



Mint (Latin: *Méntha*)

Eliseeva Tatyana, Chief editor of the project EdaPlus.info

Tkacheva Natalia, phytotherapist, nutritionist

Email: eliseeva.t@edaplus.info, tkacheva.n@edaplus.info

Abstract. The article discusses the main properties of mint 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 leaves are indicated, the use of mint in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of mint on the human body under certain medical conditions and diseases are analyzed separately. The scientific foundations of diets with its application are considered.

Key words: mint, beneficial properties, potentially dangerous effects, side effects, beneficial properties, contraindications, diets

Useful properties of mint

Table 1. Chemical composition of mint leaves (according to [Food+](#)).

Basic substances	100 grams of fresh mint contains: ^[6] :
Water	78.65 g
Carbohydrates	14.89 g
Alimentary fiber	8 g
Squirrels	3.75 g
Fats	0.94
calories	45 kcal
Minerals	
Potassium	569 mg
Calcium	243 mg
Magnesium	80 mg
Phosphorus	73 mg
Sodium	31 mg
Iron	5.08 mg
Zinc	1.11 mg

vitamins	
Vitamin C	31.8 mg
Niacin	1.706 mg
Riboflavin	0.266 mg
Vitamin A	0.212 mg
folate	0.114 mg
Vitamin B-6	0.129 mg
Thiamine	0.082 mg

What exactly is used and in what form?

For the manufacture of medicines, grass and **mint leaves are used** . Raw materials in the form of dried or fresh herbs are a source of valuable essential oil. On the basis of mint leaves, decoctions, tinctures, teas are prepared.

The leaves and inflorescences of mint contain an essential oil, the amount of which is determined by the general conditions of plant growth, the variety of mint and the time of collection of raw materials. Peppermint **essential oil has been widely used: in medical practice, in the food industry**. This is a natural flavor , indispensable in alcoholic beverages, confectionery. **Menthol** , which is obtained from essential oil, is a component of medicines with a disinfectant and anti-inflammatory effect. **Mint tincture** and mint leaves (as part of herbal teas) are used to improve the functioning of the digestive system, as a choleric and antispasmodic. **Peppermint oil** is useful for inhalation. **Mint water** is good for rinsing, it is part of mixtures. Small children are bathed in baths with mint for allergic rashes, scrofula, rickets, intestinal colic. Menthol alcohol is used to treat neuroderma . Fresh flowering mint is used in homeopathy. ^[5]

Medicinal properties

Peppermint leaves are rich in volatile oils (among them menthol, limonene , deopentene , menthon), they also contain triterpene compounds (various acids), mineral salts, tannins and enzymes. The largest amount of essential oil is found in the flower part of mint, much less in the leaf part, and very little in the stems.

Long-leaved mint leaves contain several types of organic acids (malic, citric and succinic) and vitamin C. **Curly mint** contains carotene, vitamin P, ascorbic acid and phytoncides. ^[7]

The therapeutic effect of mint is explained by a combination of substances of primary biological effects, among which menthol, which belongs to the terpene group, occupies a central place. Menthol exhibits anesthetic and antiseptic properties characteristic of this group ^[8]

In official medicine

In official medicine, drugs are widely used:

- **peppermint leaves** , packaged mono collection ;
- **peppermint tincture** . Tincture in the amount of 10 drops is prescribed to improve the functioning of the digestive tract, as well as a diuretic and to eliminate nausea. The tincture expels bile. For the purpose of disinfection, it is used for purulent bronchitis, bronchiectasis. It acts as a vasodilator in angina pectoris. Lowers blood pressure, provided that it is taken simultaneously with vinca-based drugs;
- **mint oil** . Has found application as a disinfectant and flavor enhancer;

- **boromenthol** ointment. An excellent antiseptic and antispasmodic, externally used to treat the nasal mucosa in case of general respiratory diseases, to relieve skin itching and irritation;
- **menovazin** , which includes ethyl alcohol, menthol, novocaine, anestezin. Rubbed into the skin with dermatosis, myalgia and neuralgia. The drug should be used with caution: if the dose is exceeded, weakness, dizziness, hypotension may occur.
- **validol** - a solution of menthol in menthol ester of isovaleric acid. It is used for angina pectoris, hysterical and neurotic diseases, and also as an antiemetic for motion sickness and disorder of the vestibular apparatus;
- **pectusin** , which contains menthol, eucalyptus oil, sugar and talc. Assign one tablet under the tongue for inflammatory processes of the upper respiratory tract;
- **drops "Eucatul"** (menthol, eucalyptus tincture, ethyl alcohol). For diseases of the upper respiratory tract, it is recommended to gargle (up to 10 drops per 200 ml of boiled water);
- **olimetin capsules** (peppermint oil, purified turpentine oil, calamus rhizome oil, olive oil, purified sulfur). Used to eliminate stones in the urinary and gallbladder (2 capsules 3-5 times a day after meals);
- **candles "Anestezol"** , which include menthol. Used to treat hemorrhoids;
- **tooth drops** ;
- **mint water** . It is used as a flavoring additive and for rinsing the mouth. [7]

In folk medicine

Mint is used in folk medicine as a powerful antiseptic and pain reliever. With a sore throat or toothache, rinsing with a concentrated decoction of mint is indicated. The herb is useful for stomach cramps. Provides relief from coughs. For anemia, raw mint leaves are used. Longleaf mint is also used for neurological problems. Patients with hysteria, neurological problems and aggressive behavior are prescribed a course of therapeutic baths.

Mint leaves are used to prepare a decoction: in two cups of boiling water, brew a tablespoon of leaves, let it brew for 10 minutes. They drink such a decoction with weak fermentation, nausea in expectant mothers. Outwardly, a decoction helps with an itchy rash. He is credited with a steroid effect.

A decoction of mint for gastritis or decreased appetite. Brew 2 teaspoons of dry raw materials in a glass of boiling water. Leave the broth for about 30 minutes, strain. Take 60 ml of the resulting liquid before each morning and evening meal.

Peppermint tea for ARVI, acute respiratory infections, colds, bronchitis and tonsillitis. Pour a tablespoon of mint leaves with a small amount of boiling water, use later as a regular tea brew. Such tea with honey and lemon is useful.

Peppermint oil is great for inhalation for upper respiratory tract infections.

Mint lotions help with fungal infections of the nails. Grind mint leaves and stems to a mushy state and pour boiling water over them. The resulting mass is wrapped in a thin cloth or gauze and applied to areas of the skin where the fungus appears. After 5 minutes, rinse the affected area and pat dry with a clean towel. Repeat the procedure up to 2 times a day.

Mint tincture for migraine. A teaspoon of mint raw materials is infused with alcohol (70%) in the amount of 20 teaspoons. The tincture is prepared for a week. Take 15 drops per 200 ml of drinking water daily.

Peppermint tincture helps with heartburn: two tablespoons per half liter of boiling water. Take a quarter cup up to 4 times a day.

is used externally **to treat wounds and erosion of the cervix** . To prepare the oil, a 10% tincture of mint leaves is mixed in equal proportions with Provence or sunflower oil and the alcohol is evaporated in a water bath.

To prepare a **bath with a therapeutic effect** , use 50 g of mint leaves per one bucket of water.

Lotions with mint decoction are recommended to relieve fatigue, redness and irritation in the eyes. 2 tablespoons of mint leaves are poured into 1/2 liter of hot water. Boil over low heat for about 10 minutes. Strain the cooled broth, apply cotton pads soaked in the broth to the eyelids for 1-2 minutes, repeating the procedure up to 4 times a day.

Mint steam baths : steaming the skin of the face over mint decoction reduces the amount of inflammation, has excellent antiseptic properties. ^[9]

in oriental medicine

Chinese and Japanese healers have long used mint to treat migraines, digestive ailments, and stop internal bleeding. Avicenna's treatises mention the so-called "*pulegic*" mint. Avicenna described its vasodilating effects and gave recipes containing mint to get rid of kidney stones.

In scientific research

In ancient times, Avicenna described the types of mint known to him and recorded the recipes that existed at that time. In early Europe, interest in the plant was maintained at the state level: by decree of Charlemagne in 812, the population was obliged to grow 4 types of mint in their gardens. Carl Linnaeus made his contribution to the development of research on the species diversity of mint: it was he who in 1753 defined a new hybrid (originated from water mint and spearmint, garden) - *peppermint* .

Modern scientists are increasing the body of knowledge about the numerous healing properties of mint. The antibacterial and antioxidant effects of peppermint are reviewed (R. Singh, M. Shushni , A. Belheir). ^[ten]

The object of the study is the biologically active characteristics of peppermint herbal tea (D. McKay), J. Bloomberg). ^[eleven]

A group of researchers led by P. Mikaili focus their scientific interest on the pharmacological and therapeutic properties of long *-leaved mint* , and its main component - menthol. ^[12]

Turkish scientists are analyzing the agronomic and chemical characteristics of spearmint, which grows in Turkey. ^[13]

In the domestic scientific paradigm , E. L. Malankina classifies and describes mint varieties. ^[fourteen]

Neugeboyrova is engaged in species and hybrid diversity of mint Yarmila . ^[fifteen]

Weight regulation

American researchers point to the choleric properties of mint, and explain the effectiveness of diets with the inclusion of mint tea by improving the outflow of bile, which accelerates fat breakdown. The expediency of mint aromatherapy for appetite suppression has been experimentally proven. Subjects who inhaled the **scent of mint** experienced less hunger and were satisfied with a reduced amount of calories.

In cooking

Mint is a real find when you need to diversify a simple dish by adding a spicy touch. A couple of leaves of dried or fresh herbs will significantly change the taste of soup or salad. Meat dishes and pastries also go well with mint splashes. This spice is valued by oriental cooks. **Recipes for dishes with mint** are so diverse that they can make up a separate cookbook, so the question “ **What to cook with mint** ” is just a matter of taste. Mint is one of the essential ingredients of the legendary *mojito drink* .

mojito recipe :

You will need 40 ml of white rum, 6 peppermint leaves, 30 ml of lime juice, 10 g of light cane sugar, half a glass of crushed ice and 0.25 liters of soda. Grind mint leaves with lime juice and granulated sugar, fill the glass with crushed ice, mix with mint mass and pour in rum and soda ^[16]

Incredibly delicious and non-alcoholic **mint drinks** :

Moroccan mint tea

To prepare, take 2-4 mint stalks with leaves, a quarter cup of granulated sugar, 2 incomplete tablespoons of green tea, 150 ml of water. Separate the leaves from the stems, throw in a teapot, add sugar, brew in 50 ml of boiling water. Prepare green tea in another teapot, brewing with the remaining boiling water. Insist 3 minutes. Strain tea and mint leaves from two teapots and pour into one container. Arrange in cups on a mint stalk and pour the finished tea. Serve with crushed sugar.

mint julep

Take a handful of mint raw materials, 1 lemon or lime and a liter of sparkling water. Wash mint leaves and chop. Then puree in a blender with 100 ml of water. Combine the pureed mass with the juice of one lemon or lime, pour over with soda and strain. Serve julep in glasses garnished with mint leaves and lemon wedges.

A pastry chef who wants to make a mint dessert also has plenty to choose from.

Recipe for mint biscuits (cooking of France):

It will take 80 g of butter and sugar, 160 g of flour, 20 g of fresh mint leaves, an egg - 1 piece.

Grind granulated sugar with mint leaves. Combine the resulting mixture with softened butter and knead. Pour flour, add egg. Blind small balls, and form them with your fingers into small cakes. Bake for about 20 minutes at 175 degrees, until golden brown. Store cookies in a tightly closed jar ^[17]

For the preparation of refreshing drinks , **mint ice is useful** : mint leaves, arranged in molds, pour boiled water and send to the freezer.

Mint sauce pairs harmoniously with lamb and pork dishes, and meat prepared for cooking in a mint marinade will satisfy the most demanding gourmets.

In cosmetology

Mint in cosmetology has justified itself as a valuable and multifunctional plant. Mint has a beneficial effect on the skin, hair, moisturizes, nourishes and heals. This herb is included in both professional skin care cosmetics and a variety of home cosmetics. Mint is used in masks for skin, hair, lotions, tonics, compresses, and lotions are created on its basis. Shampoos and hair rinses based on mint extract help with seborrhea.

In perfumery

In Greek culture, mint was credited with aphrodisiac properties . Wreaths were woven from it, added to the water for ablutions and used when cleaning the premises. Today , this plant is used in perfumery. Peppermint-based aromatic oils are useful in healing migraines and in combating unpleasant odors. Well-known brands have created perfumes and eau de toilette based on mint notes. Popular **mint perfumes** : *Acqua di Gioia* by Giorgio Armani, *Aqua Allegoria Herba Fresca* by Guerlain .

Other uses

Mint is a kind of natural fumigator. Insect pests do not tolerate the smell of this plant. If you plant a mint area around the house, you can forget about cockroaches, flies and moths for a long time.

Dangerous properties of mint and contraindications

In case of hypersensitivity to menthol, you can not use toothpaste, cream that contain it, as this can cause urticaria, skin redness, headache. **Peppermint oil** should also be used very carefully to treat the skin of babies. In large doses, peppermint oil can cause vomiting, ataxia, and sometimes, due to its action on the central nervous system, acceleration of the respiratory rate, convulsions and even death from paralysis of the respiratory center ^[7]

Apart from allergies and infants, mint is not recommended in any form for children under 3 years of age, pregnant women and those who drive, as this plant causes drowsiness. Medical consultation is necessary in each of the cases of possible treatment with mint preparations. You should not buy dried or freshly picked grass at market points or in the transition. The origin of such raw materials may be associated with unsuitable environmental conditions, the grass could be collected near the roadway. In this case, mint will be a receptacle for toxins that are dangerous to human health.

The use of mint in any form should be discarded if the patient is simultaneously taking:

- preparations containing iron;
- cyclosporine ;
- any of the antibiotics or antifungal agent;
- anticonvulsants;
- drugs to lower blood pressure, any drug for "cores" ^[18]

Botanical description

This is a perennial ether-bearing herb from the *Lamiaceae family* (*Lamiaceae*).

origin of name

The name of the plant is borrowed from Greek and Roman mythologies. The Latin word " **Mentha** " was the name of the nymph Menta (in the Greek version - Minta), turned by the jealous wife of the ruler of the underworld into fragrant, fragrant grass.

Kinds

The generic system of the plant has 42 species and many hybrids. The most famous and used in various fields are the following **types of mint and its hybrids**:

- **Peppermint** is a hybrid of two wild species (garden mint and water mint). The melliferous properties of this variety of mint are highly valued by modern beekeepers;

- **Mint long-leaved** - grows in Europe, Asia, on the African continent. The spicy taste has contributed to the fact that this species has taken pride of place among the spices of world cuisine;
- **Water mint** - grows on moist soil, near a water source. This type of mint has taken root in Europe, but is also found in African and Asian countries;
- **Fragrant mint** - common in the Mediterranean, Asia Minor region, Europe. Used in cooking and medicine;
- **Field mint** - grows in Europe, Asia, the Caucasus, India and Nepal. Component of many herbal teas ;
- **Apple mint** - from Asia Minor countries and Egypt spread to the Transcaucasus and took root in southern Europe. Has found wide application in the confectionery business;
- **Japanese mint** is a rather rare species, a representative of the flora of the Japanese islands. Used in the cosmetic industry;
- **Swamp mint (or fleabane)** - grows in northern Africa, eastern Asia, common in Europe, in the Caucasus mountains;
- **Curly mint** - grows in the North of America, in some Western European and Southern European countries. ^[one]

The rhizome of the plant is branched, creeping, gives numerous shoots. Stem with many branches, up to half a meter in height. According to phenotypic characteristics, black and white mint are distinguished. The leaves of the first variety are purple, red-violet, white mint is light green. The flowering period of white mint begins earlier, its essential oil has a more subtle aroma. But white mint yields are lower than black mint. Therefore, in industrial cultivation, preference is given to the latter variety. The leaf arrangement is opposite, the arrangement of flowers is annular. **Mint flowers are** small, purple-red, collected in an inflorescence spike. A characteristic property of all types of mint is a persistent aroma.

The species diversity of mint is so wide that the plant can be found almost everywhere. Peppermint is grown in vegetable gardens and orchards, water mint has chosen places near water bodies, long-leaved mint grows in swamps, in highlands and alder groves. ^[2]

In history

The history of mint cultivation dates back centuries: mankind has long used the storehouse of beneficial properties that this plant offers. How did mint spread around the world? The Romans brought it to the islands of Britain, for example. Pliny wrote about mint: “ *The smell of mint makes the mind soar, and the appetite expands and grows .*” Mint is mentioned in medieval manuscripts, it is known that already in the ninth century it becomes a garden crop among the British. Mentions of spearmint can be found in Chaucer's texts. ^[3]

In the 14th century, mint was used to whiten teeth, and later, the fragrant oil extracted from it was added to toothpaste, soap and confectionery. Thus arose peppermint, the oldest cultivated member of the flora, a hybrid of which was bred by the British in the seventeenth century, believed to be by crossing other species. On the territory of Russia, they began to cultivate mint a century later (this process coincided with the activities of the so-called pharmacy gardens). In Soviet times, the plant was cultivated on the territory of the former republics on a huge scale.

Growing conditions

The method of propagation of the plant is vegetative: mint is distributed by dividing the root system, and not only rhizomes, but also with the help of rooted stems and leaves. Basic soil requirements:

moisture. Mint is a high-yielding plant, provided it is grown in low-lying areas, which are characterized by shallow groundwater. With abundant snow cover, mint is able to withstand sub-zero temperatures up to the “30” mark. But in snowless frosts, she dies. The most favorable for mint is summer weather with a temperature regime of 18 to 22 C. Frequent rains and heat lead to the appearance of fungal diseases that adversely affect the amount of essential oil produced by mint. The site for planting rhizomes must be plowed to a depth of 25 - 27 cm, while applying organic fertilizers. In early spring, the soil is cultivated. Fresh unsprouted rhizomes are planted by hand in a square-nested way. When weeds appear, crops are cultivated to a depth of 8–10 cm. The first harvest falls on the period of budding and the beginning of flowering (in July–August), re-collection of mint is possible after regrowth in September. Mint blooms in June - July. ^[four]

The collection of mint begins in July (sometimes in August) and coincides with the period of flower budding . Mint is harvested and repeated, in September, after regrowth.

In the cultivation of mint on an industrial scale, the grass is mowed with special mowing devices. In the daytime, the raw materials are dried, in the evening they are collected in small sheaves. Drying continues until a certain degree of fragility of the stems. Then the leaves are separated from the stems. Mechanized harvesting and cleaning give crushed raw materials, cleaned of hard stem parts. The safety of raw materials is ensured in dry, well-ventilated areas for up to 2 years. ^[2]

How to properly store mint? The answer to this question is determined by the form in which - dried or fresh - you need to save this healing herb. Dried mint is best stored in cloth bags. The life of fresh mint will extend the life of a damp waffle towel and refrigerator. Mint leaves can also be frozen and stored for a long time in the freezer, in a tightly sealed bag or plastic container.

How to grow mint at home

You can enjoy the mint harvest not only in the garden, in the garden. If desired, you can grow mint at home, on the windowsill, in an ordinary flower pot. When planting mint, use seeds or rooted, sprouted mint stalks. Caring for mint in an apartment or house is quite simple: moderate watering, periodic top dressing, moisturizing the aerial part of the plant, additional lighting in the cold season and maintaining the optimum temperature (about 20 degrees).

Growing mint can be accompanied by problems that many gardeners face - pests and diseases affecting the plant. Among the pests that are attracted to mint are mint **flea** , aphids, **mint mites** , leaf beetles and others. The best way to deal with them is to use the appropriate insecticides and spray according to the instructions. It should be remembered that the plant must be processed at least a month before the start of the harvest in order to avoid a high concentration of harmful substances in the mint stem and leaves. Mint is often affected by diseases such as **rust** . At the same time, the lower part of the leaves is covered with voluminous brown spots. The lesion spreads quickly enough and soon the whole plant becomes ill. Rust is caused by a fungus. In case of fungal infection, you need to use a special spray solution. The occurrence of rust is facilitated by high humidity, a rather low temperature regime, the “age” of the mint grown, and an increased level of nitrogen in the soil. Preventive **measures against rust on mint bushes** : you need to feed the soil with a mixture of phosphorus and potassium, replant plants in time and be sure to burn diseased stems.

Power circuit

Peppermint has been successfully used as a flavor and aroma additive in dog and cat food because of its strong-smelling essential oils. In this case, dried stems or leaves of the herb are used, sometimes an extract. Improvements in taste are achieved with the help of different varieties of mint, but **catnip**

(catnip), which contains substances that can attract the attention of a pet and act as a stimulant , remains especially attractive to pets (cats or cats) .

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Mint - useful properties, composition and contraindications

Eliseeva Tatyana, Chief editor of the project EdaPlus.info

Tkacheva Natalia, phytotherapist, nutritionist

Email: eliseeva.t@edaplus.info, tkacheva.n@edaplus.info

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