# Rosehip Seed Oil Health and Beauty Benefits

The rose hip or rosehip, also called rose haw and rose hep, is the accessory fruit (fruit that contains tissue derived from plant parts other than the ovary) of the various species of <u>rose</u> plant. It is typically red to orange, but ranges from dark purple to black in some species. Rose hips begin to form after pollination of flowers in spring or early summer and ripen in late summer through autumn.

# PLANT PROPAGATION

Roses are propagated from rose hips by removing the achenes (a type of simple dry fruit produced by many species of flowering plants) that contain the seeds from the hypanthium (the outer coating) and sowing just beneath the surface of the soil.

The seeds can take many months to germinate. Most species require chilling (stratification), with some such as *Rosa canina* (the dog rose, is a variable climbing, wild rose species native to Europe, northwest Africa, and western Asia) only germinating after two winter chill periods.

- Rosa rubiginosa (a species of rose native to Europe and western Asia).
- *Rosa moschata* (the musk rose, is a species of rose which has been long in cultivation. Its wild origins are in southern Iran to Afghanistan).
- *Rosa gymnocarpa* (a species of rose native to western North America. It is known by the common names dwarf rose, baldhip rose, and wood rose. It grows in shady, damp, and rich forests).
- Rosa roxburghii (a species of flowering plant in the family Rosaceae, native to the eastern Himalayas, Tibet, and central and southern China. In the wild, it is found in thickets, mountain forests, on slopes, and alongside streams, typically 500 to 1,400 m above sea level. A diffuse shrub capable of reaching 8 m (26 ft) but usually shorter, it is available from commercial suppliers. In China, it is cultivated for its vitamin C–rich hips on 170,000 ha, mostly in Guizhou).

# **USES FOR ROSEHIPS**

Rose hips are used in bread and pies, jam, jelly, marmalade, syrup, soup, tea, wine and other beverages. Rose hips can be eaten raw, like berries, if care is taken to avoid the hairs inside the fruit. These *urticating* hairs (the primary defense mechanisms used by numerous plants) are used as itching powder.

A few rose species are sometimes grown for the ornamental value of their hips, such as *Rosa moyesii* (a species of flowering plant native to western China in the rose family Rosaceae). *R. moyesii* grows to 13 ft (4 m) tall by 10 ft (3 m) wide, it is a vigorous deciduous shrub, with plentiful matte green leaves and flat red or pink flowers, with yellow central stamens, in summer.

These are followed in autumn by prominent, large, red bottle–shaped fruits. *Rosa macrophylla* (the big hip rose, a species of flowering plant in the family Rosaceae, native to the Himalayan region). There are a few cultivars, including 'Doncasteri', 'Glaucescens', 'Master Hugh', and 'Rubricaulis'. 'Master Hugh' has the largest hips of any readily available rose.

Rose hips are commonly used in herbal tea, often blended with hibiscus (a genus of flowering plants in the mallow family, Malvaceae). Rose hip soup, known as *nyponsoppa*, is especially popular in Sweden. Rhodomel, a type of mead (an alcoholic beverage made by fermenting honey mixed with water, and sometimes fruits, spices, grains, hops), is made with rose hips.

Rose hips can be used to make *pálinka*, the traditional Hungarian fruit brandy (a liquor produced by distilling wine) popular in Hungary, Romania, and other countries sharing Austro–Hungarian history. Rose hips are also the central ingredient of cockta, the fruity–tasting national soft drink of Slovenia.

Dried rose hips are also sold for crafts and home fragrance purposes. The Inupiat (Alaska Natives whose traditional territory spans from Norton Sound on the Bering Sea to the northernmost part of the Canada–U.S. border) mix rose hips with wild redcurrant (*Ribes triste*, a shrub in the gooseberry family) and highbush cranberries (*Viburnum trilobum* a species native to northern North America) and boil them into a syrup.

# ROSE HIP NUTRIENTS

Wild rose hip fruits are particularly rich in vitamin C, containing 426 mg per 100 g or 0.4% by weight. High–performance liquid chromatography (RP–HPLC) assays of fresh rose hips revealed between 0.03%– 1.3% of *L–ascorbic acid* (vitamin C) content. Rose hips contain the <u>carotenoids</u> beta–carotene, lutein, zeaxanthin, and lycopene.

# ROSEHIP SEED OIL

Rosehip seed oil is mechanically extracted from the crushed seeds of wild rose bush *Rosa rubiginosa* (in Spanish: *rosa mosqueta*) in the southern Andes Mountain range using a cold–pressing method. Cold press is a process that helps maintain the nutritional value of the oil. Rosehip seed oil can also be extracted from *Rosa canina* (the dog rose), a wild rose species native to Europe, northwest Africa, and western Asia.

# HISTORY OF ROSEHIP SEED OIL

Rosehips have had <u>multiple medical uses dating back to Hippocrates</u> in ancient Greece. Pliny, the Roman naturalist, attributed the plant's name to a belief that the root could cure the bite of a rabid dog. During World War II, Britain was unable to import citrus fruits, so the government encouraged the gathering of rose hips as a source of vitamin C.

Rosehip extracts are currently used in traditional European folk medicine as diuretic, laxative, for kidney and lower urinary tract disorders, arthritis, gout, fever, colds and for vitamin C deficiency.

# PHYTOCHEMISTRY OF ROSEHIP SEED OIL

Analysis with gas chromatography–mass spectrometry (GC–MS) showed the following major components in rosehip seed oil samples: *Vitispiran*,  $\alpha$ –*E*–*acaridial*, *dodecanoic acid*, *hexadecanoic acid*, *docosane*, *ionone*, 6–methyl–5–hepten–2–one, 2–heptanone, heptanal, myristic acid and linolic acid.

Rosehip seed oil contains significant amounts of the two polyunsaturated essential fatty acids *linoleic acid* (omega–6), *linolenic acid* (omega–3), as well as of the monounsaturated *oleic acid* (omega–9). It also contains antioxidants including  $\delta$ – and  $\gamma$ –tocopherol, carotenoids and phenolic compounds.

Rosehip seed oil does not contain vitamin A; however, it does contain provitamin A (mostly beta– carotene). It also contains *tretinoin* (all–trans retinoic acid). Rosehip seed oil is also a good source of vitamin F, a fatty acid made of *linoleic acid* and *alpha–linoleic acid*.

# ROSEHIP SEED OIL USES

Rosehip seed oil, also known as rosehip seed oil, is harvested from the seeds of rose bushes, and it is packed with nutrients. Rosehip seed oil has long been a popular skin oil because it is non-comedogenic compared to other oils marketed for use on the face and neck.

A <u>2014 article</u> published in the <u>International Journal of Food Properties</u> on the study of the nutrition and phytochemical composition of rosehips and the fatty acid and sterol compositions of the oil showed the presence of bioactive compounds that make rosehips and rosehip seed oil a valuable source of phytonutrients. Consumption of phytonutrient—rich foods is recommended to reduce the risk of chronic disease.

The study showed that rosehips are high in carbohydrates and ascorbic acid, and that rosehip seed oil is rich in polyunsaturated fatty acids and phytosterols. Rosehips and rosehip seed oil prove to have antioxidant activity. The findings of the study indicated that rose hips and rosehip seed oil may be proposed as ingredients in functional food formulations and dietary supplements.

## The Difference Between Rose Essential Oil and Rosehip Seed Oil

Rose essential oil is extracted from the petals of various species of rose. It's rich in essential oils and is renowned for its fragrant aroma. This oil is primarily used for its scent and is believed to have therapeutic properties.

In contrast, rosehip seed oil is distilled from the seeds and fruits of the rose plant, typically the *Rosa canina* or *Rosa rubiginosa* species. <u>Rosehip seed oil</u> is considered a carrier oil rather than an essential oil. Unlike rose essential oil, rosehip seed oil is packed with vitamins, antioxidants, and essential fatty acids. It is widely used for hydrating dry skin, fading scars and fine lines, and promoting skin regeneration.

# THE HEALTH AND BEAUTY BENEFITS OF ROSEHIP SEED OIL

Rosehip seed oil is popular in skincare due to <u>recent advances and insights</u> into the bioactive properties and applications of *Rosa canina L*. and its by–products confirming its benefits across all skin types. A <u>2024 review of studies</u> unveiled rosehip seed oil is a perfect candidate for the development of skincare formulations that can be effectively used in the treatment of different skin disorders (i.e., scarring, anti– aging, hyperpigmentation, wrinkles, melasma, and atopic dermatitis). Read about the <u>health and beauty</u> <u>benefits of rosehip seed oil</u> to learn more.

## **REDUCES INFLAMMATION**

Rosehip seed oil is rich in vitamins A, C, E, *anthocyanin* (the pigment that gives darker–colored fruits and vegetables their hues) and essential fatty acids. These fatty acids have anti–inflammatory properties.

A <u>2003 study</u> found rosehips are a great source of *lycopene*. Lycopene is an antioxidant that helps protect the skin from free radical damage. A <u>2018 review of four studies</u> found that lycopene–rich products can help protect skin from UV rays. Rosehip seed oil can help speed–up recovery of first–degree burns and can be used as a protective barrier to prevent or treat diaper rash.

# TREATS ECZEMA

Eczema is inflammation of the skin that can cause itching and redness. Rosehip seed oil contains phenols that possess antibacterial properties that help alleviate skin conditions like eczema. The oil or a cream containing the oil can also treat eczema by moisturizing and repairing the skin barrier.

Rosehip seed oil also contains vitamin E, an antioxidant with anti–inflammatory properties. Rosehip seed oil may help calm irritation resulting from skin conditions such as rosacea, psoriasis, eczema and dermatitis.

# ANTIAGING

Rosehip seed oil is rich in vitamins A and C, both antioxidants. Rosehips are thought to contain more vitamin C than oranges and lemons. Vitamins A and C help stimulate collagen and improve the appearance of fine lines and wrinkles. Vitamin A also reduces *hyperpigmentation* (dark spots).

A <u>2012 review article</u> shows vitamin C may help reduce ultraviolet (UV) light damage caused by free radicals. Finally, vitamin C promotes wound healing and helps hydrate dry skin. Rosehip seed oil is rich in essential fatty acids and antioxidants, which are integral for tissue and cell regeneration in the skin.

One <u>2015 study</u> on the oral consumption of rosehips powder showed a significant reduction in the appearance of fine lines around the eyes after 8 weeks of treatment.

In a separate 2015 study, participants with post–surgical scars treated their incision site twice per day with topical rosehip seed oil. After 12 weeks of use, the group using the treatment experienced significant improvements in scar color and inflammation compared to the control group.

## PROTECTS AGAINST SUN DAMAGE

Cumulative damage from a lifetime of exposure to the sun plays a major role in premature aging. Ultraviolet (UV) exposure can also interfere with the body's ability to produce collagen. The antioxidant vitamins A and E in *Rosa multiflora* hip extract have shown an <u>inhibitory effect on UVB–induced skin</u> <u>photoaging</u>, although rosehip seed oil shouldn't be used in place of sunscreen.

According to a <u>2017 review</u> published in the *International Journal of Molecular Sciences*, the phenols and tocopherols in rosehip seed oil exhibit antioxidant properties and may modulate physiological processes such as skin barrier homeostasis, inflammation and wound healing.

#### LIGHTENS HYPERPIGMENTATION

Hyperpigmentation occurs when excess melanin forms dark spots or patches on the skin. This can result from several factors, including sun exposure, hormonal changes, such as with pregnancy or menopause, and certain medications, including birth control pills and chemotherapy drugs. <u>Animal studies</u> indicate that rosehip extract contains melanin–reducing properties which may prove beneficial for use on humans.

Rosehip seed oil is rich in vitamin A, which is made up of several nutritional compounds, including retinoids. Retinoids are known to reduce hyperpigmentation and other visible signs of aging with regular use. Rosehip seed oil also contains lycopene and beta carotene, both of which are said to have skin–lightening properties.

#### **EXFOLIATES AND BRIGHTENS SKIN**

Vitamin A (retinol) in rosehip seed oil encourages skin cell turnover. The astringent properties in rosehip seed oil help tighten your pores and brighten your skin. Like sugar and sea salt, rosehip seed oil can work as a natural exfoliator when combined with baking soda.

For an even skin tone, the trio of vitamins A, C and E in rosehip seed oil work together to support better skin tone. Consider adding rosehip seed oil to your routine as a face wash.

#### **PREVENTS STRETCH MARKS**

One <u>2012 randomized</u>, <u>double-blind</u>, <u>controlled trial</u> studied a cream containing rosehip seed oil and vitamin E for preventing or reducing the severity of *striae gravidarum* (stretch marks). The cream proved to be effective in reducing severity of the striae during pregnancy, preventing the appearance of new striae and halting progression of striae already present. In women who had no striae at baseline, use of the anti-stretch mark cream was more effective than placebo in preventing new stretch marks.

#### PROMOTES WOUND HEALING AND FADES SCARS

Vitamins A and C, and anti–inflammatory fatty acids make rosehip seed oil a potential solution for fading facial scars or marks. Together, these compounds help undo and prevent oxidative damage. The results of a <u>2019 animal study research</u> showed that rosehip seed oil significantly promoted wound healing and effectively improved scars. This efficacy might be exerted by accelerating the macrophage phenotypes transition and inhibiting the process of epithelial–mesenchymal transition (formation of scar tissue).

A <u>2015 clinical trial</u> suggests that this oil may also improve the texture and appearance of post–surgical scars. This study demonstrates that rosehip seed oil is useful for cosmetic improvement on erythema, discoloration and atrophy of post–surgical skin scars, getting a better overall evolution and appearance of the tissue.

## IMPROVES ACNE

Rosehip seed oil can help improve inflammatory acne and clear up acne scars. It can be used on your face and body, and you can find formulas containing rosehip seed oil that are noncomedogenic (won't clog your pores).

Rosehip seed oil or a cream containing rosehip seed oil may help treat acne caused by clogged pores. Rosehips contain *trans retinoic acid*, a retinoid. Retinoids regulate cell turnover in such a way that reduces follicular plugging and the formation of blackheads. Rosehip seed oil also contains linoleic acid, a fatty acid that can prevent acne and shrink pimples.

## MOISTURIZES SKIN

Hydration is essential for healthy skin. Keeping skin hydrated can become more difficult during extreme weather or as skin ages. Rosehip seed oil contains essential fatty acids like *linoleic* and *linolenic acid*. Linoleic acid is an essential component of ceramides, the skin's main moisturizing element.

Fatty acids help keep cell walls strong, so they don't lose moisture. When choosing rosehip seed oil for skin care, choose one obtained through cold press so that that the nutrients are not lost during the oil extraction process.

A <u>2015 study</u> using rosehip powder suggested that rosehips helped keep skin moisturized. Researchers found that participants who took rosehip powder orally experienced noticeable improvements in their skin's overall moisture and a noticeable increase in skin elasticity.

# BOOSTS COLLAGEN FORMATION

Collagen is essential for maintaining skin's firmness and elasticity. The body produces less of it with age. Rosehip seed oil is rich in vitamin A, which is necessary to produce collagen. In both animal and human studies <u>rose hip powder, containing seeds and shells of *Rosa canina* was shown to inhibit the creation of MMP–1, an enzyme that breaks down collagen in the body.</u>

## HAIR CARE TREATMENT

Rosehip seed oil can be used as a hair treatment to promote hydration deep within the follicle. Its benefits for hair include moisturizing and nourishing the scalp, promoting hair growth and preventing hair loss. It can also help reduce inflammation and dandruff. Rosehip seed oil can be used on dry and brittle hair to provide moisture, rebuild strands, promote shine and control frizz.

## **Relieves** Osteoarthritis

Rosehips are a folk remedy for arthritis and joint pain. A <u>2008 review of studies</u> focusing on the benefits of rosehip powder showed reduced osteoarthritis pain better than placebo with no adverse side effects. Osteoarthritis is a type of degenerative joint disease that breaks down joint cartilage and underlying bone.

Although using rosehips is not considered an effective treatment for knee osteoarthritis, the antiinflammatory benefits of rosehip seed oil may make it a good option for people who cannot take nonsteroidal anti-inflammatory drugs (NSAIDs) or other pain medicines.

# THERAPEUTIC USES OF ROSEHIP SEED OIL

Rosehip seed oil contains phenols that have shown antiviral, antibacterial and antifungal properties. It should be safe to apply a few drops of rosehip seed oil up to twice per day, although this is dependent on your skin type and use of other skincare products.

The oil can be used on its own, or you can add a few drops to another carrier oil or your favorite moisturizer. Remember to always apply sunscreen with at least SPF 30 while using rosehip seed oil (reapply every two hours, after swimming or sweating). Rosehip seed oil exfoliates the skin making it more vulnerable to UV damage.

While rosehip products are mostly found in oil form, rosehips may also be used in creams, powders, and teas. Apply any toners, essences and serums first. Rosehip seed oil should go before any cream moisturizer or sunscreen. Results can vary, so you'll need to be patient and consistent. Many people notice improved hydration and radiance within a few weeks. For scars and hyperpigmentation, consistent use for 8–12 weeks is best.

- 1. Face Moisturizer: apply a few drops to your face and massage gently into the skin, 1–2 times a day.
- 2. **Body Moisturizer:** apply drops directly on the skin and massage it in, using light, circular motions for 2–3 minutes to ensure full absorption. The oil can be applied once or twice a day, mainly in drier areas of the skin, or in areas with scars, stretchmarks or wrinkles. To prevent stretch marks, it can be applied at least twice a day, or as directed by a dermatologist.
- 3. **Hair Treatment:** apply a small amount to the scalp and massage in for a few minutes. Leave on for at least 30 minutes or overnight, then wash out with shampoo. Alternatively, you can add a few drops of rosehip seed oil to your conditioner or hair mask for added benefits.
- 4. For Aromatherapy: blend a few drops of essential oils with 1 oz. of rosehip seed oil and apply topically.

# PRECAUTIONS

Rosehip seed oil is available as a 100% pure oil in some health food stores and online. Rosehip seed oil can be applied topically. When buying rosehip seed oil, be sure to purchase a high–quality, 100 percent organic, pure–grade product that's made by a trustworthy and reputable company. Rosehip seed oil can be applied directly to your skin when used in its pure form or used as a carrier oil for other facial oils.

If you buy unrefined or raw rosehip seed oil, be careful when applying it as these can be rich in color. And that color can stain your hands, body and clothes. If you'd like to avoid this, try an organic, cold– pressed option. Experts at the <u>University of Minnesota</u> recommend that you check the label for the Latin name of the plant and the country of origin when purchasing rosehip seed oil. When selecting rosehip seed oil, choose a product from a known manufacturer to be sure the product is safe from pesticides.

If you have rosebushes in your yard, consider leaving some of them unpruned. Harvest the rosehips and break them open to examine the fruit. You may even want to use a handful to brew a cup of tea or make your own <u>homemade rosehip seed oil</u>.

In any form, rosehip seed oil should never be used on broken or damaged skin. Do not apply directly to open wounds. Never use rosehip seed oil in eyes or in mucous membranes. When applying rosehip seed oil topically (on your skin), always perform a 24–hour skin patch test first using 1–2 drops, <u>read how for further details</u>.

Rosehip seed oil can have a long shelf life if stored properly in tightly–sealed dark glass bottle. Store in a cool and dry place. Prevent exposure to extreme heat and cold temperatures. Most brands need refrigeration to prevent spoilage. Keep out of reach of children.

## **DRUG INTERACTIONS**

If you're on blood–clotting medication or have upcoming surgery, it's best to avoid using rosehip seed oil at least 14 days before the procedure.

## CONTRAINDICATIONS

Excessive use of rosehip seed oil may also cause side effects in some individuals, including complications of pregnancy, gastrointestinal distress, bleeding problems, inflammation, gas, headaches and diarrhea. Although uncommon, rosehip seed oil may cause an allergic reaction in women who are pregnant or breastfeeding. If you experience symptoms like rash, hives or swelling after using rosehip seed oil, discontinue use immediately.

Always consult with a healthcare professional before using rosehip seed oil if you're taking medications or have preexisting health conditions. In some instances, vitamin C can be harmful. For conditions such as diabetes (vitamin C may impact blood sugar control), kidney stones (in large amounts, vitamin C may increase the risk of kidney stones), anemia (vitamin C may impact iron absorption), do not use rosehip seed oil without your doctor's approval:

individuals with plant or seed allergies to roses, rosehip, or similar plants should avoid or exercise extreme caution when using rosehip seed oil. Side effects of topical rosehip seed oil use are rare, though an allergic reaction is possible.

Allergic reaction symptoms may include rash or hives, red itchy skin, scratchy throat, difficulty breathing, rapid heartrate, dizziness, congestion, itchy watery eyes, wheezing, chest discomfort, nausea, vomiting and anaphylaxis. In case of anaphylaxis, seek immediate medical attention if you have trouble breathing, wheezing, swollen mouth, throat, or face, rapid heartbeat or stomach pain.

Use essential oils with extreme caution on children. Some brands clearly label their essential oils "KidSafe" on the bottle if it can be used on children ages 2–10.