

Oxalic acid - description, benefits, effects on the body and the best sources

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Abstract. Who among us doesn't love delicious "green borscht", which is prepared when there are still few vitamins. This spring masterpiece, in addition to meat, eggs and sour cream, contains the component due to which it earned its name. This component is called sorrel. Anyone who tries to chew its leaves will notice a sour taste caused by oxalic acid. This article is dedicated to her.

Keywords: oxalic acid, general characteristics, daily requirement, digestibility, beneficial properties, signs of deficiency, signs of excess

Foods rich in oxalic acid:

- Garden sorrel [1]
- Rhubarb Tungut
- Garden spinach [2]
- Beet chard
- Asparagus [3]
- cocoa beans
- Red gooseberry
- Blackberry [4]
- Mango
- Carambola
- Black tea
- Coffee "Robbusta"
- Leaf mustard
- Eggplant [5]
- Garden parsnip

General characteristics of oxalic acid

Oxalic acid is a dibasic saturated carboxylic acid belonging to the class of strong organic acids [6]. Present in many plants, both in free form and in the form of salts called oxalates. In the body, oxalic acid is an intermediate metabolic product.

Daily requirement for oxalic acid

Due to the fact that oxalic acid is not essential, the amount that should be consumed daily is currently considered to be no more than 50 mg, according to research from the Chicago Institute of Nutrition and Health.

The need for oxalic acid increases:

According to the information we gleaned from the works of luminaries of world medicine, natural oxalic acid, included in the products listed below, can help with:

- infertility;
- amenorrhea;
- male impotence;
- atypical course of menopause;
- chlamydia and trichomoniasis;
- tuberculosis [7] (chronic);
- rheumatic pain;
- headache [8];

In addition, oxalic acid has a bactericidal effect on *Proteus*, *Escherichia coli* and *Staphylococcus aureus* [9].

The need for oxalic acid is reduced:

In diseases of the genitourinary tract, oxalic acid combines with calcium [10], forming rectangular gray crystals. As the crystals pass through the urinary tract, they injure the mucous membrane and turn black. Such crystals are called oxalates, and the disease is called oxalaturia. In other words, the presence of oxalic acid salts in the urine. In addition, you should reduce the consumption of foods containing oxalic acid for gout [11].

Digestibility of oxalic acid

Oxalic acid is absorbed relatively well. However, since it is also a product of exchange, it has the ability to excrete surpluses. At the same time, in adults it is excreted in the amount of 20 mg per day. As for children, the normal excretion rate for them is 0.96-1.29 mg of acid per day. Excretion occurs in the urine.

Beneficial properties of oxalic acid and its effect on the body:

Oxalic acid has a beneficial effect on the gastrointestinal tract. Helps with runny nose and sinusitis [12]. Able to have a healing effect in painful and heavy menstruation, atypical menopause. In addition, the acid included in the products prevents the development of pathogenic organisms such as cholera, typhoid fever, salmonellosis, chlamydia and other pathogens.

Interaction with other elements

Oxalic acid is a product of protein metabolism. It is highly soluble in water [13]. Combines with vitamin C [14]. It interacts with calcium, forming insoluble calcium oxalate. In addition, oxalic acid ions have the ability to interact with magnesium [15].

Signs of excess oxalic acid:

- urolithiasis, the diagnosis of which revealed the presence of calcium oxalates;
- gouty changes in osteochondral tissue.

Signs of oxalic acid deficiency:

Currently, according to research from the Chicago Institute of Nutrition and Health, no such signs have been found.

Oxalic acid – a component of beauty and health

Since a person consumes oxalic acid along with accompanying proteins and vitamins, it is not only an accompanying component for them, but also a solvent, providing them with access to all cells of our body. And since health and beauty can only exist when there is adequate nutrition, oxalic acid provides transport services for vitamins and minerals.

Despite the fact that oxalic acid is an aggressive acid, its correct use will never cause you harm. For example, the famous American doctor N. Walker advised using oxalic acid (part of oxalic juice) to restore normal intestinal motility.

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