

# Omega-6 – description, benefits, effect on the body and the best sources

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**Abstract.** All fats, from a nutritional point of view, are divided into beneficial and harmful to the body. Typically, healthy fats come from foods that are high in essential fatty acids. Among them, nutritionists highlight Omega-3 and Omega-6 fatty acids. Our story today is about the last of them.

*Key words:* Omega-6, general characteristics, daily requirement, digestibility, beneficial properties, signs of deficiency, signs of excess

## Omega-6 rich foods:

- Grapeseed oil
- Sunflower oil
- Wheat germ oil
- Corn oil
- Walnut oil
- Cottonseed oil
- Soybean oil
- Sesame oil
- Peanut butter
- Mustard oil
- Rapeseed oil
- Linseed oil
- Walnuts [1]
- Sesame
- Pumpkin seeds

## General characteristics of Omega-6

Omega-6 is divided into two large groups: linoleic and gamma-linoleic fatty acids. In addition, Omega-6 acids also include eicosadienoic, adrenic, tetracosatetraenoic, and docosapentaenoic acids. These beneficial and necessary acids for the body are contained in sesame seeds, cotton, hemp, sunflower, corn [2], as well as in oils prepared from them. There are also many of them in legumes, safflower, walnuts and pine nuts, spirulina [3], avocado [4], coconut, poultry and eggs [5].

Thanks to the use of Omega-6, an optimal balance of intermediary hormones (prostaglandins) is created in the body. They are necessary to improve the condition of the skin, relieve inflammation, relieve pain, are necessary for energy, are catalysts for the vitality of the body, and are also responsible for the beauty of the skin, hair and nails [6-8].

## Daily requirement for Omega-6

The body's need for Omega-6 depends on many factors, so the daily requirement is individual for each person. The numbers cited by nutritionists range from 4.5 to 8 grams per day. This depends on the total calorie content of the diet (5-8% of the energy value of the entire diet). In this case, you should maintain the ratio of Omega-3 and Omega-6 in your daily food intake. Acceptable norm: 1:2 and 1:4. Unfortunately, the average resident of our country usually exceeds the Omega-6 consumption rate by 10 times!

#### **The need for Omega-6 increases:**

- For various acute and chronic diseases of the body, when much less Omega-6 is absorbed than what came from food. For example, this happens when there are disorders of the gastrointestinal tract. Therefore, for patients with liver disease, the dosage of Omega-6 is increased.
- In the cold season, when additional energy is needed to heat the body [9].
- With a lack of fat-soluble vitamins in the body, for example, vitamin A [10].
- During pregnancy [11]. An additional amount of Omega-6 is used to build new cells, tissues and organs of the unborn child.

#### **The need for Omega-6 is reduced:**

- When it is warm, and the body does not spend additional energy on heating.
- For low blood pressure.

#### **Omega-6 Absorption**

The full digestibility of Omega-6, first of all, depends on the quality of the product itself. Heating vegetable oils and storing them in light is not permissible. Otherwise, the body will not receive Omega-6 from food, due to its complete destruction.

To absorb essential fatty acids, the body uses special enzymes, which are usually passed on in childhood through mother's milk and are later produced independently.

#### **Beneficial properties of Omega-6 and its effect on the body**

- Omega-6 is one of the main components of cell membranes and other components of the cell. Affects intracellular metabolism, facilitating and accelerating the removal of toxins from the body.
- Promotes improvement of the cardiovascular system [12,13].
- Increases brain activity, reducing the risk of developing mental disorders.
- Strengthens the body's immune system, making cellular barriers stronger and more impenetrable to invasion [14].
- It is an excellent antidepressant [15].
- Improves hair and nail growth [16,17].
- Strengthens the skeletal system of the body [18].

In addition, these fatty acids reduce the level of bad cholesterol and suppress any inflammatory process. Also, it has been clinically proven that the use of Omega-6 is effective in the treatment of multiple sclerosis at any stage of the disease. However, maximum effectiveness was observed only with the simultaneous intake of Omega-6 and flaxseed oil rich in Omega-3 [19].

## Interaction with essential elements

The effect of Omega-6 on the body is closely related to Omega-3. Omega essential fatty acids have a positive effect on the body in a certain ratio. If the balance of these acids in the body is disturbed, negative consequences are possible, which manifest themselves in deteriorating health.

Omega-6 is also closely related to fat-soluble vitamins. It is well absorbed in combination with proteins [20].

## Signs of Omega-6 deficiency in the body:

- Increased blood cholesterol levels.
- Increased platelet count (thick blood).
- Frequent viral diseases. Weak immunity.
- Flabbiness of the skin.
- Obesity. [21] As experts explain, with a lack of Omega-6, “holes” appear in the cell wall, while metabolism slows down, and the body rapidly increases body weight.
- Problems with joints and intervertebral discs
- PMS [22], hormonal disorders, hirsutism and infertility in women.

## Signs of excess Omega-6 in the body

- Inflammatory processes in tissues and internal organs.
- Frequent depression [23].
- Blood thickening.

In addition to the signs of excess Omega-6 listed above, it is also worth considering the reverse effect that this substance has. Some signs, such as depression, thick blood, frequent inflammation, can appear both with a lack of this nutritional component and with its excess.

## Omega-6 for beauty and health

Healthy and thick hair, strong and shiny nails, elastic skin are the result of omega-containing products. In addition, Omega-6 is included in many weight loss medications, as well as in sports nutrition complexes.

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