

Saturated fatty acids - description, benefits, effects on the body and the best sources

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Abstract. In the modern world, life rushes by at an accelerated pace. Often there is not enough time even to sleep. Fast food, saturated with fat, which is commonly called fast food, has almost completely conquered its place in the kitchen.

But thanks to the abundance of information about a healthy lifestyle, more and more people are drawn to a healthy lifestyle. However, many consider saturated fats to be the main source of all problems.

Let's figure out how justified the widespread opinion about the dangers of saturated fats is. In other words, should you eat foods rich in saturated fat at all?

Key words: Saturated fatty acids, general characteristics, daily requirement, digestibility, beneficial properties, signs of deficiency, signs of excess

Products with the maximum content of EFAs:

- Butter [1]
- Pork lard
- Palm oil
- Beef fat
- Coconut oil
- Salmon
- Hard cheese
- Chocolate
- Duck meat
- Freshwater fish
- Olive oil
- Whipped cream
- Processed cheese
- Sour cream 20%
- Boiled sausage

General characteristics of saturated fatty acids

From a chemical point of view, saturated fatty acids (SFAs) are substances with single bonds of carbon atoms. These are the most concentrated fats [2].

EFAs can be of natural or artificial origin. Artificial fats include margarine, natural fats include butter, lard, etc.

EFAs are found in meat, dairy, and some plant foods.

A special property of such fats is that they do not lose their solid form at room temperature. Saturated fats fill the human body with energy [3] and are actively involved in the process of cell structure.

Saturated fatty acids are butyric, caprylic, caproic, and acetic acid. As well as stearic, palmitic, capric acid and some others.

EFAs tend to be deposited in the body “in reserve” in the form of fat deposits. Under the influence of hormones (adrenaline and norepinephrine, glucagon, etc.), EFAs are released into the bloodstream, releasing energy for the body.

Helpful advice:

To identify foods that are higher in saturated fat, simply compare their melting points. The leader will have higher EFA content.

Daily requirement for saturated fatty acids

The need for saturated fatty acids is 5% of the total daily human diet. It is recommended to consume 1-1.3 g of fat per 1 kg of weight. The need for saturated fatty acids is 25% of the total fat. It is enough to eat 250g of low-fat cottage cheese (0.5% fat), 2 eggs, 2 tsp. olive oil.

The need for saturated fatty acids increases:

- for various pulmonary diseases: tuberculosis, severe and advanced forms of pneumonia, bronchitis, early stages of lung cancer;
- during the treatment of stomach ulcers, duodenal ulcers, gastritis. For stones in the liver, gall bladder or bladder;
- during severe physical exertion;
- with general exhaustion of the human body;
- when the cold season comes and additional energy is spent on heating the body;
- during pregnancy and breastfeeding [4,5];
- among residents of the Far North.

The need for saturated fat is reduced:

- with significant excess body weight (you need to reduce the intake of EFAs, but not eliminate them completely!);
- with high blood cholesterol levels [6];
- cardiovascular diseases;
- diabetes;
- with a decrease in the body's energy consumption (rest, sedentary work, hot season).

EFA digestibility

Saturated fatty acids are poorly absorbed by the body. The consumption of such fats involves long-term processing of them into energy. It is best to use products that have a small amount of fat.

Choose lean chicken, turkey, and fish is also suitable. Dairy products are better absorbed if they have a low fat content.

Beneficial properties of saturated fatty acids, their effect on the body

Saturated fatty acids are considered to be the most harmful. But if you consider that breast milk is saturated with these acids in large quantities (in particular, lauric acid), it means that the consumption of fatty acids is inherent in nature. And this is of great importance for human life. You just need to know which foods are best to eat.

And you can get plenty of such benefits from fats! Animal fats are the richest source of energy for humans. In addition, it is an indispensable component in the structure of cell membranes, as well as a participant in the important process of hormone synthesis. Only due to the presence of saturated fatty acids does the successful absorption of vitamins A, D, E, K [7-10] and many microelements occur.

Proper consumption of saturated fatty acids helps improve potency [11], regulates and normalizes the menstrual cycle. Optimal consumption of fatty foods prolongs and improves the functioning of internal organs.

Interaction with other elements

It is very important for saturated fatty acids to have interaction with essential elements. These are vitamins that belong to the class of fat-soluble.

The first and most important on this list is vitamin A. It is found in carrots [12], persimmons [13], bell peppers [14], liver, sea buckthorn [15], and egg yolks. Thanks to him - healthy skin, luxurious hair, strong nails [16-18].

Vitamin D is also an important element, which helps prevent rickets.

Signs of a lack of EFAs in the body

- disruption of the nervous system;
- insufficient body weight;
- deterioration of the condition of nails, hair, skin;
- hormonal imbalance;
- infertility.

Signs of excess saturated fatty acids in the body:

- significant excess body weight;
- atherosclerosis;
- development of diabetes;
- increased blood pressure, cardiac dysfunction;
- formation of stones in the kidneys and gall bladder.

Factors influencing the content of EFAs in the body

Not consuming EFAs puts increased stress on the body because it has to look for substitutes from other food sources to synthesize fats. Therefore, the consumption of EFAs is an important factor in the presence of saturated fats in the body.

Selection, storage and preparation of foods containing saturated fatty acids

Following a few simple rules when selecting, storing and preparing foods will help keep saturated fatty acids healthy.

1. If you do not have increased energy expenditure, when choosing food products it is better to give preference to those in which the saturated fat content is low. This will enable the body to better absorb them. If you have foods high in saturated fatty acids, then you should simply limit yourself to small amounts.
2. Storage of fats will be long-term if moisture, high temperature, and light do not enter them. Otherwise, saturated fatty acids change their structure, which leads to deterioration in the quality of the product.
3. How to properly prepare foods with EFAs? Culinary processing of foods rich in saturated fats involves grilling, roasting, stewing and boiling. It is better not to fry. This leads to an increase in calorie content of food and reduces its beneficial properties. [19]

If you are not going to engage in heavy physical labor, and you do not have any special indications for increasing the amount of EFAs, it is still better to slightly limit the consumption of animal fats in your food. Nutritionists recommend trimming excess fat from meat before cooking it.

Saturated fatty acids for beauty and health

Proper consumption of saturated fatty acids will make you look healthy and attractive. Gorgeous hair, strong nails, good vision [20], healthy skin - all these are integral indicators of a sufficient amount of fat in the body.

It is important to remember that EFA is energy that should be expended in order to avoid the formation of unnecessary “reserves”. Saturated fatty acids are an essential component of a healthy and beautiful body!

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