

# Hawthorn juice: benefits and harms of the drink for the body, recommendations for use

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**Abstract.** Hawthorn, popularly called "boyarka" or "lady", as well as "thorn" for its prickly branches, is an excellent honey plant, as well as one of the most useful plants. Flowers, bark and, of course, the fruits of the bush are widely used in folk medicine. Decoctions, tinctures, teas are prepared from red sweet and sour berries, and tasty and healing fresh fruit is also squeezed out, which helps get rid of many health problems.

Key words: hawthorn, hawthorn juice, beneficial properties, contraindications, composition, calorie content

### Composition and calorie content

Hawthorn berries are low in calories - 100 grams of pulp contain 52 kcal. They contain no fat, little protein (0.8%) and a small amount of carbohydrates (14%). But there are plenty of vitamins and useful microelements.

In particular, hawthorn juice is a rich source of the following nutrients:

• Vitamin C. There is almost 3 times more ascorbic acid in hawthorn berries than in lemon! [1] Ascorbic acid improves the body's production of its own collagen, which has a positive effect on the health of cartilage and muscles, as well as the beauty of the skin, increases immunity and resistance to viruses and microbes [2], prevents the development of scurvy, helps reduce the risk of periodontal disease [3] and even helps fight cancer.

- Beta carotene. The yellow-orange plant pigment saturates the body with vitamin A, known for its high antioxidant properties, prevents skin aging, accelerates its regeneration in case of damage, improves vision, and reduces the risk of osteoporosis [4] and coronary heart disease. [5]
- Potassium. The element regulates the water-salt balance in the body, maintains kidney health [6]
  , improves muscle function, including the heart, stabilizes heart rhythm, and regulates blood
  pressure. [7]
- Iron. The trace element is an integral part of hemoglobin it prevents the development of iron deficiency anemia [8], maintains the immune system in tone, and helps the body fight infections.
- Molybdenum. The trace element normalizes sexual function and prevents the development of impotence, helps to avoid motor nervous disorders <sup>[9]</sup>, promotes fluoride retention and strengthens tooth enamel. <sup>[10]</sup>

Hawthorn juice also contains fiber and sorbitol - they activate the flow of bile, improve the functioning of the gastrointestinal tract, provide a natural laxative effect and can be used as a substitute for pharmaceutical drugs against constipation <sup>[11]</sup>. Interestingly, the laxative effect of sorbitol is observed only in patients with normal and low stomach acidity. In people with high acidity, only a choleretic effect is observed.

Saturated with hawthorn berries and tannins, which give the juice a slight astringent effect. Prefreezing the fruits or picking them after the first frost helps to get rid of astringency.

#### Top 9 beneficial properties of hawthorn juice

## 1. Improves heart function

Systematic consumption of the drink has a positive effect on the functioning of the cardiovascular system: it increases blood supply to the coronary arteries of the heart and blood vessels of the brain, normalizes blood pressure, and reduces symptoms of mild to moderate heart failure. [12]

#### 2. Has hepatoprotective properties

Research shows that hawthorn juice has a positive effect not only on the cardiovascular system, but also on the liver - it helps reduce the accumulation of lipids, reduces the manifestation of fibrosis and inflammation, prevents the development of oncological processes, and is successfully used for the treatment of toxic hepatitis, non-alcoholic fatty liver disease, hepatocellular carcinomas. <sup>[13]</sup>

## 3. Reduces "bad" cholesterol levels

The high content of flavonoids and pectins in the juice helps normalize cholesterol in the blood, which helps avoid the risk of blockage of blood vessels, the development of atherosclerosis, and, as a consequence, the occurrence of such dangerous diseases as stroke and heart attack. [14]

### 4. Normalizes digestion

Hawthorn juice contains fiber and sorbitol. They improve the flow of bile and speed up the passage of products through the intestinal tract. The berries also contain compounds that enhance the production of digestive enzymes necessary for digesting fatty and protein-rich foods. It has been proven that

drinking juice squeezed from hawthorn fruits improves gastrointestinal motility and improves digestion processes. <sup>[15]</sup>

## 5. Prolongs youthful skin

Hawthorn juice, rich in polyphenols, has an antioxidant and anti-inflammatory effect on the body, including the epidermis - protects the skin from the harmful effects of ultraviolet radiation, promotes accelerated tissue regeneration in case of damage, restores youth and elasticity of the skin. <sup>[16]</sup> Masks with hawthorn juice well moisturize and rejuvenate the skin, smooth out fine wrinkles and creases.

### 6. Has a calming effect

Scientists note that fresh hawthorn fruit is indispensable for stress. No worse than pharmaceutical drugs, it calms the nervous system, reduces heart rate, and helps get rid of the effects of stress, insomnia and depression. [17]

## 7. Promotes weight loss

Hawthorn berries contain chlorogenic acid <sup>[18]</sup>, which prevents the formation of fat cells. It is a proven fact that drinking hawthorn juice helps speed up metabolism - reduces the risks of obesity and diabetes, and accelerates weight loss processes. <sup>[19]</sup>

#### 8. Helps reduce complications from COVID-19

Even a mild course of coronavirus affects neurology - many patients who have suffered from the disease experience complications such as depression, anxiety, which negatively affects respiratory function and heart function and can even lead to the development of dementia. Research shows that the use of herbal medicine, in particular the introduction of hawthorn juice, rich in beneficial compounds, into the diet helps reduce neurological, cardiovascular, and respiratory complications of COVID-19.

#### 9. Has an antibacterial effect

It has been proven that juice squeezed from hawthorn fruits has a high antibacterial effect - it suppresses the development of various bacilli and bacteria, including microorganisms dangerous to humans such as E. coli, diphtheria corynebacterium, streptococcal infection, etc. [21]

### Contraindications and features of drinking hawthorn juice

Despite its numerous beneficial properties, hawthorn juice has a number of contraindications. As a rule, the drink can harm the body, excessively reduce the heart rate or lead to other heart problems if consumed in too large portions. Therefore, exceeding the recommended dose (25 ml of fresh juice twice a day half an hour before meals) is not recommended.

Also, fresh hawthorn should be tasted with caution by people suffering from food allergies. True, in the course of numerous medical experiments, scientists came to the conclusion that the toxicity of this plant and its fruits is insignificant <sup>[22]</sup>. But still, when you first get acquainted with berries or the juice obtained from them, it is recommended to be careful - monitor the body's reaction (it can manifest itself in the form of a rash and itching) in order to take timely measures to neutralize the consequences.

Hawthorn juice should be excluded from the diet of children under 12 years of age, women during pregnancy and breastfeeding, as well as hypotensive patients.

**Note!** Hawthorn juice enhances the effect of medications, in particular, drugs for thinning blood, lowering blood pressure, etc. Therefore, using them together with pharmaceutical drugs is not recommended.

#### How to prepare and store hawthorn juice: basic recommendations

To prepare juice, you should select whole ripe fruits of bright orange or red color without signs of spoilage or rot. Before processing, the berries must be thoroughly washed, filled with clean water (100 ml of liquid per half kilogram of fruit) and boiled for several minutes until softened, and then rubbed through a sieve. It is recommended to drink the resulting fresh juice before meals twice a day (morning and evening), starting with a dose of a tablespoon and gradually increasing it to 25 ml.

For long-term storage, it is recommended to freeze or preserve the juice.

#### **Expert commentary**

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Hawthorn juice has long been known for its excellent cardiological properties. But, as practice shows, it also copes well with other problems of the body: it helps to start metabolism and normalize digestive processes, reduce cholesterol levels and improve the liver, and get rid of complex bacterial infections. Supplement your family's diet with this delicious natural supplement and see for yourself its benefits and effectiveness!

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