the risk of toxic compounds and adverse economic factors [17].

However, increasing the absorption of the necessary elements of foodstuffs is relevant for scientists and consumers. The need to absorb and introduce new approaches and new world trends in the food industry of Ukraine to create products that are now called differently (wellness, functional, special). But despite the terms, the essence of such products is one - the protection of the human body from adverse environmental factors, improving health, improving adaptation opportunities, prolonging life expectancy [18, 23, 25].

Goal. In connection with the above, the purpose of our work is to generalize and systematize modern data on organic, multifaceted and direct communication of nutrition and human health and the impact of minerals and nutrients when entering the human body with food.

Presentation of the basic material of the study. Nutrition provides the most important function of the human body, supplying the energy necessary to cover the costs of vital processes for the normal implementation of energy, plastic and catalytic processes of the body requires a variety of foodstuffs [19,29]. The nature of the nutrition depends on the metabolism, in the body,

the structure and function of cells, tissues, organs. And this means that the daily diet should have the main components: proteins, fats and carbohydrates [2, 20].

As you know, the building materials of the body are proteins that form the basis of muscles, skin, hair, nails. They contain 8 indispensable amino acids that are not produced in the body and should be obtained.

Proteins are contained in the following products:

- beef proteins and chicken are absorbed by 80-96% (daily requirement of at least 100g.);
- rye and wheat bread (up to 10 g of proteins);
- Milk (up to 5 g).

Proteins have integral biological functions:

1) catalytic (acceleration of biochemical reactions in the metabolic process);

2) structural (structural protein of connective tissue of collagen);

3) motor (contractile ability to build and function on a common principle - actin and myosin in muscle fiber);

4) transport (transport in the blood of hormones, gases (hemoglobin and myoglobin), iron, residues of fatty acids (blood albumin), etc.; active transport of many substances through the cell membrane);

5) regulatory (regulator of velocity of biochemical processes (pituitary hormones, pancreas); reading hereditary information from DNA; ensure the transformation and transmission of information into the cell (hormonal signal).

6) protective (antibody synthesis in response to the appearance of foreign molecules (antibodies bind and neutralize them); one of the proteins that performs this function is interferon protein, which neutralizes foreign nucleic acid; toxins (eg botulism).

7) energy (proteins can be a source of energy for humans, so as a result of complete oxidation of 1 g of protein is released about 17 kJ of energy, but proteins are not deposited about the stock - excessive amount of proteins received in the body is consumed to produce energy);

8) information (transmission of genetic information from generation to generation) [12, 25, 31].

An integral role of protein in the human body

- need for growth and development;
- metabolic corrector (metabolism);
- influence of dynamic action on metabolism;
- regulator of water balance in the body;
- amplifier of the immune system.

Unlike proteins, fats provide an average of 33% of the daily energy of the diet and enter the following nutrients: vitamins A, O, E, essential fatty acids, lecithin [22].

The main functions of fats are:

1) energy (biological oxidation);

2) reserve (depot of energy and plastic resources);

3) structural (component of cell membranes, tissue elements of nerve tissue);

4) synthesizing (basis for synthesis of steroid hormones, prostaglandins);

5) transport (combination of lipids with proteins tolerate fat -soluble vitamins in the body);

6) protective (fixation of internal organs, protection of them from mixing, protection against external influences);

7) thermostat (protection of the body from cold, body temperature stabilizer).

The most important component of fats is saturated and unsaturated fatty acids, which are subdivided into monounsaturated fatty acids (MNZHK) and polyunsaturated fatty acids (PUFA). Of particular physiological importance are PUFAs, which are indispensable in the body and perform a number of most important functions:

- composition of cell membranes and other structural elements of tissues;

- participate in the synthesis of prostaglandins - hormonal substances that regulate many physiological processes, are involved in the breakdown of lipoproteins, cholesterol;

- prevent aggregation of blood cells and formation of blood clots;

- remove inflammatory processes, etc. [24,30].

Less influential but necessary carbohydrates that have the following functions:

1) energy (splitting to monosaccharides, which are oxidized to CO₂ and H₂O; with a complete decomposition of 1 g of carbohydrate, 17, 6 kJ of energy is released);

2. Construction or structural (composition of supporting elements).

This component is found in milk, seeds of oil plants [27, 28].

It should be remembered that excess fat in food impairs the absorption of proteins, calcium, magnesium, increases the need for vitamins that provide fat metabolism.

Currently, the problem of food contamination with toxins with immunosuppressive action and the ability to cause malignancies and increase contamination of fruit and vegetable products of processing enterprises as a result of the use of non -standard raw materials has intensified. The use of fertilizers leads to the accumulation of nitrates and heavy metals in products [1, 2, 5].

The reasons for the poor quality of food sold to population are:

- poor material and technical base and insufficient equipment of many food and trade enterprises;
- extremely low level of sanitary and industrial culture;
- use of substandard raw materials and components;

• a sharp weakening of production and sectoral control in connection with the liquidation of economic management bodies with the laboratory service, which is input to their composition, as well as the desire of manufacturers to reduce the cost of product quality control.

The analysis of the criminogenic situation in the consumer market indicates the sharp growth of entities involved in illegal entrepreneurial activity related to the illegal production and sale of counterfeit products. Recently, many criminal cases have been initiated for various violations of the rules of trade, seized food products for millions of rubles, and many criminal criminal

facts of release or sale of alcohol products have been revealed, which does not meet the requirements of safety for the life and health of people [13, 21].

The results of food quality control indicate high levels of contamination of products with toxic chemical compounds, biological agents and microorganisms. In total, in Ukraine from 12 to 15% of dairy products, fish and fish cooks, from 7 to 12% of meat products do not meet the requirements of standards for bacteriological indicators. From 1.5 to 10% of food samples contain heavy metals, including mercury, lead, cadmium, copper, zinc, of them from 2.5 to 5% in concentrations exceeding the maximum permissible [1, 2, 5].

In Ukraine, a lot has been done to improve food safety and quality. Thus, on September 20, 2014, the new European integration law on basic principles and requirements for food safety and quality, and gradually enter into force of its provisions - transitional periods for the introduction of the principles of the HACCP food safety control system [6, 9, 27].

Conclusions.

1. The constant and proper use of plant and animal products reduce the risk of disease.

2. High -quality products are a guarantee of good health.

3. The use of balanced minerals of products increases and improves the metabolic processes of the body.

Prospects for further research. Further research on this topic will allow you to study the effect on the body of pesticides in more detail and will allow the correct selection of nutrition, which is the key to good health.

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