



## Rosehip (lat. *Rōsa*)

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

**Keywords:** wild rose, benefit, harm, beneficial properties, contraindications

## Useful properties of wild rose

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

Main substances (g / 100 g):	Fruit wild rose [1]
Water	58.66
Carbohydrates	38.22
Squirrels	1.6
Alimentary fiber	24.1
Sugar	2.58
Fats	0.34
Calories (kcal)	162
Minerals (mg/100 g):	
Phosphorus	61
Calcium	169
Potassium	429
Sodium	four
Magnesium	69
Iron	1.06
Zinc	0.25
Copper	0.113

Manganese	1.02
<b>Vitamins (mg/100 g):</b>	
Vitamin C	426
Vitamin B2	0.166
Vitamin A	1.3
Vitamin B6	0.076
Vitamin B1	0.016
Vitamin PP	1.3
Vitamin E	5.84

The table provides data on wild rose hips growing in the Great Plains (piedmont plateau in the USA and Canada), which is very rich in vitamins P, E, K, flavonoids, tannins, pectins, carotenoids. Among the vitamin group, vitamin C stands out especially. According to this indicator, rose hips are 50 times more than lemon, and 10 times more than blackcurrant.

The wild roses common in our country are May, needle, Begger, Dahurian, Fedchenko, and others, which also have a rich vitamin composition and are used as medicinal raw materials, however, not all plant species (and there are more than 350 of them) are equally useful as a source of valuable substances. Red- and white-flowered species contain a lot of ascorbic acid (sometimes more than 1000 mg per 100 g), and in pink- and especially in yellow-flowered wild roses it is much less (although these species are richer in tannins).

In addition, the concentration of valuable vitamins depends on the place where the shrub grows. Romanian scientists in their study [2] compared 6 types of wild rose, collected at different heights. It turned out that the highest content of ascorbic acid was found in the fruit pulp of bushes growing at the level of 807-830 meters. Even the species with the least amount of vitamin C, taken from the highlands, contained twice as much ascorbic acid as the same species growing lower.

### Healing properties of wild rose

In 2018, a study was published [3], which examined the traditional use of rose hips and its pharmacological profile based on previously written scientific papers. From the above materials, it follows that at different times, scientists discovered anti-cancer, antioxidant, anti-inflammatory effects of berries, the extract of which also had a therapeutic effect on arthritis. In a number of other studies, it was found that rose hips protect the liver, kidneys, cardiovascular and nervous systems, and that it is effective against the H. Pylori bacterium, which is involved in the development of peptic ulcer.

And for the first time, the healing properties of wild rose began to be used even by ancient, and after them by medieval healers. The famous Arab physician Avicenna a thousand years ago treated inflammation of the eyes, gums and dental diseases with the oil of the plant. European medieval physicians with wine-infused flower petals relieved gastrointestinal problems and women's diseases. A mixture with honey dissolved in water helped them relieve high temperatures in patients, and vinegar formulations were used to treat infected wounds.

As a wound healing agent, rose hips and its petals were also used in Russian-Turkish wars, starting at least from the 17th century. Dressings were impregnated with water tinctures of the petals, wounds were treated with a decoction of the fruits to prevent gangrene, and "svoroborin molasses" ("rose hips" were called in the old days) were drunk to quickly restore strength after injury and fever.

The effectiveness of wild rose here is explained by the cumulative effect of its constituent components. Isoflavonoids and kaempferol have a diuretic effect, rutin in combination with vitamin P has a capillary-strengthening effect, and quercetin has a pronounced hemostatic effect. Tannins, contained not only in fruits, but also in other parts of the plant, demonstrate their bactericidal, anti-inflammatory and astringent properties.

Today, French rosehip petals, which also exhibit the above properties, are included in the pharmacopeia of a number of countries and can be included in the treatment of atherosclerosis, hypertension, ulcers, gastritis, colitis, dysentery.

### **Use in traditional medicine**

Rosehip is widely used both as a raw material for the production of ascorbic acid, and as the basis of various medicines:

Means such as "Holosas", "Cholemax", "Holos" are an aqueous extract of rose hips. They are prescribed as a choleric agent for inflammation of the liver and gallbladder (excluding forms of cholecystitis with the formation of stones).

"Rozanol" based on rosehip oil has a choleric, but also bactericidal and antispasmodic effect.

From berry meal rich in tocopherols and carotenoids (waste of fruit processing), an oil solution "Carotolin" was created, designed to normalize tissue metabolism in skin lesions, eczema, trophic ulcers.

The drug Setarud (IMOD™), which, in addition to dog rose extract, includes extracts of common tansy and stinging nettle, is declared by the manufacturer as an immunomodulatory agent. There is evidence of the use of this drug in the treatment of HIV-infected [4].

Rosehip syrup can be prescribed to improve appetite and to prevent beriberi.

Rose hips are included in the composition of the anti-asthma mixture (according to Traskov), which is intended for the treatment of bronchial asthma.

### **The use of wild rose in folk medicine**

Rosehip can be called one of the most popular natural ingredients used in folk medicine both on its own and in combination with other components. In ancient times, it was believed that even the aroma of rose hips can sharpen the senses, heal the "cold nerves", relieve the heaviness of the heart and "hot" the brain. To get rid of a headache, rosehip preparations were smeared on the forehead. But if the source of pain was located in the ear, then with the help of the fruits of the plant they also fought with "ear worms" and ringing in the head.

In modern folk medicine, the tradition has been preserved to treat heart diseases with rose hips and petals of its color. But, in general, the range of applications of various parts of this plant is very wide:

- fruit decoctions are in demand as a choleric and diaphoretic, prescribed in combination with honey for colds, hypertension, liver diseases;
- jam and syrups from rosehip petals are taken as a sedative;
- a decoction of pathological formations that affect the plant (they are called galls), are included in the treatment of stomach ulcers and duodenal ulcers, pulmonary tuberculosis, malaria;
- crushed plant seeds mixed with alum are applied to wounds for quick healing;
- a resinous substance obtained from burnt rosehip branches, used in the treatment of psoriasis;

- boiled branches and leaves of the plant are prescribed by healers for dysentery and pain in the stomach, typhoid, scarlet fever, inflammation of the kidneys, pulmonary tuberculosis;
- A decoction of the roots is considered a good diuretic and prophylactic that prevents the formation of stones in the bladder.

The beneficial properties of rose hips are manifested mainly due to polyphenols and vitamin C in the composition. Even the leaves contain up to one and a half percent ascorbic acid. This is due, in particular, to the antioxidant and anti-inflammatory effects. Moreover, both these and other healing manifestations are expressed so vividly that they have become entrenched in the traditional recipes of many peoples of the world.

In France, gallic rosehip petals are used to prepare antihelminthic drugs, remedies for hemorrhoids and diarrhea.

In Bulgaria, the petals of the Damascus rose (in ancient times, derived from the Gallic and musky rose hips) are used to treat not only diarrhea and inflammation of the gastrointestinal tract, but also sore throats and lesions of the mucous eyes.

In Germany and Poland, the fruits of the plant are used for diseases of the bladder and kidneys.

In Russian folk medicine, petal preparations are drunk for pulmonary tuberculosis, cholesterol blockage of blood vessels, and neurasthenia. The throat and mouth cavity are also rinsed with this healing liquid, ulcers and erysipelas are sprinkled with the powder of crushed petals, and the dressing material is impregnated with dog rose petal decoction to stop bleeding.

In Central Asia, petal jam is eaten to improve the functioning of the heart and nervous system.

On the territory of Ukraine and Belarus, radiculitis, rheumatism and bloody diarrhea are treated with a decoction of branches.

In folk medicine of the Yakuts, a diuretic is prepared from a decoction of the leaves of the wild rose, and a remedy for malaria from a decoction of leafy stems.

Some indigenous tribes of North America treat throat diseases with a decoction of the roots of the Nootkan rosehip.

In general, rosehip-based products in folk medicine most often restore the functioning of the digestive organs, stop bleeding, stimulate the secretory function of the thyroid gland and adrenal glands, relieve inflammation of the tonsils, stop vomiting and relieve hiccups. It is believed that daily consumption of rose hips (at a dosage of approximately 2-2.5 g), according to popular recipes, should increase potency and delay aging.

### **How to brew wild rose correctly**

Perhaps the main advantage of wild rose over other plants is the record content of vitamin C in its fruits. Of the European plants, only the spring primrose is ahead of the wild rose in this indicator. Since vitamin C is lost during prolonged exposure to high temperatures, the problem arises of how to properly brew rose hips in order to retain the maximum amount of L-ascorbic acid (biologically active isomer) in the resulting broth.

In the absence of oxygen, L-ascorbic acid is able to withstand heating in excess of 100°C without being destroyed. That is, if you pay attention only to the temperature, then one of the traditional

methods of sufficiently long (15-20 minutes) boiling of rose hips, followed by infusion for up to 4 days, should not greatly harm ascorbic acid.

However, in this method, at least, the degree of destructive effect of oxygen is not taken into account. It is not for nothing that many herbalists advise not to grind the wild rose before brewing, believing that in order to reduce the intensity of oxidation, it is more useful to simply crush it, pierce the protective skin several times with a toothpick, or cut the fruit in half. For the same reason, herbalists believe that it is more correct to brew wild rose in a closed thermos. In addition, a number of additional factors should be taken into account that complicate the procedure for brewing rose hips.

In one of the projects [5], scientists evaluated the degree and rate of destruction of vitamin C in water of different temperatures and at different values of the measure of acidity (pH from 5 to 6.5). During the experiment, the researchers maintained a constant temperature at around 60, 70, 80 and 90 degrees Celsius in a 30-minute interval. As a result, it was found that several parameters are important at once:

**temperature** . Regardless of the pH value, at 90-degree heating, 15-20% of vitamin C was lost after 10 minutes. During the same period of time at 60-degree heating of water, the loss of vitamin C was no more than 5%.

**pH level** . Ascorbic acid is more susceptible to thermal degradation at higher pH values. At a water pH of 5, approximately 5% of vitamin C was lost in 20 minutes when heated to 60 C , and at a pH of 6.5, more than 60% was lost in the same time at the same heating temperature.

**Heating duration** . For half an hour of the procedure at all temperatures and pH values tested in the experiment, the content of ascorbic acid decreased by more than 50%. At the same time, the higher the temperature and pH, the greater were the losses, up to the almost complete disappearance of the vitamin. Overall, the results showed that, other things being equal, high temperature was less damaging to vitamin C than longer steeping times.

But this is not all the difficulties, since the proximity of the vitamin to other substances also affects the pace of destructive processes. On the idea of slowing down the breakdown of ascorbic acid with the help of tea phenols, a phytotherapeutic tradition is based on brewing rose hips along with tea leaves. It is believed that the loss of ascorbic acid is accelerated by iron and copper ions. However, when they interact with tea phenol (rather than vitamin C), the rate of loss of ascorbic acid decreases. Brewing such tea-rosehip drinks is a popular and common practice, but it should be borne in mind that tea caffeine interferes with the absorption of vitamin C in the body. Therefore, "winning" at one stage of the process turns into a "loss" at another.

If you try to take into account all the listed conditions as much as possible, then we can talk about the two most effective ways of brewing rose hips. In both cases, 1 part of the fruit of the plant is taken per 10 parts of water. (If the decoction is prepared for external use, the proportion of raw materials increases by 2-3 times). Before you put the wild rose in a thermos, the berries need to be washed, cleaned of the "hairs" of the sepals, crushed with your fingers and pierced several times with a toothpick. Dried rose hips can be crushed into small fractions. It is better to take a thermos with a glass flask, and water with a low pH level. Further, in the first case, the wild rose is filled with water at 90 C for literally 10-15 minutes. In the second - 50-60-degree water for 20-30 minutes. Regardless of the method, the thermos closes tightly, and the broth is drunk immediately after preparation.

### **in oriental medicine**

In Tibet, India, China, rose hips are used to treat stomach ulcers, diseases of the liver, and excretory systems (kidneys, bladder). Tibetans also use fruit-based drugs to fight atherosclerosis, neurasthenia

and pulmonary tuberculosis, and the Chinese use a decoction and powder of plant roots to remove parasites and activate the digestive tract.

Under the name mei-kuei-gua in the collection of Chinese medicinal herbs, wrinkled rosehip is mentioned, which affects the liver and spleen, promoting active blood circulation. A decoction of its petals in traditional medicine is used to stop hematemesis, treat blood diseases, apply lotions soaked in mei kuei gua to dissolve purulent abscesses. In addition, medicinal tea is brewed from the petals and mei-kuei-lu ("Pink dew") tincture is made.

### **In scientific research**

American scientists have explored the potential of rose hips in terms of fighting breast cancer, or rather, with its type as "triple negative". This type of cancer is very difficult to treat because the cells in the tumor lack the three receptors that drugs normally target. And even when in remission, patients with this disease have more relapses and a higher mortality rate compared to other types of breast cancer.

The scientists conducted a test-tube study on triple-negative breast cancer cells. As a treatment, they used rosehip extract in various concentrations. The highest dose (1.0 mg/ml) reduced the proliferation of pathological cells by 50% and their degree of motility by 25 to 45%. A decrease in concentration led to a decrease in the effectiveness of therapy. Additional experiments made it possible to reveal the mechanism of action of the rosehip extract. It turned out that it reduces the amount of two enzymes that are responsible for the growth of disease-causing cells in this type of breast cancer.

The extract also enhanced the ability of Doxorubicin (a chemotherapy drug commonly used for breast cancer) to inhibit proliferation and reduce cell motility. It is believed that rose hips may be effective in the fight against prostate cancer, but studies are needed to obtain confirmation [6].

In experiments on mice, rosehip powder has been shown to prevent the worsening of obesity and slow the progression of type 2 diabetes by acting even at the stage of pre-diabetes, when glucose intolerance occurs. In addition, the powder significantly influenced the reduction of the level of "bad" cholesterol in the blood.

Based on this, Swedish scientists undertook to test the effect of rose hips on obese people. The randomized, double-blind study included 31 obese patients with normal glucose tolerance. They took the rosehip powder drink for 6 weeks and then compared their weight, glucose tolerance, blood pressure, blood fat levels and inflammatory markers with those of control patients who did not drink the drink.

The results of the study demonstrated that the rosehip drink group had a significant reduction in systolic (upper) blood pressure and total plasma cholesterol levels. The risk of developing cardiovascular diseases on the Reynolds scale (which takes into account many factors: gender, age, previous diseases, the fact of smoking, etc.) has also decreased. At the same time, indicators of weight, diastolic (lower) blood pressure, glucose tolerance, high-density ("good") cholesterol, triglycerides, and inflammatory markers did not differ in representatives of both groups.

Thus, the researchers concluded that daily consumption of 40 g of rosehip powder for 6 weeks can significantly reduce the risk of cardiovascular disease in obese people by lowering upper blood pressure and plasma cholesterol levels.

As for the differences in the results of studies in mice and humans, scientists explain this by the difference in dosages. Rosehip powder made up almost 30% of the rodents' diet, while humans took

only 40 g/day. It was the high dosage that could cause an improvement in the lipid profile, weight loss, etc. in mice. [7]

Hyben Vital<sup>®</sup>), made from the seeds and skins of the fruit, has been studied in a randomized, double-blind study on skin cell aging and wrinkling. The experiment involved 34 people aged 35 to 65 years with wrinkles on the face of the "crow's feet" type. The effect of rosehip for 8 weeks was compared with the effect of a well-known anti-wrinkle agent (astaxanthin).

Using a special Visioscan camera (a device that detects changes in skin texture), a corneometer (skin moisture meter) and a cutometer (a device that measures skin elasticity), scientists obtained information about the relevant parameters - wrinkles, skin hydration level and elasticity, at the start, and then 4 and 8 weeks after the start of the experiment.

Also, all participants donated blood to determine the lifespan of the cells. Scientists studied blood samples for 5 weeks and drew conclusions based on the rate of destruction of red blood cells, at which hemoglobin enters the blood plasma.

After the end of the study, patients from both groups showed significant improvements in the condition of the skin in all respects (wrinkles, moisture, elasticity). Blood samples showed that rosehip powder increased the lifespan of red blood cells. Also in the questionnaires, all participants expressed satisfaction with the effect they received.

The results allowed scientists to conclude that the use of rosehip powder ( Hyben Vital<sup>®</sup> ) improves skin condition during aging. The discovered stabilizing effect of this drug on erythrocyte membranes may help in the future to increase the lifespan of cells and thus slow down skin aging [8].

### **Weight regulation**

Rosehip can show its potential in programs aimed at reducing excess weight. First, Japanese scientists conducted experiments on mice, which showed that the extract of these berries is able to inhibit weight gain and reduce the amount of visceral fat. After that, encouraging results prompted researchers to study the effect of the extract on the human body.

The 12-week experiment involved 32 people (16 men and 16 women) in the stage of pre-obesity with a body mass index of 25-30. They were divided into 2 groups, one of which was given a daily placebo tablet, and the other was given a tablet that contained 100 mg of rosehip extract. Scientists did not interfere in any way with the diet of patients, but took it into account when summing up. Before, during and after the experiment, the participants were measured the amount of visceral fat and the total percentage of body fat. Weight and body mass index were also taken into account.

The results showed that total fat percentage, visceral fat, weight and body mass index decreased significantly in the group of people who took rosehip extract. Moreover, a decrease was observed, both in relation to the control group (taking a placebo), and in relation to their own indicators at the time of the start of the experiment. In addition, scientists noted a decrease in the amount of subcutaneous fat on the abdomen. It is important that no side effects from the drug were detected during the study [9].

### **In cooking**

Rose hips today have become the basis for jam, marmalade, compotes and jelly, sweets and marmalade, sweet puree, kvass, syrup. Jam is also made from the petals of some species (cinnamon rosehip, wrinkled). But in general, there are much more plant species that have culinary significance. The species processed for culinary purposes include prickly dog rose, Daurian, apple, shield-bearing, Alberta, Begger, Fedchenko, Aitchison, etc. Rose hips can also be served raw.

From rose hips and 11 types of herbs in 1953 in Yugoslavia, the popular carbonated soft drink "Cockta" was created, which for some time successfully competed in the country with Coca-Cola. The recipe for the drink was so successful that in Poland, under the similar name "Polo Cockta", they began to produce a similar product. After the separation of Slovenia into a separate state, Cockta soda continued to be produced, and in 2019 its new series without sugar was even released.

In addition, rose hips have found their use in alcoholic beverages. A fragrant liqueur is made from flower petals, and adding to wine allows you to get a specific spicy taste. Also, based on the fruits, leaves, nuts and flowers of the plant, depending on the species, tea and coffee surrogates are obtained.

### **In cosmetology**

Rosehip in cosmetology is an almost universal product. Skin care products from dozens of cosmetic brands include rosehip in natural shampoos, cleansing oils, protective creams, moisturizing lotions, body scrubs, peeling socks, anti-wrinkle products and lifting masks. In combination with other active ingredients, rosehip extracts and extracts offer a solution to almost any cosmetic problem.

But the cosmetic potential of wild rose has been used since time immemorial. A rejuvenating decoction for washing was prepared from rosehip flower oils in ancient Egypt. In the ancient world, they were included in the composition of perfumes, added to the water when taking a bath to soften the skin. And rubbing the flower petals of the plant after bath procedures was practiced to eliminate the smell of sweat. Since that time, rosehip juice has also been used as an effective sunscreen.

### **Dangerous properties and contraindications**

Instructions for rosehip preparations as contraindications indicate that a person has stomach and duodenal ulcers (in the acute phase), gastritis (due to increased stomach acidity), as well as individual allergic reactions.

Since rose hips increase blood clotting, its uncontrolled use can create prerequisites for problems of the cardiovascular system. And the ability of the fruits of the plant to stimulate the production of bile can lead to an exacerbation of cholelithiasis. People who take drugs to reduce pressure should also be more careful with medicinal berries, since the combination with rose hips can enhance the effect of the drug.

### **Selection and storage**

When buying rose hips, experts recommend choosing cultivated rose hips, which are considered both healthier and tastier. The main difference from the fruits of a wild plant is the size. Wild is usually noticeably smaller, although 2 varietal groups can be distinguished among cultivated plants:

- with larger fruits from 4 g, which look like apples covered with thick skin,
- with small, up to 4 g, fruits with thin skin.

Which rosehip to choose, the buyer usually decides based on their own preferences, but it should be borne in mind that excellent jam is obtained from the fruits of the first group, and dried blanks from the fruits of the second.

Buyers are advised to pay attention to the shape of the "berry". The oval elongated shape is characteristic of varieties with a high content of vitamins and microelements in fruits.



Another sign of a high content of vitamin C is the sepals directed forward (vegetative "crown" on the "crown" of the fruit). If the sepals are bent back, and the petals of the "crown" seem to lie on the sides of the fruit, then there will be less vitamin C in the rosehip.

In any case, the fruits must be ripe. In our country, wild rose is harvested starting around October, trying to be in time before the first frost. Choose fruits of dark red saturated color. An orange spot on the skin indicates that the wild rose has not yet ripened.

Store freshly picked wild rose no more than 5-7 days. During this time, you need to have time to either use it or dry it. In dried form, under the right conditions, the blanks can be stored until the next harvest. "Correct" are the conditions under which the fruits are placed in a breathable canvas bag. You can also store the fruits in a glass jar, but then it should be covered with gauze or burlap and put in a dark place.

Rosehips should also be dried in a dark, cool and dry room in a natural way to a state of brittleness (the fruit should break if you press on it). So that the fruits do not become moldy, it is advisable to mix them periodically. It is impossible to wash the berries before drying.

A controversial assessment is caused by the method of drying fruits in the oven. In this version, the wild rose is laid out on a baking sheet in one or two layers, the oven door is slightly opened so that moisture comes out and the temperature is set at about 80-90 C for a quarter of an hour. After that, the temperature is lowered to 50-60 C and the product is dried for another 5- 7 o'clock. The berries obtained in this way, even in the dried state, can remain large and smooth, but since the wild rose in the oven is exposed to high temperatures for a long time, the probability of preserving the valuable vitamin in it is sharply reduced.

## Literature

1. US National Nutrient Database, <https://fdc.nal.usda.gov/fdc-app.html#/food-details/168998/nutrients>
2. L. Oprica, C. Bucsa, and M. M. Zamfirache. Ascorbic Acid Content of Rose Hip Fruit Depending on Altitude. Iran J Public Health. Jan 2015; 44(1): 138–139.
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4450003/>
4. Ayati Z., Amiri MS, Ramezani M., Delshad E., Sahebkar A., Emami SA Phytochemistry, Traditional Uses and Pharmacological Profile of Rose Hip: A Review. Curr Pharm Des. 2018;24(35):4101-4124. DOI: 10.2174/1381612824666181010151849. <https://www.ncbi.nlm.nih.gov/pubmed/30317989>
5. Paydary, K. Safety and efficacy of Setarud (IMOD™) among people living with HIV/AIDS: A review / K. Paydary, S. Emamzadeh-Fard, HRK Khorshid, K. Kamali, S. SeyedAlinaghi, M. Mohraz // Recent Patents on Anti-Infective Drug Discovery. - 2012. - Vol. 7, no. 1. - P. 66-72.
6. Charles C. Ariahu, Diana K. Abashi, and Chiemela Enyinnaya Chinma. Kinetics of ascorbic acid loss during hot water blanching of fluted pumpkin (*Telfairia occidentalis*) leaves. J Food Sci Technol. 2011 Aug; 48(4): 454–459. doi:10.1007/s13197-010-0123-0
7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551187/>
8. Cagle, Patrice & Martin, Patrick. (2017). Abstract 3477: Rosehip (*Rosa canina*) extracts prevent AKT-mediated cell proliferation and migration in triple negative breast cancer cells. cancer research. 77. 3477-3477. DOI: 10.1158/1538-7445.AM2017-3477. <https://www.sciencedaily.com/releases/2015/03/150329141007.htm>
9. U. Andersson, K. Berger, A. Högborg, M. Landin-Olsson, and C. Holm. Effects of rose hip intake on risk markers of type 2 diabetes and cardiovascular disease: a randomized, double-

- blind, cross-over investigation in obese persons. Eur J Clin Nutr. May 2012; 66(5): 585–590. DOI: 10.1038/ejcn.2011.203 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3343291/>
10. L. Phetcharat, K. Wongsuphasawat, and K. Winther. The effectiveness of a standardized rose hip powder, containing seeds and shells of *Rosa canina*, on cell longevity, skin wrinkles, moisture, and elasticity. Clin Interv Aging. 2015; 10: 1849–1856. Published online 2015 Nov 19. DOI: 10.2147/CIA.S90092 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4655903/>
11. Akifumi Nagatomo, Norihisa Nishida, Ikuo Fukuhara, Akira Noro, Yoshimichi Kozai, Hisao Sato, and Yoichi Matsuura. Daily intake of rosehip extract decreases abdominal visceral fat in preobese subjects: a randomized, double-blind, placebo-controlled clinical trial. Diabetes Metab Syndr Obes. 2015; 8:147–156. Published online 2015 Mar 6. DOI: 10.2147/DMSO.S78623
12. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4358417/>

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### **Rosehip - useful properties, composition and contraindications**

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