



Viburnum

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

Keywords: viburnum, useful properties, potentially dangerous effects, side effects, contraindications, diets

Beneficial features

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

Main substances (g / 100 g):	Dried fruits of viburnum ^[6]
Carbohydrates	28 g
calories	105 kcal
Vitamin C	82 mg
Vitamin A	2.5 mg
Vitamin E	2 mg

What is used and in what form

In recipes of folk and official medicine, viburnum bark, flowers and fruits are used. Flowers and bark are used in infusions and decoctions, both for internal and external use. Fruits are most often consumed fresh, in a grated state, with the addition of honey or sugar. Viburnum fruit juice is boiled with sugar, syrups and jelly are prepared. Fresh viburnum juice is used externally for the treatment of skin diseases . Kalina is a part of vitamin teas.

Medicinal properties of viburnum

The bark of common viburnum contains the bitter glycoside viburnin and an enzyme that provokes its decomposition, cyclic alcohol viburnitol, tannins and resinous substances, coumarin derivatives (scopoletin, esculetin), organic acids (valeric, formic, capric, linoleic, palmitic).

The fruits of viburnum vulgaris contain cyclic alcohol viburnitol, invert sugar, viburnin bitterness, ascorbic, acetic and isovaleric acids, pectins. ^[5]

Flavonoids comperol-3-glycoside and kaempferol-3,7-diglucoside were found in viburnum flowers. Viburnum roots contain sterols, astragalin, peonozide, essential oil, amyrin derivatives. Viburnum seeds contain up to 21% fatty oils. ^[6]

Herbal preparations of viburnum bark have hemostatic and weak diuretic properties, have an astringent and calming effect, increase the tone of the muscles of the uterus, and increase the duration of the action of sleeping pills. As a hemostatic agent, drugs based on the bark of viburnum are used for uterine bleeding (and menopausal bleeding), for algomenorrhea, subinvolution of the uterus in the postpartum period, for bleeding against the background of inflammatory diseases of the female reproductive system, and also for hemorrhoidal bleeding. Viburnum bark is used in the prevention of miscarriages. Viburnum fruits (mashed with honey or sugar, in the form of syrup) are prescribed for nervous excitement, high blood pressure, atherosclerosis and vasospasm.

The fruits of viburnum boiled with honey are used for coughing, hoarseness, shortness of breath, liver diseases, jaundice and diarrhea. Viburnum juice with honey is used in folk medicine in the treatment of breast cancer, for the prevention of gastric cancer in gastritis with low acidity. It is believed that the systematic use of viburnum fruits favorably affects the condition of patients suffering from malignant tumors of the digestive system. An infusion of viburnum fruits is drunk for boils, carbuncles, eczema, skin rashes of various etymologies, as a vitamin, tonic and mild laxative. In dermatology and cosmetology, fresh juice of viburnum fruits helps with acne and age spots. Infusion of flowers is used in folk medicine for coughs, colds, sclerosis, pulmonary tuberculosis and stomach diseases. Gargle with a flower infusion and wash the wounds. ^[7]

In traditional medicine

An extract of viburnum fruit on a water-alcohol basis can be found in pharmacies: this drug is called "Kalifen". It belongs to dietary supplements and is consumed with food as a source of substances - proanthocyanidins. The product is available in liquid form, in vials.

In pharmacies, you can buy crushed viburnum bark in packages.

In the pharmaceutical perspective, there is also the production of gelatin capsules with viburnum oil. ^[one]

In folk medicine

- With painful menstruation, menopausal uterine bleeding, and also to prevent miscarriage, they drink it as a decoction: pour a tablespoon of crushed viburnum bark into 200 ml of water, boil for 10 minutes, then cool. Take up to three times a day for a teaspoon.
- As a mild expectorant, sedative and hypotensive agent, a decoction of viburnum fruits is used: pour half a tablespoon of viburnum berries into 200 ml of water, boil, cool. Drink a tablespoon three times a day. ^[5]

- With a cold cough, fever, take a teaspoon of viburnum flowers for 200 ml of boiling water, let it brew for 10 minutes. Take up to 2 glasses per day.
- For stomach ulcers, colitis, constipation, three times a day, 30 minutes before meals, take a tablespoon of crushed raw berries.
- For colds, bouts of dry debilitating cough, intestinal upset and hoarseness, hoarse voice, they drink a decoction of viburnum berries with honey in a warm form (up to 150 ml per day).
- With hypertension, several viburnum berries, pounded with sugar and begun to "ferment", are taken raw: up to 10 berries per day.
- For boils, carbuncles, eczema, various skin rashes, take an aqueous decoction of viburnum berries.
- With dyspepsia and as a diaphoretic, a decoction of viburnum seeds is used. ^[eight]
- In case of influenza, fresh or frozen viburnum fruits are rubbed with honey (in proportions of 1: 1), add a small amount of boiled water at room temperature, take half a tablespoon three times a day after meals.
- When coughing, mix the washed fruits of viburnum with honey (1: 2), let it brew for at least 6 hours, and take a tablespoon three times a day.
- In case of bronchial asthma, pour a tablespoon of ripe fruits of viburnum mashed in mashed potatoes with 200 ml of warm boiled water, combine with a tablespoon of honey. Bring to a boil over low heat, then keep on low heat for at least a quarter of an hour, strain, cool and take a tablespoon 3-5 times a day.
- For hypertension, viburnum bark is also used: pour 2 tablespoons of crushed bark into 400 ml of boiling water. Bring to a boil, keep in a water bath for half an hour, strain, cool and drink a tablespoon three times a day.
- In case of coronary heart disease, eat viburnum fruits grated with sugar - up to 3 tablespoons per day, or drink viburnum juice in small portions (100 ml of juice per day).
- In case of tachycardia, grind 5 tablespoons of viburnum fruits in an enamel bowl, gradually pour in 600 ml of boiling water, stirring constantly, let it brew for 4 hours, then strain. Drink 100 ml per day, in 4 doses, before each meal.
- With hemorrhoidal bleeding, a decoction prepared from a tablespoon of crushed viburnum bark and 200 ml of boiling water is drunk in a tablespoon three times a day, or ready-made pharmacy candles are used on viburnum bark extract. ^[3]
- When coughing, a home remedy is useful, for the preparation of which you will need 400 g of viburnum fruits, 400 g of honey, 220 g of sugar and 250 ml of wine vinegar. Washed and dried fruits grind in a puree and bring to a boil. Strain and add honey, sugar and wine vinegar to the strained broth. Stir, boil the mixture and pour into sterilized bottles. Keep refrigerated. ^[four]

Externally:

With angina, an infusion of fruits, flowers and leaves is gargled. Pour a tablespoon of flowers or leaves with 200 ml of boiling water, leave for an hour, then strain. Gargle several times a day.

Juice of viburnum berries remove acne on the face. For acne, mix the juice of fresh viburnum fruits with honey (in equal parts), apply to cleansed face skin, rinse with warm water after a quarter of an hour. ^[3]

Ripe crushed berries or pulp from cambium bark scraped off from young branches are used for compresses on wounds (including bleeding ones) and on skin areas affected by eczema. ^[eight]

in oriental medicine

In Chinese informal medicine, viburnum fruits and leaves were considered a laxative and emetic.

In scientific research

The medicinal potential of viburnum is a fertile material for research.

- The scientific substantiation of the traditional use of Turkish folk medicine viburnum in the treatment of nephrolithiasis is confirmed in the article by M. Ilhan, B. Ergen , I. Suntar and others ^[9]
- An assessment of the agro-morphological , biochemical and bioactive characteristics of viburnum is given in a study by Turkish scientists N. Ersoy , S. Ersisli and M. Gundogdu . ^[10]
- The stress-protective properties of viburnum and the role of the plant in stimulating the metabolic reactions of liver fat metabolism were studied in the work of Sprygin V.G., Kushnerova N.F., Fomenko S.E. and others ^[11]
- Dissertation of Ilyasova S.M. is devoted to a comparative analysis of the properties of phytopreparations based on common viburnum and viburnum pride . ^[12]
- The antioxidant properties of viburnum are the subject of the work of Tsekhina N.N., Khasyanova N.G., Orekhova S.V. ^[13]

Weight regulation

Viburnum fruits are used for fasting days (consumed with water, honey or a small amount of sugar). They also use viburnum as part of diets (watermelon- viburnum diet, fasting days on watermelons and viburnum fruits).

In cooking

- Viburnum jam

Ethnobotanist Robin Harford 's recipe

You will need products: 800 g of viburnum berries (the fruits should be soft, easily squeezed by your fingers), orange puree (you will need the pulp of 2 oranges), 12 small apples mashed to a puree state (it is better to use "paradise apples"), 0.5 l of cold water, sugar.

Mix viburnum fruits, orange and apple puree and water in a saucepan with a thick bottom, and bring to a boil. Boil over low heat, stirring occasionally. Put the boiled mass in a clean tissue bag, placing it in a suspended state over the container and leave it overnight for decanting. Measure the expressed jelly base liquid with a measuring cup and add sugar (at the rate of 0.5 kg of sugar for every 0.5 l of liquid). Stirring evenly, bring to a boil over low heat, and boil for about a quarter of an hour. As soon as the jam begins to thicken, remove from heat, let it brew for 5 minutes, pour into sterilized jars and close. ^[fourteen]

- Spicy viburnum sauce (for meat or fish)

Required ingredients: 1 kg of viburnum fruits, 1 kg of granulated sugar, 5 g of citric acid and red hot pepper (one pod). Rinse the viburnum under running water, let it drain, then simmer in a small amount of water for a couple of minutes and rub through a sieve. Combine the mashed puree with granulated sugar, citric acid and finely chopped, seeded pepper. While stirring, bring the sauce to a homogeneous state. Arrange in sterilized jars and let it brew at room temperature for 48 hours. For long-term storage, close the jars as usual. Store the sauce in a dark and cool place. To eat immediately, store the sauce in the refrigerator, tightly closed. ^[fifteen]

- Belish with viburnum

To prepare such a traditional Tatar pie with viburnum berries for the dough, you will need: 4 cups of flour, 2 cups of curdled milk, 3 eggs, 200 g of butter, 0.75 teaspoon of baking soda, a pinch of salt. Ingredients for the filling: 0.5 kg of viburnum berries, 0.3 kg of sugar, 150 g of malt, 2 tablespoons of ground crackers. Also one egg for greasing the surface of the pie. Knead the dough from flour, curdled milk, beaten eggs, melted butter, soda and salt. Sort viburnum, mix with sugar and malt, and leave to infuse in a closed, well-heated oven. Divide the dough into two unequal parts. Roll out the cake from a larger portion of the dough, put it in a greased form in such a way that the edges of the dough hang from the sides of the form. Put the viburnum filling on the cake, wrap the edges of the dough a little towards the center, forming folds. Roll out pigtails and flagella from a smaller portion of the dough, decorate the pie with them. Put the pie in the form in a warm place to "fit". Then grease with egg mass and bake at medium temperature until golden brown. ^[16]

Combination with other products

In combination with apples, marmalade is prepared from viburnum fruits (viburnum and apples are taken in equal proportions), as well as marshmallow (viburnum fruits should be taken one third). Viburnum and mountain ash complement each other especially well in taste: viburnum fruits soften the bitterness of mountain ash, and rowan berries, in turn, give the dish or product a pleasant color and a peculiar taste and aroma. ^[12]

Viburnum drinks

- Kissel from viburnum

It will take 150 g of juice from viburnum fruits, 300 g of sugar, 120 g of potato starch and 2 liters of water. Dilute the juice with water, heat to a hot state, add starch, previously diluted in a small amount of cold boiled water, then add sugar, mix everything thoroughly and bring to a boil. So that the surface of the finished jelly is not covered with a tightening film, sprinkle with a small amount of sugar.

- Morse from viburnum

Ingredients: a glass of ripe viburnum fruits, half a glass of granulated sugar, 1 liter of water. Sort the fruits (berries), wash, mash and squeeze the juice. Place the container with juice in the refrigerator. Pour viburnum pomace with hot water, bring to a boil, boil for 10 minutes, then strain, add sugar, cool and combine with the previously squeezed juice. Pour into glasses and serve with a slice of lime or orange.

- Drink from oats and viburnum:

You will need a glass of oats, half a glass of viburnum fruits, 0.25 cups of raisins or dried apricots, 3 teaspoons of honey or sugar, 1.5 liters of water.

Sort the oats, rinse, pour cold water, boil and let it brew for at least 3 hours. Then bring to a boil again, add the mashed fruits of viburnum, add chopped raisins or dried apricots, remove from heat and leave for an hour. Strain, serve warm or cold with honey or sugar. ^[four]

Kalina in cosmetology

Fruits, flowers and leaves of viburnum are used in many cosmetic recipes: in the treatment of problem skin, to get rid of age spots and freckles.

- **Toning face mask from viburnum leaves** : chop the washed viburnum leaves, apply a thin even layer on the face skin smeared with a greasy cream. After a quarter of an hour, remove the mask with a soft cloth and rinse with warm water.
- **Cosmetic viburnum ice** (frozen juice of viburnum fruit) is used for facial massage, lightening age spots, removing freckles and eliminating fine wrinkles.
- **Viburnum juice whitening mask** : mix viburnum fruit juice and egg white in equal proportions. Apply to previously cleansed face. Wash off after 20-30 minutes with warm water. Also, to whiten the skin, you can combine viburnum juice with honey.
- **To remove freckles and lighten overly tanned skin**, use this homemade cosmetic product: mix viburnum juice with sour cream (1: 1), apply the mixture on your face. Leave the mask for 15 minutes, remove the residue with a soft cloth and rinse with warm water.
- **tonic lotion** is prepared as follows: steam a handful of viburnum flowers with 200 ml of boiling water. Let it brew for 2 hours, then strain. Ready infusion to use for rubbing the skin of the face.
- **Fresh viburnum juice** is used to wipe oily skin, to eliminate acne and age spots. After applications with viburnum fruit juice, the skin must be softened with a nourishing cream. ^[17]

Dangerous properties of viburnum and contraindications

Uncontrolled consumption of fresh viburnum fruits can cause vomiting (also if the berries have retained bitterness that has not been eliminated by the first frosts). Viburnum is contraindicated for gout. With caution, it should be taken by those who suffer from low blood pressure (hypotension). ^[3,6]

Species and varieties

There are at least 166 species belonging to the genus Kalina. The most common ones are:

1. **Viburnum vulgaris** - the habitat of the species covers eastern Europe and western Siberia. Medicinal plant. Within the framework of this species, many decorative (" Compactum ", " Roseum ", "Buldenezh") and fruit varieties ("Pomegranate Bracelet", "Red Coral");
2. **Viburnum whole-leaved (gordovina)** is a predominantly wild-growing species, growing in the central and southern parts of Europe. It is also cultivated as an ornamental shrub with dense, beautiful inflorescences. Known as "black viburnum". Ink is produced from the berries of this species, chibouks are produced from the stem part;
3. **Viburnum evergreen (laurel)** - an ornamental Mediterranean shrub that has become widespread on the southern coast of the Crimean peninsula;
4. **Kalina Bureinsky** - found on the territory of the Bureinsky mountain range (Khabarovsk Territory). The plant is a honey plant. The view has a decorative value;
5. **Kalina Raita** - grows on Sakhalin, the Kuril Islands, Korea and Japan. The species is listed in the Red Books of Russia and the Sakhalin Region;
6. **6 Fragrant viburnum** - common in Japan, Korea, India. ^[one]

Viburnum vulgaris is a branched bush from 2 to 5 m high with gray bark. The leaf arrangement is opposite, the leaves are large, petiolate. Snow-white flowers are collected in corymbose inflorescences. Shiny, juicy, bright red fruits form drooping clusters. The fruits are berry -like oval drupes with a hard stone. Blooms in May-June.

Viburnum grows along water bodies, in meadows, in the undergrowth of mixed and deciduous forests. ^[2]

Growing features

The plant propagates both by seed and vegetatively (by dividing the bush, cuttings, layering, etc.). Seeds are subjected to long-term stratification and then planted in prepared soil, keeping the distance between rows from 0.3 to 0.4 m. After two years of cultivation, the seedlings are transplanted to a permanent plot. The plant tolerates wintering well without shelter. Viburnum grows on any type of soil, with the exception of overly dense clay or rocky soil. Light-loving and moisture-loving plant: needs additional watering during the flowering period, and during active growth in the spring. The most effective way to propagate viburnum is in a greenhouse, using green cuttings, in early summer. In this case, by autumn, a well-developed root system is formed in a young tree. [3]

How to choose

The degree of maturity of viburnum fruits can be judged by the color of the berries: they should be saturated, dark red, pomegranate in color. It is also important to remember that the harvest from the viburnum tree can only be harvested after the fruits have been "grabbed" by the first frosts and bitterness has gone out of them. [6]

When to harvest viburnum?

The bark is harvested in the spring, during the movement of juices (April-May). On cut branches, circular cuts are made with knives at an interval of 0.25 m, they are connected by longitudinal cuts, after which the bark is easily removed. Dry in attics, under a canopy, where there is good ventilation, laying out a thin layer of 3-5 cm, on paper or cloth. Shelf life up to 4 years. Stored in bales up to 50 kg.

The fruits are harvested when they are fully ripe (August-September). Whole bunches are cut with knives or sickles and put loosely in baskets. Dry in ovens or dryers. After threshing and separating on a sieve from twigs and stalks. Dried fruits are stored in bags. Shelf life has not been set.

How to store

Viburnum fruits can be stored dried or dried, ground with sugar, frozen and stored in the freezer like ordinary berries, as well as squeezed juice and prepared or boiled syrup.

How to dry viburnum?

To prepare dried viburnum, you need to: rinse ripe fruits, remove stalks, sort out spoiled berries. To reduce bitterness, the fruits should be blanched for 2-3 minutes. Then let drain, dry on a paper towel, getting rid of excess moisture, and mix with sugar. For 1 kg of viburnum fruits, take 250 g of granulated sugar and let it brew for a day at room temperature. Drain the resulting juice, add 250 g of sugar to the viburnum mass again and hold until the juice appears. The juice drained for the first and second time is combined and preserved. The remaining viburnum -sugar mass is poured with hot syrup of 50% concentration and allowed to brew for 5 minutes. Then the syrup is separated, filtered through a sieve, and the fruits are laid out in a thin layer on a baking sheet, put in the oven, and kept for half an hour at a temperature of 850 C. Then they are laid out in jars.

How to properly dry viburnum?

To dry the fruits of viburnum, they are thoroughly washed in their ripe form along with the stalks, which are then very carefully removed. The washed fruits are laid out in an even thin layer on a baking sheet covered with parchment and dried at a temperature of 50-600 C with the door open. Slow drying is possible as the fruits are not susceptible to mold due to their high content of antimicrobial substances. Properly dried viburnum fruits are roundish, wrinkled and flattened. Dried viburnum has a barely perceptible aroma and a bitter-sour taste. It is mainly used for making decoctions.

How to preserve viburnum juice?

You will need: 1 kg of viburnum fruits, 200 g of granulated sugar and 200 ml of water. Sort the fruits, wash and squeeze the juice out of them. Pour the pulp with water, boil for 5 minutes, then strain. The broth is combined with squeezed juice, sugar is added, mixed, poured into jars, pasteurized and closed.

Kalina with honey: how to cook for long-term storage?

It will take 400 g of viburnum and 200 g of honey. Pick the fruits of viburnum, rinse well, dry. Rub the prepared fruits through a sieve. Add honey and mix thoroughly. Pour into sterilized jars and store in the refrigerator. ^[four]

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Viburnum - useful properties, composition and contraindications

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