

Dietary supplements - description, benefits, effects on the body and the best sources.

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Abstract. In today's urban lifestyle, many of us do not have access to naturally grown foods. As a result, each of us may not receive enough nutritional elements necessary for him.

Biologically active additives (BAS), which are added to food, making it more healthy and nutritious, will help compensate for this lack of nutrients. This eliminates some health problems, cleanses the body, increases energy, and improves appearance.

Key words: Dietary supplements, general characteristics, daily requirement, digestibility, beneficial properties, signs of deficiency, signs of excess

Products with the maximum content of biologically active substances:

- Sea fish fatty varieties
- Carrot [1]
- Avocado [2]
- Pineapple [3]
- Sea buckthorn [4]
- Oats [5]
- wheat sprouts
- Grapes [6]
- Iceland moss
- Sea kale
- Garlic [7]
- Walnut [8]
- Beetroot [9]
- Aralia Manchurian
- Ivan-Chai [10]

General characteristics of dietary supplements

Dietary supplements are biologically active components that are not drugs. They are added to the main diet to avoid deficiency of one or another element.

The history of dietary supplements is not that long - these substances have been actively used since the early eighties of the last century. Since then, experts have been keeping detailed records of them, gradually improving their composition, studying the properties of new healing substances. Dietary supplements are more than 150 compounds, each of which has its own unique characteristics!

Daily requirement for dietary supplements

Only a specialist can calculate the consumption rates for a particular additive. This takes into account not only the disease to which there is a tendency, but also height, weight, and gender.

If for some reason you cannot use one or another composition (individual intolerance), the doctor will select a complete replacement for you. The specialist will also tell you the time during which you should use this supplement.

The need for dietary supplements is increasing:

There are situations in life when a person simply needs increased dosages of one or another element. In addition, there is an increased need for vitamins, macro- and microelements, proteins, fats and carbohydrates. Based on this, the need for the use of dietary supplements increases:

- for pregnant women [11];
- children whose rapid growth and nutritional needs do not always correspond to the nutritional value of the daily diet [12];
- people with health problems (this includes problems with the musculoskeletal system, as well as diseases of internal organs and systems);
- elderly people who experience a slowdown in regeneration processes, decreased vitality, and problems with the musculoskeletal system [13];
- in stressful situations, when the body produces the nutrients it needs worse [14].

The need for dietary supplements is reduced:

Good nutrition, fresh air, lack of stress in life or the ability to cope with it, absolute or relative health can make taking dietary supplements unnecessary.

Assimilation of dietary supplements

Since dietary supplements are famous for their high efficiency, they are absorbed quickly and are characterized by a high degree of activity.

Beneficial properties of dietary supplements and their effect on the body:

- regulation of fat, carbohydrate, protein and mineral metabolism;
- optimization of the activity of enzyme systems;
- structuring of cell membrane components;
- antioxidant protection [15];
- ensuring cellular respiration processes;
- support of electrolyte balance;
- formation of acid-base balance;
- hormone-like effect;
- regulation of reproductive function;
- activation of the immune system;
- participation in hematopoietic processes;
- regulation of blood clotting processes;
- normalization of myocardial excitability and vascular component;
- regulation of nervous activity;
- connective tissue synthesis;

- normalization of detoxification processes;
- support of natural intestinal microflora.

Interaction of dietary supplements with other elements:

Each dietary supplement has a personal “relationship” with one or another element of the periodic table. For example, alkaline additives do not like the presence of acid, and protein compounds react negatively to iron salts. In addition, vitamins contained in dietary supplements can be destroyed upon contact with metals.

Signs of a lack of biologically active substances in the body

- dizziness;
- muscle weakness;
- drowsiness;
- low labor productivity;
- symptoms identical to the state of vitamin deficiency.

In addition to the symptoms listed above, which are the most common, each supplement has its own deficiency symptoms. For example, with a lack of selenium, spots appear before the eyes; with a lack of vitamin A [16], dry skin and brittle nails are observed, etc.

Signs of excess biologically active substances in the body

- nausea;
- vomit;
- hallucinations;
- dizziness;
- elevated temperature;
- weakness;
- symptoms of excess vitamins, microelements and other components included in the dietary supplement.

Factors influencing the content of biologically active substances in the body

The main factor in the presence of biologically active substances in our body is good nutrition. The word “complete” should mean a balanced consumption of vitamins, proteins, fats, hydrocarbons [17-19], as well as micro- and macroelements included in food products. Only in this case can you expect good health and excellent mood.

Supplements for beauty and health

Some dietary supplements are good for helping the body in the process of self-cleansing. This means that as a result of taking certain dietary supplements internally, skin color improves and the skin is cleared of acne [20].

As for the external use of dietary supplements, cosmetology deals with this. Thanks to modern technologies, dietary supplements are used for body care. There are also washes, anti-wrinkle creams, lotions for various parts of the body, sprays, etc.

It should be noted that, unlike conventional cosmetics, products with dietary supplements have a more pronounced effect and effectiveness.

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