

# Lime juice is a unique drink of health and longevity

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**Abstract.** A miniature relative of the lemon with a showy green skin, it is often mentioned in various recipes and used in the preparation of a variety of dishes. Lime pulp has an original refreshing taste, contains many vitamins and minerals. You can prepare delicious and extremely healthy lime juice for the body yourself.

Key words: lime, lime juice, useful properties, contraindications, composition, calorie content

#### **Composition and calories**

Natural lime juice contains over 90% water and is low in calories (25 kcal per 100 grams of product). It has a minimum of fats, proteins and carbohydrates (0.07%, 0.42%, 8.42%) [1], which allows it to be included in a variety of unloading diets and menus for people who follow a healthy lifestyle.

Citrus juice is a source of various vitamins and nutrients:

- Vitamin C (30 mg). Ascorbic acid is a natural antioxidant. It increases the body's immunity, participates in the synthesis of natural collagen and even helps in the fight against cancer. [2]
- Potassium (117 mg). Normalizes the functioning of the nervous system and digestive tract, stabilizes blood pressure [3], relieves muscle spasm and convulsions.
- Phosphorus (14 mg). Accelerates metabolism, helps to fully absorb all vitamins and minerals, strengthens bone tissue. [four]
- Magnesium (8 mg). Also, interacting in combination with calcium, it promotes bone density, stabilizes heart rate and blood pressure. [five]

• Niacin (vitamin B3) - 0.142 mg. It dilates blood vessels and regulates the level of cholesterol in the blood <sup>[6]</sup>, accelerates metabolism <sup>[7]</sup>, improves tissue healing.

Lime and lemon are the leaders in the content of citric acid (in grapefruit and orange juice it contains much less). [8] This substance is very useful for the body - it helps to remove toxins, improves immunity, and helps better absorption of calcium.

Also, lime juice contains many useful substances, in particular, flavonoids and coumarins. <sup>[9]</sup> The compounds have antioxidant and anticoagulant properties, reduce blood clotting and prevent the formation of blood clots, improve metabolic processes in the body.

#### **Top 10 Health Benefits of Lime Juice**

#### 1. Improves calcium absorption

It is a proven fact that drinking lime juice along with foods containing calcium promotes better absorption of the mineral <sup>[10]</sup>, which strengthens bones and teeth. Prevent the development of osteoporosis by introducing healthy lime juice into your daily diet!

#### 2. Helps Treat Malaria

Studies conducted in one of the hospitals in Nigeria proved that lime juice, used in complex therapy in the treatment of patients with malaria, significantly increases the properties of the drugs used and contributes to a faster cure for patients. When lime juice is included in the diet of patients, complete elimination of malaria parasites occurs within 3 days! [11], [12]

#### 3. Regulates the menstrual cycle

The systematic use of lime juice helps to reduce pain and discomfort during menstruation and can even delay ovulation and the onset of menstruation. [13]

#### 4. Prevents the development of atherosclerosis

Daily consumption of lime juice will help clear blood vessels from clogging cholesterol plaques and avoid such dangerous diseases as myocardial infarction, coronary heart disease, etc. [fourteen]

#### 5. Disinfects water

Studies have shown that adding lime juice to well or tap water, as well as food samples, kills the cholera virus. <sup>[15], [16]</sup>. Going on a hike, be sure to take a few fruits of this healthy citrus fruit with you!

# 6. Helps fight cancer

Flavonoid-rich lime juice inhibits the growth and development of cancer cells. <sup>[17], [18]</sup> For the prevention of oncological diseases, doctors recommend including a healthy drink with the addition of fragrant lime juice in the daily diet.

#### 7. Beneficial effect on potency

Studies show that the natural product, lime juice, is an excellent analogue of Viagra - it increases potency and libido. <sup>[19]</sup> Why take risks and poison the body with unsafe chemicals, if you can get confidence in male strength with the help of delicious and absolutely harmless lime fresh!

#### 8. Has Antioxidant Properties

Lime peel and fresh juice are high in flavonoids, plant <u>antioxidants</u>. [20] Protect cells from oxidation and premature aging, increase the protective functions of the body.

#### 9. Protects against scurvy

Due to the high content of vitamin C in the pulp of the fruit, lime juice is recommended as an effective prophylactic drug for the treatment and prevention of scurvy. [21]

# 10. Effective in the treatment of dysentery

Lime juice has powerful antimicrobial properties - it shows excellent results in the treatment of such an unsafe disease for the body as dysentery. [22]

Lime juice is often used in cooking. It has a preservative effect. When an acidic liquid is added to the dough, the shelf life of the finished bread is significantly increased (mold does not appear in it for a long time). <sup>[23]</sup> Citrus fresh is often used as a marinade for meat - it contributes to the quality softening of muscle fibers. <sup>[24]</sup> Would you like to enjoy a tender shish kebab? Pre-marinate the meat in freshly squeezed lime juice!

## Contraindications and possible harm of lime juice

Lime juice contains unique heterocyclic compounds, furocoumarins, which, when in contact with the skin, make it extremely sensitive to ultraviolet light. In some people, exposure to sunlight on the skin, previously treated with lime juice, can lead to phytodermatitis - irritation and inflammation of the dermis. <sup>[25], [26]</sup> To avoid such unpleasant consequences, make sure that the juice of the fruit does not get on the skin, wash your hands thoroughly after contact with citrus.

Also, when drinking lime juice in pure or diluted form, you need to take extra care of dental hygiene rinse them with clean water after contact with the liquid. Since the acid contained in fresh juice provokes erosion of tooth enamel, which can lead to caries. [27]

# Rules for drinking lime juice

It is recommended to eat fresh only squeezed fresh juice. The liquid, subjected to heat treatment, changes its color and loses most of the vitamins and nutrients. [28]

Due to the high concentration of acid, drinking lime juice in its pure form is not recommended. It must be diluted with water, added to other juices and drinks (compotes, teas, cocktails, etc.).

# Tips for making and storing lime juice

To prepare juice, you need to select whole fruits with a shiny skin. In order to extract the maximum juice from the pulp, it is recommended to pour hot water over the fruit before processing, and then roll it on a hard surface, pressing it with the palm of your hand with force. Thus, the membranes containing the juice are destroyed and the liquid is more easily and fully squeezed out of the pulp. You can squeeze the juice from the fruit with your hands or with a special citrus juicer.

It is advisable to use the resulting fresh immediately. If too much liquid is squeezed out, pour it into a glass resealable container and store in the refrigerator (but not longer than a few days).

#### **Expert comment**

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Lime juice is an extremely healthy drink rich in numerous trace elements. With it, you can increase immunity, saturate the body with essential vitamins, get rid of many diseases and health problems. Convince yourself of this by introducing this fragrant and healthy fresh juice into your family's diet!

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**Abstract.** The article discusses the main properties of lime juice and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. The

chemical composition and nutritional value of the drink are indicated, the use of lime juice in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of lime juice on the human body under certain medical conditions and diseases are analyzed separately.