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EFFECT OF CHEMICAL ELEMENTS IN HUMAN LIFE AND MEDICINE

Saidmirzayeva Dilnoza Bakdurdiyevna
Assistant, Jizzakh Polytechnic Institute

Аннотация
В данной статье представлена информация о роли и значении химических элементов и высокомолекулярных соединений в жизни человека и медицине.

Ключевые слова. Химические элементы, полимеры, белки, углеводы, клетки, жиры.

Abstract
In this state, information is presented about the role and meaning of chemical elements and high-molecular compounds in human medicine.

Keywords. Chemical elements, polymers, belk, carbohydrates, cells, fat.

Introduction

In scientific and philosophical literature, life is a way of life of protein bodies, and this way of life is characterized by the fact that the chemical components of these bodies are constantly renewed by themselves.

In fact, it is very important to understand the essence of life and to know the chemical composition of life-forming substances for the medical management of the human body.

They differ from ordinary organic substances in that their molecular mass is very high. For example, the molecular mass of ethyl alcohol is 46 carbon units, the molecular mass of acetic acid is 60, and that of benzene is 78 carbon units.

The molecular mass of egg protein is 36,000, and the molecular mass of muscle protein is equal to 1,500,000 carbon units. Therefore, proteins are considered high-molecular or polymeric substances.

Proteins differ from polymers by the following properties: the simplest polymer, polyethylene, is formed from the polymerization of several hundred and thousands of ethylene molecules, and oxyls are formed from amino acids. But it has been proven that the amino acids in the molecule consist of more than 20-30 amino acids. Therefore, proteins are a complex substance consisting of various acid residues (radicals), amino and carboxyl groups.

Food, water and air entering the body are different chemical elements and undergo various complex changes in the body. As a result, the processes of synthesis and separation in the body take place in the cells of the human body in connection with each other. Therefore, a living cell is characterized by active activity.

All the elements that make up the cell can be divided into three groups. The first group includes elements of oxygen, carbon, hydrogen and nitrogen, making up 98% of the cell composition; the second group of elements includes potassium, sulfur, phosphorus, chlorine, magnesium, calcium, sodium and iron elements and makes up 1.9% of the cell. All other elements are considered the third group and are in a very small amount in the cell. Therefore, these elements are called microelements. These elements become complex substances necessary for humans during various complex changes in the body.

Part of the chemical elements that make up the composition of the cell is in the form of organic substances, and the second part is in the form of inorganic substances. For example, carbohydrates and fats are composed of carbon, hydrogen and oxygen. In addition to the above elements, all proteins and nucleic acids also contain nitrogen and sulfur elements. Phosphorus is a component of nucleic acids, iron is in hemoglobin, magnesium is in chlorophylls, and iodine is in thyroid hormone. Cobalt is part of vitamin V12 and is of great importance in human life.

Microelements in the human body are also of great importance, and their sufficiency is of great help in fulfilling the functions of macroelements. The lack of microelements, in turn, has a strong effect on the metabolism in the body and causes various diseases.

If there is a lack of zinc, i.e., zinc in the body, first of all, sensory abilities - sight, smell, taste - are lost. This, in turn, can lead to loss of appetite, indigestion, and diseases such as constipation. Depressed mood, fatigue, loss of interest in life are the main symptoms of zinc deficiency. Hair loss, white spots on nails, dermatitis and slow healing of wounds, brittle bones, rheumatism and arthritis are also due to lack of zinc. Zinc is also important during pregnancy. In 13-18% of cases, zinc deficiency can cause hydrocephalus, palate defect, spinal curvature, hernia formation, heart defects and other changes in fetuses and babies. Also, when zinc is lacking, the formation of new cells is delayed, damaged cells are not regenerated. Aging is accelerated in older people, the body of children and adolescents does not develop well.

The state of our immunity depends on this mineral, and when the first symptoms of colds and flu appear, zinc is recommended along with vitamin C. Doctors prescribe zinc supplements to patients a few days before surgery and until recovery. Foods rich in zinc are recommended for teenagers. Because this microelement increases the

production of hormones that ensure growth and weight gain. Therefore, zinc is very important during the rapid growth of the neck and puberty.

It turns out that zinc is not well absorbed by the body for some reason. For example, people who are averse to sweets and salty things should know that such foods lead to a decrease in zinc in the body. Drinking a lot of alcohol in men, and irregularly taking birth control pills in women can often cause a lack of zinc in the body. In cirrhosis of the liver, the zinc content in the blood decreases as a result of poor absorption of zinc, excessive excretion in urine, or toxic effects.

To prevent the disease, it is necessary to get used to eating natural fruits - vegetables, greens, spices, legumes and national dishes prepared from them, which contain a lot of zinc. Grapes and mulberry molasses, apricots and bitter almonds, black raisins, sorrel, walnuts, wholemeal bread, sumac, potatoes, tomatoes, peas, milk and meat products, and egg yolks are rich in zinc.

Another chemical element, iron is an essential element for life, it is part of hemoglobin in the blood, participates in oxygen exchange and oxidation processes. Tissues also contain substances that perform the functions of oxidizing and reducing enzymes. People and animals get iron from food (iron is especially abundant in liver, meat, eggs, legumes, bread, cereals, and beets).

If the body does not have enough magnesium salts in magnesium food, the normal excitability of the nervous system and muscle contraction are disturbed.

Silver has healing properties. 2,500 years ago, Egyptian soldiers pressed silver on the wounds of the wounded, and with this method, the wounds healed. Even now silver is effectively used in medicine. Silver is the majority in egg yolk. If a person uses silver more than the norm, silver enters the body in a toxic form. When you have a toothache, if you press a silver spoon or other items made of this metal, it stops the pain temporarily.

In the body, water mainly acts as a solvent and makes up 70-80% of cells and tissues. In water, all inorganic substances, except for carbonate and phosphate salts, are ion-free. The amount of table salt is 0.9%, and it is of great importance in the management of the body. A change in the amount of table salt in the body causes various pathological conditions. Chlorine ions in the blood increase the activity of some enzymes.

We have no doubts that learning a lot of information about the specific importance of all chemical elements in the body and strictly following a healthy lifestyle will make a person mature in every way.

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