

# Lingonberry juice is a natural cure for many diseases

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**Abstract.** Lingonberry, popularly called the berry of immortality for its numerous beneficial properties, is widely used both in cooking and in folk medicine. Lingonberry fruits are used to prepare a variety of jams, marmalades, and pie fillings. Sweet and sour fresh juice is also squeezed out of them, which is not only a delicious dessert, but also an effective medicine for many diseases. And you can make lingonberry juice yourself in your own kitchen.

*Key words:* lingonberry, lingonberry juice , beneficial properties, contraindications, composition, calorie content

#### Composition and calorie content

Lingonberries belong to the category of low-calorie products - 100 grams of berry pulp contains only 43 kcal. It contains a minimum of fats and proteins (0.5% and 0.7%) and very few carbohydrates - about 10%. The glycemic index of lingonberries is also quite low (25 units), which allows the consumption of berries and products derived from them, including freshly squeezed juice, even for people with diabetes or on a strict diet.

Lingonberry juice is a rich source of various vitamins, microelements and unique amino acids. Here are just some of the nutrients it contains:

• Potassium. Regulates water balance in the body, helps normalize blood pressure <sup>[1]</sup> and kidney function, and reduces the intensity of allergic manifestations.

- Calcium. Maintains healthy teeth and bones, prevents the development of osteoporosis and reduces the risk of fractures in middle-aged and older people <sup>[2]</sup>, participates in the processes of muscle tissue contraction and eliminates cramps.
- Magnesium. Normalizes heart rate and lowers blood pressure, reduces pain in the joints and eliminates cramps, when paired with calcium, it increases bone density and accelerates tissue regeneration. A lack of a chemical element in the body can lead to the development of a number of chronic diseases: Alzheimer's disease, migraines, as well as cerebrovascular accidents, which carries a risk of stroke. <sup>[3]</sup>
- Vitamin C. Ascorbic acid strengthens the immune system <sup>[4]</sup>, participates in collagen synthesis <sup>[5]</sup>, prevents the development of scurvy <sup>[6]</sup>, and is successfully used in oncology therapy. <sup>[7]</sup>

Also, the pulp of lingonberries contains many organic acids: citric, salicylic, malic, etc. Benzoic acid is especially valuable <sup>[8]</sup> (the amount depends on the degree of ripeness of the fruit) - its unique feature is that it blocks the growth of mold and various bacteria, which explains its long-term preservation freshness of berries.

## Top 15 beneficial properties of lingonberry juice

## 1. Is the strongest antioxidant

Lingonberries belong to the category of superfoods and have long been highly valued in folk medicine due to the richest antioxidant content among berries. <sup>[9]</sup> Do you want to slow down the aging process and boost your immunity? Include delicious and very healthy lingonberry juice in your diet!

## 2. Has a powerful anti-cancer effect

Research shows that lingonberries, rich in polyphenols, inhibit the growth of cancer cells and have antitumor properties. <sup>[10]</sup>

#### 3. Improves lipid metabolism in the liver

The anthocyanin-rich berries of lingonberries have lipid-lowering properties and help prevent the development of non-alcoholic fatty liver disease, a disease that can subsequently transform into fibrosis and then cirrhosis. <sup>[eleven]</sup>

#### 4. Has antiviral and antimicrobial properties

It has been proven that lingonberry polyphenols reduce the viral and microbial load in the oral cavity, which, in turn, has a positive effect on the condition of the respiratory tract. Lingonberry juice also helps the body recover after Covid. <sup>[12]</sup>

#### 5. Protects against cardiovascular disease

Lingonberries contain a large amount of anthocyanins and other polyphenols - freshly squeezed lingonberry juice protects myocardial tissue from ischemia-reperfusion injury, reducing the risk of cardiovascular disease and mortality <sup>[13]</sup>, and also has the ability to lower blood pressure.

#### 6. Successfully fights oral diseases

Research shows that lingonberries are one of the most effective remedies in the fight against bacteria that cause tooth decay and candidiasis. <sup>[14]</sup> The effect of lingonberry juice on the oral cavity for 30 seconds every day for six months has very positive results - the inflammatory processes of the oral mucosa and periodontitis tissues are reduced. <sup>[15]</sup>

#### 7. Reduces symptoms of xerostomia

About 20% of older people complain of dry mouth and xerostomia caused by decreased function of the salivary glands. Research shows that gargling with lingonberry juice for 30 seconds daily for 6 months increases salivary flow and relieves symptoms of dry mouth. <sup>[16]</sup>

#### 8. Prevents urinary tract infections

Lingonberry juice, especially when mixed with cranberry juice, changes the composition of the urine microbiome, which shows good results in the fight against urinary tract infections <sup>[17]</sup> and cystitis.

#### 9. Improves skin condition

A drink rich in vitamin C stimulates the tissues to launch their own collagen and has a healing and rejuvenating effect on the skin. With daily consumption of 50 ml of lingonberry juice for 12 weeks, the epidermis is dramatically transformed - it becomes smoother, firmer and more elastic. <sup>[18]</sup>

#### 10. Restores kidney function

Anthocyanins contained in lingonberry pulp have a powerful anti-inflammatory effect. Scientific research shows that daily consumption of lingonberry juice effectively protects the kidneys from acute damage caused by ischemia-reperfusion injury, <sup>[19]</sup> and also prevents the development of chronic diseases of the organ due to consumption of high-fat diets. <sup>[20]</sup>

#### 11. Has antidiabetic activity

Lingonberries are widely known in folk medicine for their antidiabetic properties, which is confirmed by numerous scientific studies. Daily supplementation of lingonberry juice for 8 weeks in patients suffering from type 2 diabetes has shown excellent results in reducing blood glucose. <sup>[21]</sup>

#### **12. Improves cognitive function**

Research confirms that systematic consumption of lingonberry juice has a positive effect on memory and cognitive abilities, depressed by stress, due to increased antioxidant abilities of tissues. <sup>[22]</sup>

#### 13. Protects against radiation damage

Standard anti-radiation drugs have a number of serious side effects. It has been proven that natural lingonberry juice, rich in anthocyanins, is no less effective against immunosuppression caused by radiation, but does not cause additional harm to the human body. <sup>[23]</sup>

#### 14. Improves vision

In the course of scientific experiments, scientists have found that lingonberry juice is also effective in eliminating ophthalmological problems - when consumed systematically, it protects the retina from damage by ultraviolet radiation. <sup>[24]</sup>

### 15. Counteracts obesity

Obesity is becoming one of the main problems of humanity. And, as research shows, it is berries, including lingonberries, that are one of the most effective means for combating excess weight and obesity. They perfectly suppress appetite, reduce the synthesis and storage of lipids, modulate and heal the intestinal microbiota. <sup>[25]</sup>

## Contraindications and features of consuming lingonberry juice

Despite the enormous benefits for the body, lingonberry juice also has a number of contraindications. In particular, it is not recommended for hypotensive people or people with low blood pressure. Also, experts do not advise exceeding the recommended dose, since excess benzoic acid can cause intoxication of the body.

Lingonberries belong to the category of low-allergenic berries, but even to them an unexpected reaction of the body may occur. <sup>[26]</sup> Therefore, for the first time, you should start trying lingonberry fruits or juice with minimal doses, a few berries or a few drops of juice, gradually increasing the amount to the recommended amount - 50-70 ml per day for children under 12 years of age, 250 ml for adults.

It is recommended to drink lingonberry juice between meals so that it brings maximum benefits to the body.

#### Recommendations for preparing and storing lingonberry juice

Juice is prepared from lingonberries using a juicer or juicer. The remaining cake after squeezing can be filled with a small amount of water and pressed again through a sieve.

The drink can be consumed immediately or stored for future use. For long-term storage, it is recommended to use the option of freezing or preservation by pre-pasteurization.

#### **Expert commentary**

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Lingonberry juice is a unique drink that is not only a delicious dessert, but also a very effective natural medicine. Systematic consumption of fresh lingonberries helps to lose weight and improve skin condition, get rid of cystitis and diabetes, prevent the development of caries, improve vision and cognitive functions. Add this healthy drink to your diet to see its benefits and effectiveness from your own experience!

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