

# Eucalyptus Essential Oil Health and Beauty Benefits

Eucalyptus essential oil is the generic name for oil extracted from the leaves of [Eucalyptus, a genus of more than 700 species of flowering plants in the family Myrtaceae](#) endemic to Australia (hello, cute koalas munching on eucalyptus leaves). It is also native to Tasmania and nearby islands, and cultivated worldwide. Myrtaceae is a family of dicotyledonous plants placed within the order Myrtales (myrtles).

Myrtle, pōhutukawa, bay rum tree, clove, guava, acca (feijoa), allspice, and [eucalyptus are some notable members of this group](#). All species are woody, contain [essential oils](#), and have flower parts in multiples of four or five.

The [Journal of the Science of Food and Agriculture](#) has documented more than a dozen species of eucalyptus trees used to obtain the essential oil, each of which offers its own unique blend of natural compounds and therapeutic benefits.

Most species of *Eucalyptus* are trees, often mallees and a few are shrubs. Along with several other genera in the tribe *Eucalyptae*, including *Corymbia* and *Angophora*, they are commonly known as *eucalypts*. There are more than 500 *eucalypti* species.

Plants in the genus *Eucalyptus* have bark that is either smooth, fibrous, hard or stringy, the leaves have oil glands, and the sepals and petals are fused to form a "cap" or *operculum* over the stamens. The fruit is a woody capsule commonly referred to as a "gumnut".

[Eucalyptus essential oil](#) has a history of wide applications, as a pharmaceutical, antiseptic (an antimicrobial substance), insect repellent, flavoring, fragrance and industrial uses.

## Eucalyptus Essential Oil

Eucalyptus essential oil is made by drying and crushing the leaves of selected eucalyptus tree species. The extraction method best able to maintain the highest concentration and widest variety of useful compounds in this essential oil is cold extraction, often using CO<sub>2</sub>. Steam distillation and other methods using high heat or chemicals won't yield the same concentration of beneficial compounds.

Steam distillation is a separation process consisting of distilling water together with other volatile and non-volatile components. The steam from the boiling water carries the volatiles vapor to a condenser; both are cooled and return to their liquid state, while the non-volatile residues remain behind. Aside from extracting their essential oils, the bark of the eucalyptus tree is used for papermaking and the wood is used in Australia as fuel and timber.

Traditionally, eucalyptus essential oil was used as an analgesic agent that helped to relieve pain, and it was valued for its ability to [reduce inflammation and improve respiratory conditions](#). Today, eucalyptus essential oil benefits and uses are extensive, and the oil is commonly used in healing ointments, perfumes, vapor rubs and cleaning products.

## Oil Types and Production

Eucalyptus essential oils in the trade are categorized into three broad types according to their composition and main end-use: medicinal, perfumery and industrial. The most prevalent is the standard *cineole*-based "oil of eucalyptus" ([eucalypto!](#)), a monoterpenoid colorless mobile liquid (yellow with age), and a bicyclic ether with a penetrating, fresh camphor-like, woody-sweet scent and a spicy, cooling taste.

China produces about 75% of the world trade, but most of this is derived from the cineole fractions of camphor laurel (*Camphora officinarum*) rather than being true eucalyptus essential oil. Significant

producers of true eucalyptus include South Africa, Portugal, Spain, Brazil, Australia, Chile, and Eswatini (formerly Swaziland).

Global production is dominated by *Eucalyptus globulus*. However, *Eucalyptus kochii* and *Eucalyptus polybractea* have the highest cineole content, ranging from 80 to 95%. The *British Pharmacopoeia* (the national pharmacopoeia, annual published collection of quality standards for medicinal substances in the UK) states that the oil must have a minimum cineole content of 70% if it is pharmaceutical grade.

Rectification is often used to bring lower grade oils up to the high cineole standard required. A “rectified” spirit is a highly concentrated ethanol that has been purified by means of repeated distillation.

In 1991, global annual production was estimated at 3,000 tonnes for the medicinal eucalyptus essential oil with another 1,500 tonnes for the main perfumery oil (produced from *Eucalyptus citriodora*). The eucalyptus genus also produces non–cineole oils, including *piperitone*, *phellandrene*, *citral*, *methyl cinnamate* and *geranyl acetate*.

### **Herbal Medicine**

The [European Medicines Agency](#) (EMA) [Committee on Herbal Medicinal Products](#) (HMPC) concluded that traditional medicines based on eucalyptus essential oil can be used for treating cough associated with the common cold, and to relieve symptoms of localized muscle pain.

### **Repellent and Biopesticide**

Cineole–based eucalyptus essential oil is used as an insect repellent and biopesticide. A [2008 article in \*Forest Ecology and Management\*](#) explored the efficacy of eucalyptus essential oil as a natural pesticide. In the U.S., eucalyptus essential oil was first registered in 1948 as an insecticide and miticide (kills ticks and mites).

### **Flavoring and Fragrance**

Eucalyptus essential oil is used in flavoring. Cineole–based [eucalyptus essential oil is used as a flavoring](#) at low levels (0.002%) in various products, including baked goods, confectionery, meat products and beverages.

Eucalyptus essential oil has antimicrobial activity against a broad range of foodborne human pathogens (an organism that can produce disease) and food spoilage microorganisms. Non–cineole peppermint gum (*Eucalyptus dives*), strawberry gum (*Eucalyptus olida*) and lemon ironbark (*Eucalyptus staigeriana*) are also used as flavoring.

Eucalyptus essential oil is also used as a fragrance component to impart a fresh and clean aroma in soaps, detergents, lotions, and perfumes. Due to its cleansing properties, eucalyptus essential oil is often found in mouthwash.

### **Industrial**

Research shows that cineole–based eucalyptus essential oil (5% of mixture) prevents the separation problem with ethanol and petrol (gasoline) fuel blends. Eucalyptus essential oil also has a respectable octane rating (the standard measure of a fuel's ability to withstand compression in an internal combustion engine without detonating) and can be used as a fuel in its own right. However, production costs are currently too high for the oil to be economically viable as a fuel.

*Phellandrene*– and *piperitone*–based eucalyptus essential oils have been used in mining to separate sulfide minerals via froth flotation, a process for selectively separating hydrophobic from hydrophilic materials.

## Cleaning

Eucalyptus essential oil is used in household cleaning applications. It is commonly used in commercial laundry products such as wool wash liquid. It is used as a solvent for removing grease and sticky residues.

## Safety and Toxicity

If consumed internally at low dosage as a flavoring component or in pharmaceutical products at the recommended rate, cineole-based "oil of eucalyptus" is safe for adults. However, systemic toxicity can result from ingestion or topical application at higher than recommended doses.

In Australia, eucalyptus essential oil is one of the many essential oils that have been increasingly causing cases of poisoning, mostly in children. There were 2,049 reported cases in New South Wales (a state on the east coast of Australia) between 2014 and 2018, accounting for 46.4% of all essential oil poisoning incidents.

The probable lethal dose of pure eucalyptus essential oil for an adult is in the range of 0.05 mL to 0.5 mL per kg of body weight. Because of their high body-surface-area-to-mass ratio, children are more vulnerable to poisons absorbed transdermally. Severe poisoning has occurred in children after ingestion of as little as 4 mL to 5 mL of eucalyptus essential oil.

## The History of Eucalyptus

Australian Aboriginals (Indigenous peoples) use eucalyptus leaf infusions (which contain eucalyptus essential oil) as a traditional medicine for treating body pains, sinus congestion, fever, and cold and flu symptoms.

One story tells of an early British settler in Australia whose thumb was almost severed by a blow from an ax. The settler's father, who was familiar with Aboriginal tradition, ensured that the wound was bound in eucalyptus leaves after being sutured.

A surgeon who saw the patient later remarked that he was amazed at the speed of healing and the lack of infection in the wound. Stories like this spread rapidly throughout the country prompting pharmacists to begin considering eucalyptus' medicinal value.

Dennis Coninden and John White, surgeons on the First Fleet (a fleet of 11 British ships: two Royal Navy vessels, three store ships and six convict transports) that brought the first British colonists and convicts to Australia, distilled eucalyptus essential oil from *Eucalyptus piperita* found growing on the shores of Port Jackson (consisting of the waters of Sydney Harbor, Middle Harbor, North Harbor, and the Lane Cove and Parramatta Rivers) in 1788 to treat convicts and marines.

Eucalyptus essential oil was subsequently extracted by early colonists. Though it would not be commercially produced until 1852. Baron Sir Ferdinand Jacob Heinrich von Mueller, was a Victorian German-Australian physician, geographer and botanist, promoted the qualities of eucalyptus as a disinfectant in "fever districts".

Baron von Mueller also encouraged Joseph Bosisto (CMG, MLA JP), a politician in colonial Melbourne (the capital of the Australian state of Victoria) and chemist, to investigate the commercial potential of the oil. Bosisto started the commercial eucalyptus essential oil industry in 1852 near Dandenong (a southeastern suburb of Melbourne) in Victoria (a state in southeastern Australia), when he set up a distillation plant.

In this factory, he extracted the essential oil from the cineole chemotype (a chemically distinct entity in an organism, with differences in the composition of the secondary metabolites) of *Eucalyptus radiata*.

This resulted in the cineole chemotype becoming the generic “oil of eucalyptus”. “Bosisto's Eucalyptus Oil” still survives as a brand.

French chemist, François Stanislas Cloez identified and ascribed the name *eucalyptol* to the dominant portion of *E. globulus* essential oil. By the 1870s oil from Tasmanian blue gum (*Eucalyptus globulus*), was being exported worldwide and eventually dominated world trade. Other higher quality species were also distilled, but to a lesser extent. Surgeons were using eucalyptus essential oil as an antiseptic during surgery by the 1880s.

Eucalyptus essential oil became an important industry in the box–ironbark forests (an ecosystem that is largely limited to central Victoria in south–eastern Australia) during the post Victorian gold rush period (between 1851 and the late 1860s).

The oil was often described as “Australia's natural wonder” and was exported to a growing international market, mostly for medicinal purposes. Eucalyptus essential oil was in particularly big demand during the global influenza pandemic of 1918–19 (*Spanish flu*). A distillation plant was established by the [Forests Commission Victoria](#) (FCV) at Wellsford State Forest near Bendigo in 1926.

Edwin James Semmens MBE, the Principal (from 1928 to 1951) of the [Victorian School of Forestry](#) (VSF), established in October 1910 at Creswick, in the Australian state of Victoria, undertook much of the pioneering chemistry into the composition of eucalyptus essential oil. His steam extraction kilns still exist in the museum at the school.

The Australian eucalyptus essential oil industry peaked in the 1940s, the main area of production being the central goldfields region of Victoria, particularly in the town of Inglewood, located on the Calder Highway in the Shire of Loddon; and then the global establishment of eucalyptus plantations for timber resulted in increasing quantities of eucalyptus essential oil as a plantation by–product.

By the 1950s the cost of producing eucalyptus essential oil in Australia had increased so much that it could no longer compete against cheaper Spanish and Portuguese essential oils (closer to European markets and therefore less costly). Non–Australian sources now dominate the commercial eucalyptus essential oil supply, although Australia continues to produce high grade essential oils, mainly from the blue mallee (*Eucalyptus polybractea*).

### **The Many Species Varieties**

Commercial cineole–based eucalyptus essential oils are produced from several species of *Eucalyptus*:

- *Eucalyptus cneorifolia*
- *Eucalyptus dives*
- *Eucalyptus dumosa*
- *Eucalyptus globulus*
- *Eucalyptus goniocalyx*
- *Eucalyptus horistes*
- *Eucalyptus kochii*
- *Eucalyptus leucoxyton*
- *Eucalyptus oleosa*
- *Eucalyptus polybractea*
- *Eucalyptus radiata*
- *Eucalyptus sideroxyton*
- *Eucalyptus smithii*
- *Eucalyptus tereticornis*

- *Eucalyptus viridis*

Non-cineole oil producing species:

- *Eucalyptus dives*—phellandrene variant
- *Eucalyptus dives*—piperitone variant
- *Eucalyptus elata*—piperitone variant
- *Eucalyptus macarthurii*—geranyl acetate
- *Eucalyptus olida*—methyl cinnamate
- *Eucalyptus radiata*—phellandrene variant
- *Eucalyptus staigeriana*—citral, limonene

The former lemon eucalyptus species *Eucalyptus citriodora* is now classified as *Corymbia citriodora*, which produces a *citronellal* (or *rhodinal*) based oil, a monoterpenoid aldehyde.

“Olbas Oil”, a combination of oils from eucalyptus, peppermint, clove, juniper, [cajuput](#) and wintergreen is used as a treatment for nasal congestion.

### The Phytochemistry of Eucalyptus Essential Oil

*Eucalyptol*, or *1,8-cineole* accounts for 70–90 percent of the components of eucalyptus essential oil. There are over 70 [clinical trial studies and review articles](#) conducted on the safety and efficacy of essential oils, including eucalyptus, for antibacterial treatments.

The primary compounds differ slightly depending on whether the essential oil is derived from *Eucalyptus radiata* or *Eucalyptus globulus*. These days most of the eucalyptus essential oil on the market is derived from *Eucalyptus globulus* and the vast majority of studies published have used the oil from this species.

***Eucalyptus globulus* essential oil composition:** *1,8-cineole* (33.6%–83.9%), *alpha-pinene* (4.5%–14.2%), *d-limonene* (0.4%–10.1%), *beta-pinene* (0.3%–5.2%) and *para-cymene* (0.0%–5.1%).

***Eucalyptus radiata* essential oil composition:** *1,8-cineole* (22.4%–74.3%), *alpha-terpineol* (0.0%–15.2%), *alpha-pinene* (0.2%–11.9%), *trans-pinocarveol* (0.0%–4.8%) and *limonene* (0.5%–4.5%).

### The Health and Beauty Benefits of Eucalyptus Essential Oil

Eucalyptus essential oil is one of the best essential oils for treating sore throats, cough, seasonal allergies and headaches. Eucalyptus essential oil offers a wide range of therapeutic properties. These include analgesic, antibacterial, antiseptic, antifungal, antispasmodic decongestant, diuretic, expectorant and nervine. A [2018 study](#) found that its “broad-spectrum antimicrobial action make it an attractive alternative to pharmaceuticals.”

#### 1. Improves Respiratory Conditions

Eucalyptus is one of the most effective essential oils against a range of respiratory conditions, including chronic obstructive pulmonary disease (COPD), asthma, bronchitis, sinusitis, cough, and cold and flu symptoms. Based on [research dating back to 1983](#), eucalyptus essential oil vapor improved nasal resistance to airflow and nasal sensation of airflow.

In a [2013 placebo-controlled double-blind trial](#) the *1,8-cineole* in eucalyptus proved a great natural treatment for common respiratory issues, such as cough, sore throat, phlegm, nasal congestion, respiratory infections, bronchitis, headaches stemming from *rhinosinusitis* (sinus pressure), asthma, and symptoms related to chronic obstructive pulmonary disease (COPD).

A [research study in 2004](#) shows that essential oil from *Eucalyptus globulus*, of which *1,8-cineole* is the major active ingredient, helps to reduce the inflammatory effect of chronic bronchitis and inhibits the hypersecretion of airway mucins in animal studies.

A randomized [2010 study published in Evidence-Based Complementary and Alternative Medicine](#) evaluated the treatment of upper respiratory tract infections using aromatic herbs. The trial was conducted in clinics in Israel and participants were treated with an essential oil blend that included eucalyptus, peppermint, oregano and rosemary.

Those in the experimental group applied the essential oil blend as a spray 5 times a day for 3 days compared to a placebo spray. Twenty minutes after using the spray, those in the essential oil group reported a greater improvement of sore throat, hoarseness and cough symptom severity compared to those in the placebo group.

Eucalyptus essential oil is an “expectorant”, it can help loosen mucus from your chest. There is a good chance that you have already used eucalyptus essential oil since it is one of the ingredients in Vicks “VapoRub”, which contains about 1.2 percent eucalyptus essential oil in combination with other ingredients.

## **2. Immune System Boost**

A robust immune system is key to overall good health. Boosting your immune system means you are less likely to contract illnesses like a cold or the flu, especially during the winter months. Routinely taking over-the-counter supplements like [vitamin C can also help relieve cold symptoms](#).

One [study published in 2008](#) demonstrated that eucalyptus essential oil helped boost the immune system by stimulating the immune response at a cellular level. This essential oil can affect “phagocytic ability of human monocyte derived macrophages” (can stimulate the actions of white blood cells against foreign pathogens).

## **3. Improves Asthma Symptoms**

Eucalyptus essential oil may help people with asthma overcome many of the familiar symptoms, including shortness of breath, coughing, and tightness in the chest. According to one [double-blind placebo-controlled trial in 2003](#), *1,8-cineole*, the major component in eucalyptus essential oil, suppressed arachidonic acid metabolism and cytokine production in human monocytes.

Thirty-two patients using oral steroids to control their severe asthma were administered 200 mg or placebo in small gut soluble capsules for 12 weeks. Researchers observed reductions in oral steroid use in 36% of the group receiving treatment vs. a decrease of only 7% in the placebo group. This study adds a new rationale for the use of eucalyptus essential oil as a mucolytic agent in upper and lower airway disease.

## **4. Relieves Coughs**

A [placebo-controlled double-blind trial conducted in 2013](#) investigated the efficacy of *1,8-cineole*, one of the main compounds in eucalyptus essential oil, on patients with acute bronchitis. Patients who were administered 600 mg a day for 10 days experienced significant improvements of bronchitis symptoms compared to those receiving a placebo.

*1,8-cineole* has *mucoytic* (loosens mucus), *bronchodilating* and anti-inflammatory properties that ameliorate symptoms in patients with asthma and rhinosinusitis. Patients receiving cineole had significantly fewer cough fits after just four days of treatment.

## **5. Improves Seasonal Allergies**

Components of eucalyptus essential oil, such as *eucalyptol* and *citronellal*, have anti-inflammatory and immunomodulatory effects, which is why the oil is often used to relieve seasonal allergy symptoms.

A [2008 animal study published in BMC Immunology](#) found that eucalyptus essential oil not only exhibits antiseptic, antimicrobial and anti-inflammatory properties, but it may also have immuno-regulatory effects. This can help to alter the immune response that occurs when the body comes into contact with an allergen.

One [2016 study](#) and another [study in 2015](#) have demonstrated that eucalyptus essential oil is a powerful natural weapon against sinusitis and sinus infections.

## 6. Fights Infections

Eucalyptus essential oil and its main component, *eucalyptol*, have antimicrobial effects against many strains of bacteria, viruses and fungi. A [2012 lab study published in the Asian Pacific Journal of Tropical Biomedicine](#) found that eucalyptus essential oil displayed inhibitory effects against *Escherichia coli* (E. coli) and *Staphylococcus aureus* (staph).

A [2016 study](#) found that essential oil extracted from *Eucalyptus camaldulensis*—a plant species in the *Eucalyptus* genus—may help antibiotics work better against multi-drug resistant bacteria.

Another [2006 study](#) explored the antibacterial activity of *E. globulus* leaf extract against *Staphylococcus aureus*, *Streptococcus pyogenes*, *Streptococcus pneumoniae* and *Haemophilus influenzae* obtained from 200 clinical specimens of patients with respiratory tract disorders.

The *Haemophilus influenzae* [bacteria is the cause of many different kinds of infections](#) including *pneumonia* (lung infection), bloodstream infections, *meningitis* (swelling of the lining of the brain and spinal cord), *epiglottitis* (swelling in the throat), *cellulitis* (skin infection) and Infectious arthritis (inflammation of the joints). *H. influenzae* can also be a common cause of ear infections in children and bronchitis in adults.

Eucalyptus essential oil has powerful anti-fungal properties making it an excellent natural treatment for fungal infections. Common fungal infections include athlete's foot, jock itch, thrush, yeast (*candida*) and *onychomycosis* (the common nail fungus).

A [study published in 2015](#) was conducted to analyze the effects of eucalyptus essential oil on toenail fungus. It proved a cheap and safe alternative to prescription anti-fungal medications.

A [study published in 2018](#) evaluated the antifungal properties of clove, lavender and eucalyptus essential oils against a range of fungal species isolated from environmental air. Samples were tested in a diffusion assay on malt extract agar, compared with vinegar, bleach and limonene, with phenol as a positive control. All the essential oils tested were effective in reducing fungal growth in the air. Clove essential oil was found to be the most efficacious.

## 7. Reduces Pain and Inflammation

One eucalyptus essential oil benefit is its ability to relieve pain and reduce inflammation. When it's used topically on the skin, eucalyptus can help to reduce muscle pain, soreness and swelling. A [randomized clinical trial published in 2013 in Evidence-Based Complementary and Alternative Medicine](#) investigated the effects of inhaling eucalyptus essential oil on pain and inflammatory responses after total knee replacement surgery.

Patients inhaled either eucalyptus essential oil or sweet almond oil for 30 minutes during rehabilitation on 3 consecutive days. Pain scores on all 3 days, as well as systolic and diastolic blood pressure levels on

the second day were significantly lower in the eucalyptus group. Other over-the-counter supplements like [melatonin may help relieve some anxiety](#) before a procedure.

The analgesic and anti-inflammatory properties found in eucalyptus essential oil make it an excellent choice for treating pain and inflammation associated with a variety of conditions, like carpal tunnel syndrome or tennis elbow. It may also be helpful to people experiencing back pain or those recovering from a joint or muscle injury.

Eucalyptus essential oil also has antispasmodic and vasodilatory effects meaning it can help relax and improve blood circulation to your muscles. In fact, many popular over-the-counter creams and ointments used to soothe pain from conditions like osteoarthritis and rheumatoid arthritis contain this essential oil. Diets rich in omega-3 fatty acids from fish oil and foods like salmon and tuna can also help people with [rheumatic arthritis \(RA\) pain](#).

#### **8. Febrifuge: Lowers a Fever**

Eucalyptus essential oil is an effective natural remedy for fevers. It helps reduce body temperature because of its anti-inflammatory action and its vasodilator properties. A vasodilator helps open blood vessels allowing blood to circulate more freely.

#### **9. Alleviates a Headache**

A [2004 double-blind, randomized, placebo-controlled trial](#) found that treating acute rhinosinusitis with *1,8-cineole* helped ameliorate symptoms such as frontal headache, sensitivity of nerve pressure points, nasal obstruction and secretion. The differences between both treatment and placebo groups were clinically relevant and statistically significant after 4 and 7 days.

Eucalyptus essential oil has anti-inflammatory and analgesic effects making it one of the best essential oils for headaches because it can alleviate sinus pressure. This neurophysiological effect seems to be most [pronounced when eucalyptus essential oil is combined with peppermint essential oil](#) and diluted in a carrier.

#### **10. Aids Wound Healing**

According to a [2017 review that evaluated the use of essential oils as alternative medicine](#) for dermatological conditions, eucalyptus essential oil has proven to be effective against blisters, boils, cuts, cold sores, acne, insect bites, shingles, sores, ulcers, wounds, abscesses, athlete's foot and bacterial *dermatitis*. It has antibacterial, antimicrobial, antiseptic, antiviral and antifungal properties, making it a powerful tool against a range of skin conditions.

A [2019 review of studies](#) evaluated the efficacy of eucalyptus and other essential oils in enhancing biopolymers performance used in skin regeneration for wound healing. Experimental wounds in rodents showed faster closure rate, better collagen deposition and enhanced fibroblasts proliferation. In blends with biopolymers, eucalyptus and other essential oils combined with chitosan, alginate, gelatin or collagen, were processed to give active films or nanofibers, with antioxidant, anti-inflammatory and antimicrobial activities.

The aim of a [2018 study published in the \*International Journal of Nanomedicine\*](#) was the development of lipid nanoparticles (solid lipid nanoparticles and nanostructured lipid carriers) to be loaded with eucalyptus or rosemary essential oils and to be used, as medical devices, to enhance healing of skin wounds.

#### **11. Soothe, Heal and Prevent the Spread of Cold Sores**



The anti-inflammatory properties of eucalyptus can ease symptoms of cold sores, caused by the herpes simplex virus. Herpes simplex, is a viral infection caused by the herpes simplex virus 1 and 2 (HSV-1 and HSV-2). Both HSV-1 and HSV-2 are very common and highly contagious. Herpes infections are categorized by the area of the body that is infected.

The two major types of herpes are oral herpes and genital herpes. There is currently no known cure for either of these viruses, there is only a variety of treatments (oral and topical, prescription and over-the-counter) depending on which virus is treated.

Applying eucalyptus essential oil to a cold sore can reduce pain, prevent the spread of the virus and speed up the healing process. A [2018 research study](#) shows multiple compounds in eucalyptus essential oil can help fight the herpes simplex virus.

You can buy over-the-counter balms and ointments for cold sores that use a blend of essential oils, including eucalyptus, as their active ingredients. One [study published in 2001](#) found that a combination of eucalyptus and tea tree essential oils were especially effective against the herpes simplex virus responsible for cold sores. Check out our recipe for a homemade essential oil blend treatment for cold sores below.

## **12. Soothes an Earache**

Because eucalyptus essential oil is an expectorant that helps open up the respiratory tract, and also has antimicrobial properties that help clear up an infection that may cause fluid buildup, it can be used to ameliorate ear infection symptoms and earaches.

## **13. Relieve Stress and Anxiety**

People who experience stress or anxiety are often prescribed powerful pharmaceutical drugs as treatment. Unfortunately, many of these medications come with harmful side effects. Fortunately, there are some natural, more or less effective at reducing feelings of stress and anxiety.

A [2013 randomized clinical trial](#) showed that eucalyptus essential oil helps decrease activity in the sympathetic nervous system (the stress response system). This might promote relaxation and reduce stress.

A [1994 double-blind, placebo-controlled, randomized cross-over clinical trial](#) involving 32 healthy subjects found that when a blend of eucalyptus and peppermint essential oils in combination with ethanol were applied to large areas of the forehead and temples, the participants experienced increased cognitive performance.

## **14. Repels Insects and Rodents**

Rodent repellents are chemicals which will prevent household pests from feeding or gnawing. Such substances may be used in protecting an area from rodent infestation or in protecting packaged food, packing materials, electric cables, and other important vulnerable materials.

A [2014 study published in \*The Scientific World Journal\*](#) suggests that eucalyptus essential oil can help ward off bugs and other household pests naturally. When the oil was sprayed in laboratory pens, the rats stayed away and no longer consumed food in that area.

A [laboratory and field evaluation trial](#) comparing a formulation containing 40% DEET in ethanol and 32% oil of lemon eucalyptus (OLE) as protection against mosquitoes in Queensland, Australia, was conducted in 2014. The 40% DEET formulation provided 100% protection against mosquitoes for 7 hours, while the 32% OLE provided more than 95% protection for 3 hours.

Mosquitoes and other biting insects carry [vector-borne diseases that are dangerous to our health](#). Avoiding their bites is our best first line of defense. Insect repellents that contain DEET (chemical name *N,N-diethyl-m-toluamide* or *N,N-diethyl-3-methyl-benzamide*), picaridin (chemical name 2-[2-hydroxyethyl]-1-piperidinecarboxylic acid 1-methylpropyl ester), IR3535 (chemical name 3-[N-butyl-N-acetyl]-aminopropionic acid, ethyl ester) and 2-undecanone (chemical name *methyl nonyl ketone*) are the most popular, but they also contain strong chemicals that may be harmful to children and pregnant or nursing mothers.

As an effective alternative, many brands such as Repel and Off! use oil of lemon eucalyptus (OLE) or its synthetic version PMD (chemical name *para-menthane-3,8-diol*) to make a botanical compound to repel bugs. Travelers, children and pregnant or nursing mothers can find the right insect repellent for their needs by searching the [Environmental Protection Agency](#) (EPA) website and the [National Pesticide Information Center](#) (NPIC) website's insect repellent recommendations. And check out our post on TikTok for instructions on how to make your own [homemade bug spray](#).

### 15. For Oral Health

Peppermint isn't the only weapon against mouth bacteria and bad breath. Eucalyptus essential oil has antibacterial properties that can fight the germs that cause cavities, gum disease and bad breath. Some mouthwashes and toothpastes contain this essential oil as the active ingredient. In a [2010 double-masked, randomized trial](#), gum infused with eucalyptus essential oil helped reduce *halitosis*, or bad breath.

Products containing eucalyptus essential oil may also help prevent plaque buildup on teeth and gums by attacking the bacteria that cause tooth decay. Check out our [homemade mouthwash recipe](#) containing peppermint and clove bud essential oils.

### 16. For Skin Care

Eucalyptus essential oil can even be used in combination with olive oil as a natural sunscreen in a pinch. Eucalyptus has a sun protection factor (SPF) of 3 while olive oil has an SPF8. *Note: always wear sunscreen with at least an SPF30, use this as an alternative only if you have no other choice.*

### 17. For Hair Care

A [2016 study](#) showed that eucalyptus essential oil possesses a wide spectrum of biological activity, including antimicrobial, fungicidal, herbicidal, acaricidal and nematocidal properties. The results showed that eucalyptus essential oil has broad-spectrum inhibitory effects toward the fungi.

Research advocating using eucalyptus essential oil for the hair suggest that it stimulates hair follicles, improves hair health, promotes hair growth, relieves itchy scalp and treats head lice. Like most essential oils, it's important to dilute eucalyptus essential oil in a carrier oil like [avocado](#) before applying it directly to the skin.

A [2010 study](#) concluded that essential oils derived from thyme, clove, rose, eucalyptus, fennel, and bergamot have anti-inflammatory and anti-circulatory homeostasis properties. Carvacrol especially, one of thyme essential oil's major components. Suggesting using eucalyptus essential oil for hair reduces scalp inflammation, promoting hair growth.

An article in the [Journal of Clinical and Investigative Dermatology](#) estimates that dandruff and related seborrheic dermatitis affect about half of the adult population. A [2012 report published in the Asia Pacific Journal of Tropical Disease](#) indicated that essential oil from *Eucalyptus globulus* has antifungal and antiseptic properties that can combat the yeast-like fungus *malassezia*, the most common cause of dandruff and act as a natural anti-dandruff treatment.

A [2017 Australian study](#) concluded that the efficacy, safety, and ease of using eucalyptus essential oil (in a solution with *Leptospermum petersonii*) make it a productive natural alternative in the treatment of head lice.

*Piedra*, also known as *Trichomyces nodularis*, is an asymptomatic superficial fungal infection of the hair shaft, resulting in the formation of nodules on the infected hair. Two varieties of *piedra* may be seen: *black piedra*, whose nodules are typically found in scalp hair and *white piedra*, whose nodules are typically found in facial and body hair. In a [2012 study](#), eucalyptus essential oil proved effective against the fungus *Trichosporon ovoides*, involved in the occurrence of both types of *piedras*.

### The Therapeutic Uses of Eucalyptus Essential Oil

To date, over 1000 studies have been published documenting the medicinal benefits of eucalyptus essential oil and its major component *1,8-cineole*. [Eucalyptus leaves](#) and essential oil contain the highest known concentration of *1,8-cineole*, but the compound has also been found in smaller quantities in other plants including helichrysum, cannabis (hemp), ginger, and [peppermint](#).

- 1. Disinfect Your Home:** diffuse 5 drops at home to kill airborne bacteria. Or add 20 drops of eucalyptus essential oil to a spray bottle filled with equal parts water and witch hazel, and use it to clean the surfaces of your home. Shake well before each use. *Caution: eucalyptus can be toxic to young children and pets.*
- 2. Stop Mold Growth:** add 5 drops of eucalyptus essential oil to your vacuum cleaner or surface cleaner to inhibit the growth of mold in your home. Shake well before each use. *Caution: eucalyptus can be toxic to young children and pets.*
- 3. Repel Rodents or Insects:** combine ½ cup water, ½ cup witch hazel, and up to 20 drops eucalyptus essential oil, for greater efficacy, add 10 drops cinnamon or peppermint essential oils. Pour the solution into a spray bottle and spritz it around an outdoor area or areas that might invite rodents and other household pests, such as small openings in your home or near your pantry. Shake well before each use. Alternatively, soak some cotton balls in eucalyptus essential oil and then place them those areas. *Caution: eucalyptus can be toxic to young children and pets.*
- 4. Improve Seasonal Allergies:** diffuse 5 drops of eucalyptus essential oil at home or work, or apply 2–3 drops diluted in a carrier oil topically to your temples and chest. If you don't have a diffuser, you can sprinkle a few drops into a bowl of hot water or on the side of your bath when you take a hot shower. The steam will help diffuse it.
- 5. Relieve a Cough:** make our homemade "Vapor Rub" that is a combination of 15 drops of each eucalyptus and peppermint essential oils diluted in ½ cup of a carrier oil like jojoba or coconut. Mix well and rub on your chest and back of neck for instant cough relief. Use this treatment as needed.
- 6. Relief from Chest or Sinus Congestion:** diffuse 5 drops eucalyptus essential oil preferably near your bed through the night. Or pour 1 cup of boiling water into a bowl and add 1–2 drops eucalyptus essential oil. Then place a towel over your head and inhale the scent deeply for 5 to 10 minutes.
- 7. Lower a Fever:** you can make a compress by adding 10 drops eucalyptus essential oil to 2 cups cool tap water. Soak a washcloth in the mixture then apply it to your forehead, chest or back of neck.
- 8. Alleviate a Sore Throat:** mix 2–3 drops of eucalyptus essential oil with a carrier oil and apply to your chest and throat, or diffuse 5 drops at home or work. Check out our [homemade eucalyptus essential oil soothing throat spray](#) recipe.

9. **Alleviate an Earache or Headache:** diffuse 5 drops of eucalyptus essential oil at home or work, inhale the oil directly from the bottle, or apply a mix 2–3 drops of eucalyptus essential oil with a carrier oil and apply it to your chest, temples and back of neck or gently rub this mixture into the outer part of your ear canal with a cotton swab. *Always remember to dilute eucalyptus essential oil before using it topically on a child.*
10. **Boost Your Immune System:** make your own immune–boosting oil blend by diffusing a combination of eucalyptus, clove, lemon, cinnamon and rosemary essential oils. You can also diffuse 5 drops of eucalyptus essential oil at home or work.
11. **Another Boost to Your Immune System:** combine 4 drops lemongrass, 2 drops thyme, 2 drops oregano and 2 drops lemon essential oils. Mix these with coconut or olive oil and add them to an empty veggie capsule. Take one capsule daily with a meal during the winter months. Also check out our flu busting [homemade Echinacea and elderberry syrup](#) recipe.
12. **Homemade Skin Care:** mix 2–3 drops of eucalyptus essential oil with a carrier oil and add it to a clean cotton ball. Rub it on the area of concern daily. *Caution: avoid your “private parts”, eyes and other mucus membranes.* Trust us.
13. **As Toothpaste:** add 1–2 drops eucalyptus essential oil to your toothbrush then brush as usual. *Caution: neither eucalyptus leaves nor essential oil should ever be swallowed.*
14. **Homemade Hair and Scalp Care:** add 2–3 drops eucalyptus essential oil to a tablespoon of coconut oil. Massage the mixture thoroughly into your hair and scalp. Leave on for 15–20 minutes, then wash with your regular shampoo. Or simply add 5 drops eucalyptus essential oil to your regular shampoo and wash as usual. *Caution: avoid eyes and other mucus membranes.*
15. **To Treat Athlete’s Foot:** fill a bowl with warm water and add ½ cup Epsom salt and 1 teaspoon eucalyptus essential oil. Soak your feet in the solution for 20 minutes daily, or until the condition clears up.
  1. **To Treat Nail Fungus:** mix 1–2 drops eucalyptus essential oil with 1 teaspoon of a carrier oil like coconut or jojoba. Dip a cotton ball in the solution and apply it to the affected nails 2–3 times daily, or until the condition clears up.
  2. **Soothe Insect Bites:** mix 2–3 drops of eucalyptus essential oil with a carrier oil and add it to a clean cotton ball. Apply it to the insect bite three times daily or until the itch goes away.
  3. **Boost Your Energy:** diffuse 5 drops of eucalyptus essential oil at home or work, or apply 2–3 drops diluted in a carrier oil topically on your temples and back of neck.
  4. **Relieve Muscle Pain and Soreness:** mix 2–3 drops of eucalyptus essential oil and 2–3 drops of peppermint essential oil with ½ teaspoon of a carrier oil like fractionated coconut or moringa and massage into the affected areas. Like eucalyptus, peppermint essential oil also has excellent anti–inflammatory and analgesic properties. Moringa oil also has powerful anti–inflammatory properties in its own right Or you can make a bath soak by adding ½ cup Epsom salt and 10–20 drops eucalyptus essential oil to hot bath water.
  5. **Fight Cavities and Freshen Breath:** make a natural mouthwash by adding 1–2 drops eucalyptus essential oil to water, gargle for at least 30 seconds and then spit it out. *Caution: neither eucalyptus leaves nor essential oil should ever be swallowed.* Also check out our [homemade mouthwash](#) recipe.
  6. **Treat a Cold Sore:** combine 20 drops of each eucalyptus, melissa, camphor and tea tree essential oils with ½ cup jojoba, [argan](#) or fractionated coconut as a carrier oil. Mix well and store in a dark glass airtight eyedropper bottle. Add a few drops of this mixture to a cotton swab or ball and apply it directly on the cold sore several times a day. *Never touch the eyedropper directly to the cold sore.*

## Buying and Storage

Eucalyptus essential oil is available as a 100% pure essential oil in some health food stores and online. As with all carrier oil and essential oil products, be aware of the quality of what you purchase and always buy from reputable, well-sourced manufacturers. One sign of a reputable seller is their offering GC-MS reports from an outside agency, to verify the product's unique chemical breakdown and ensure it hasn't been tampered with.

While it is not a requirement, choose a eucalyptus essential oil with a certified organic seal because essential oils are so concentrated. High-quality oils are derived from "non-sprayed" or "wild crafted" materials, packaged in dark blue or amber light-resistant glass, and have clear labeling as for species, production method, and country of origin.

Labels like "natural oil" and "perfume oil" (as opposed to "essential oil") indicate something that has been diluted or is synthetic. You should also look for an oil that is CO<sub>2</sub>-extracted rather than steam distilled. CO<sub>2</sub> extraction means that chemicals like hexane or ethanol were left out of the process, which is a healthier method.

Eucalyptus essential oil can have a long shelf life if stored in tightly-sealed dark glass containers; in a cool, dark place away from light. When stored properly, eucalyptus essential oil can last for up to two years. Keep away from extreme heat and cold temperatures. Keep out of the reach of children and pets.

Discard after one year or as indicated on the packaging. Avoid [putting unused and expired products down the drain or in the toilet](#). Always dispose of unused or expired products in the proper disposal bins. Visit the [National Association Boards of Pharmacy](#) to find disposal boxes in your area.

If you plan to travel with any essential oils, read up on your final destination's regulations. One helpful resource is the [U.S. Embassy and Consulate](#) office.

### **Precautions**

The appropriate dose of eucalyptus essential oil for use as treatment depends on several factors such as the user's age, health, and several other conditions. Keep in mind that [natural products are not always necessarily safe](#) and dosages can be important.

Eucalyptus essential oil can still cause side effects similar to other types of essential oils. According to the [National Association for Holistic Aromatherapy \(NAHA\)](#) some essential oils can be hazardous. Symptoms may include: skin rash, redness, irritation, burning and hives. Be sure to follow relevant directions on product labels and consult your pharmacist or physician or other healthcare professional before using.

The [American Society for the Prevention of Cruelty to Animals \(ASPCA\)](#) states that [eucalyptus essential oil is toxic for cats and dogs](#), and can cause symptoms like lethargy, diarrhea, vomiting, increased salivation, and weakness. In some cases, exposure can even lead to kidney and liver damage. So exercise caution and consult your vet before spraying at home.

Use caution when using eucalyptus in aromatherapy. Avoid direct inhalation, as this oil may cause or worsen breathing problems. Inhaling eucalyptus essential oil might cause an asthma attack.

When applied topically, eucalyptus essential oil [can be a strong irritant in high doses](#) and should not be applied to skin before it is diluted into an ointment, gel or cream, or a carrier oil (like jojoba, [babassu](#), [argan](#), sunflower, sweet almond or hemp seed oils). Coconut oil is also a good choice, either fractionated coconut oil or virgin coconut oil. A safe dilution ratio for eucalyptus essential oil is 1–2 drops per teaspoon of carrier oil, especially when applying the oil to sensitive skin.

When applying eucalyptus essential oil topically, always perform a 24-hour skin patch test first using 1–2 drops, [read how for further details](#). Wear gloves if handling this essential oil in its pure form as direct contact may cause allergic dermatitis (an allergic reaction of the skin). Only use eucalyptus essential oil in diluted form.

The [National Association for Holistic Aromatherapy](#) recommends the following formula for topical use: start with 3–6 drops per ounce of carrier oil. If you don't have sensitive skin, you can gradually increase this amount to up to 15 drops. Eucalyptus essential oil can be helpful for eczema but may exacerbate other skin conditions such as psoriasis. Applying eucalyptus essential oil to the skin may cause *allergic dermatitis*, especially for people with sensitive skin.

Do not apply eucalyptus essential oil directly to broken or damaged skin. Do not apply directly to open wounds. Never use eucalyptus essential oil in eyes or in mucous membranes. Avoid prolonged use, prolonged use may cause skin irritation or an allergic reaction. If you experience an allergic reaction, discontinue use immediately and consult your physician.

### **Contraindications**

Eucalyptus essential oil might affect blood sugar levels. Monitor your blood sugar levels carefully if you have diabetes. The dose of your diabetes medication may need to be changed. It also might interfere with blood sugar control during and after surgery. Stop using eucalyptus essential oil at least 2 weeks before a scheduled surgery.

Topical use of eucalyptus essential oil may not safe for people with hypersensitive skin, or [women who are pregnant or breastfeeding](#) due to a lack of safety information. Eucalyptus essential oil may be used safely by pregnant or breastfeeding women strictly for aromatherapy in a diffuser, with a recommended dose of no more than 4 drops with a little water and only for 15 minutes at a time with very long breaks in between.

Use essential oils with extreme caution on children, [do not use eucalyptus essential oil on children](#). It's also important to note [that children are at higher risk of toxicity](#). Seizures, difficulty breathing, a lowered level of consciousness, [and even death have been reported](#). According to the [U.S. National Library of Medicine](#), even a 3.5 milliliter dose can be fatal. Some brands clearly label their essential oils "KidSafe" on the bottle if it can be used on children ages 2–10.

### **Drug Interactions**

Some medications, such as (Cytochrome P450 2D6 (CYP2D6) substrates), are changed and broken down by the liver. Eucalyptus essential oil might slow down this process increasing the side effects. If you are taking any medications that are changed by the liver, talk to your healthcare provider before using eucalyptus essential oil.

Finally, eucalyptus essential oil [may interact with certain medications](#), such as those for diabetes, high cholesterol, acid reflux, and psychiatric disorders. Be sure to consult your healthcare provider before using it. If you are currently taking any medications or have any ongoing health issues, speak with your doctor before using eucalyptus essential oil.

Medications that might be affected include amitriptyline (Elavil), clozapine (Clozaril), codeine, desipramine s(Norpramin), donepezil (Aricept), fentanyl (Duragesic), flecainide (Tambocor), fluoxetine (Prozac), meperidine (Demerol), methadone (Dolophine), metoprolol (Lopressor, Toprol XL), olanzapine (Zyprexa), ondansetron (Zofran), tramadol (Ultram), and trazodone (Desyrel).