

Essential Oils

Camphor Oil

👤 Dr. Jagdev Singh • January 19, 2018 💬 1 📖 7 minutes read



📷 Camphor Tree Leaves

Camphor Oil is an essential oil extracted from **Camphor Tree** (*Cinnamomum Camphora*) by steam distillation. It is used in alternative medicine for its several therapeutic benefits. It is used as decongestant, anti-inflammatory, analgesic, antispasmodic, sedative, and local anesthetic. In modern medicine, it is also found in liniments and creams used for pain relief.

TYPES OF CAMPHOR OIL

There are three types of camphor oil available:

1. White Camphor Oil
2. Brown Camphor Oil
3. Yellow Camphor Oil

Brown and yellow camphor oils are not used in medicines

because they contain a substance called safrole. **Safrole** is a highly toxic and carcinogenic compound. However, white camphor oil also contains a small amount of safrole, but its level is not significant to cause any problem. White camphor oil is commonly used in medicines for its therapeutic benefits.

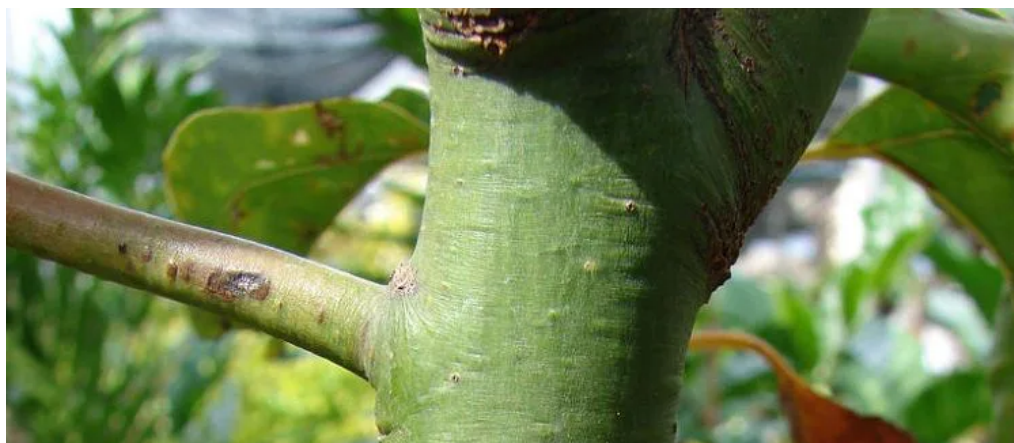
CHEMICAL CONSTITUENTS

Chemical constitution varies according to the part of **Cinnamomum Camphora** Tree used for the extraction of camphor oil. Here is a brief detail: (1)

Camphor Oil extracted from Stem Bark of Camphor Tree

D-Camphor	51.3%
1,8-Cineole	4.3%
α -Terpineol	3.8%
3-Methyl-2-butenic acid, oct-3-en-2-yl ester	3.1%
1,3,3-Trimethyl-2-hydroxymethyl-3,3-dimethyl-4-(3-methylbut-2-enyl)-cyclohexene	2.8%
Eugenol	2.1%
Terpinen-4-ol	2%
β -Cadinene	2%
1-Methyl-5-(1-methylvinyl) cyclohexene	1.6%
Dihydro-cis- α -copaene-8-ol	1.4%
α -Cubebene	1.3%

1,3,8-p-Menthatriene	1.1%
Artemesia triene	1%
Aromadendrene	0.9%
7,7-Dimethyl-2-methylenenorbornane	0.5%
α -Caryophyllene	0.5%
Isoterpinolene	0.4%
β -Selinene	0.4%
β -Pinene	0.3%
γ -Terpinen	0.3%
Bergamotene	0.3%
γ -Patchoulene	0.3%
4-Carene	0.2%
Undecane	0.2%
α -Bourbonene	0.2%
1,2,3,4,6,8alpha-Hexahydro-1-isopropyl-4,7-dimethylnaphthalene	0.2%
α -Calacorene	0.2%





Camphor Tree Stem

Camphor Oil extracted from Leaves of Camphor Tree

D-Camphor	40.5%
Linalool	22.9%
1,8-Cineole	11.3%
3,7,11-Trimethyl-3-hydroxy-6,10-dodecadien-1-yl acetate	4.5%
p-Menth-1-en-8-ol	2.3%
Caryophyllene	2.2%
α -Pinene	2.1%
2-Thujene	2%
Sabenene	1.8%
p-Menth-1-en-4-ol	1.1%
Camphene	1%
γ -Elemene	1%
Germacrene D	0.9%
Dihydro-cis- α -copaene-8-ol	0.6%
α -Phellandrene	0.4%
p-Mentha-2,4(8)-diene	0.4%
m-Cymene	0.4%

Oxalic acid,di(1-menthyl) ester	0.4%
4,7-Dimethyl-4,4a,5,6-tetrahydrocyclopenta[c]pyran-1,3-dione	0.3%
Elixene	0.3%
endo-Borneol	0.2%
1,5-Dimethyl-8-isopropenyl-1,5-cyclodeca-diene	0.2%
α -Caryophyllene	0.2%
α -trans-Ocimene	0.1%
2,2-Dimethylheptane	0.1%
2,2,5-Trimethylhexane-3,4-dione	0.1%
2,5,9-Trimethyldecane	0.1%
7,7-Dimethyl-2-methylenenorbornane	0.1%
α -Bourbonene	0.1%
3,5-Dimethyl-4-octanone	0.1%
Cadina-1(10),4-diene	0.1%
1,3,3-Trimethyl-2-hydroxymethyl-3,3-dimethyl-4-(3-methylbut-2-enyl)-cyclohexene	0.1%

Camphor Oil extracted from Fruits of Camphor Tree

Safrole	29%
D-Camphor	28.1%

Linalool	12.8%
1,8-Cineole	5.3%
o-Cymene	2.7%
α -Phellandrene	2.6%
p-Menth-1-en-8-ol	1.7%
B-Terpinyl acetate	1.3%
p-Menth-1-en-4-ol	0.7%
3-Carene	0.5%
Dihydro-cis- α -copaene-8-ol	0.4%
p-Mentha-2,4(8)-diene	0.3%
7,7-Dimethyl-2-methylenenorbornane	0.3%
Camphene	0.2%
2-Thujene	0.2%
α -trans-Ocimene	0.2%
γ -Patchoulene	0.2%

Chemical Constituents of White Camphor Oil

White camphor oil is mainly collected from camphor tree bark through distillation and vacuum rectification. The process produces 3 fractions of oil – White, Yellow and Brown. White fraction of oil is known as white camphor oil. White camphor essential oil primarily contains:

- D-Camphor
- 1,8-Cineole
- α -Terpineol
- Eugenol
- Terpinen-4-ol

Safrole Content in Different Types of Camphor Oil

White Camphor Oil	Traces
Yellow Camphor Oil	Around 10 to 20%
Brown Camphor Oil	Around 80%

PHARMACOLOGICAL ACTIONS

Airways & Lungs: Camphor Oil dissolves thick mucus, clears respiratory tract and lungs, relieves congestion, and eases in breathing. However, it might not be suitable for people with non-productive cough or cough arising from the throat irritation.

Heart & Blood Vessels: It acts as cardiac stimulant and inotropic. It stimulates cardiac muscles and improves speed and force of muscle contraction. It also stimulates blood circulation. On the skin, it dilates blood vessels.

Digestive Health: It causes **excessive salivation**, reduces thirst, increases the secretion of gastric juices, and relieves gas. In excess, it causes nausea, vomiting and loss of interest in eating.

Kidney & Urinary Bladder: It stimulates kidneys and induces diuresis.

Reproductive System: In low dosage, it acts as aphrodisiac and stimulant and improves libido. In high dosage, it reduces libido. It also reduces the secretion of milk in lactating mothers.

Skin: It induces soothing and cool sensation, improves circulation, and dilates blood vessels.

Medicinal Properties

Camphor essential Oil has following healing properties.

- Decongestant
- Anti-inflammatory
- Analgesic
- Antispasmodic
- Sedative
- Local anesthetic
- Antidepressant
- Antiseptic
- Cardiac
- Carminative
- Diuretic
- Febrifuge
- Hypertensive
- Insecticide
- Laxative
- Rubefacient
- Stimulant
- Sudorific
- Vermifuge
- Vulnerary

Ayurvedic Properties

RASA (Taste)	TIKTA (Bitter), KATU (Pungent), MADHURA (Sweet)
GUNA (Main Quality)	LAGHU (Light), TIKSHNA (Sharp)
VIRYA (Potency)	SHEETA (Cold)
VIPAKA (Resultant)	KATU (Pungent)
Dosha Karma	Pacifies Tridosha (Vata Dosha, Pitta Dosha & Kapha Dosha)

THERAPEUTIC INDICATIONS

In the following health conditions, **diluted Camphor Oil** can be used for local application.

1. Arthritic pain
2. Toenail Fungus (onychomycosis)
3. Itching and skin irritation
4. Gas (abdominal massage with castor oil + camphor oil – ratio 100:1)
5. Skin infections
6. Spasm
7. Burn scar

Undiluted camphor oil should not be used, and it should not exceed 11% in analgesic liniments, creams, or ointments. In lotions, its quantity should not exceed 1%.

CAMPHOR OIL BENEFITS & USES

Camphor Oil mainly used to reduce inflammation, pain, stiffness and excess mucus discharge in respiratory diseases or infections. Therefore, it is beneficial in pain disorders including arthritic pain, rheumatism, and muscular pain. For its expectorant and decongestant properties, it is used to treat cough, colds, flu and bronchitis.

It is a major constituent of balms, cold rubs, liniments and creams used to alleviate local pain, stiffness, inflammation and swelling. It blocks sensory nerves on the skin and alleviates pain sensations.

In respiratory diseases, camphor oil is used in vapor therapy to clear the lungs and ease breathing. Vapor therapy with camphor essential oil can also help to boost blood circulation, calm mind, and strengthen heart. It is also a main constituent of decongestant balms used for alleviating inflammation and reducing blockage of nasal tract, bronchi and lungs. The most of such medicines are applied on the chest.

Pain Relief

Camphor oil or camphor is a main ingredient of many pain relieving balms, creams, liniments and ointments. It acts as a counter-irritant and rubefacient. First, it produces a feeling of warmth by increasing blood flow. Then it exerts a soothing action and produces coolness. Ultimately, it relieves pain.

For this purpose, it is used along with other ingredients including base (paraffin or beeswax), menthol, clove oil, mint oil, cajuput essential oil, cassia oil, cinnamon oil, peppermint oil, eucalyptus oil, gaultheria fragrantissima oil, etc. A famous Tiger Balm also contains camphor as a chief ingredient.

Spams

Camphor essential oil has antispasmodic action, which helps to relieve spasms and cramps. In abdominal spasm or cramps, it is mixed in castor oil and applied on the abdomen. A circular clockwise massage with this oil mixture is highly beneficial to relieving abdominal spasm.

Oils	Mixing Proportion
Castor Oil	100 ml
Camphor Oil	5 ml

For muscular spasms in the back, legs, arm or neck, it should be mixed in olive oil, sesame oil, or mustard oil instead of castor oil.

Oils	Mixing Proportion
Olive oil, sesame oil, or mustard oil	100 ml
Camphor Oil	5 ml

Nasal Congestion

The aroma of Camphor essential oil acts as decongestant. Decongestant balms containing camphor can be used for relieving nasal congestion.

Skin Disease

Camphor oil has anti-bacterial, anti-fungal, disinfectant and soothing action. It is added in several lotions and ointments for its these therapeutic benefits. It alleviates skin irritation and reduces pruritus (severe itching). It acts on sensory

nerves and exerts local anesthetic and analgesic action. It also produces a soothing sensation, which helps to relieve these symptoms.

How to Use

If patient has burning sensation in the skin, itching, irritation, scaly patches on skin and swelling, it can be used mixing in coconut oil in ratio of 100:1. Regular application of coconut camphor oil helps relieving all these symptoms.

Nail Fungus

In nail fungus, a mixture of Camphor essential oil, oregano oil and tea tree oil can help to get rid of nail fungus. These three essential oils have potent antifungal properties, and these can be used in the following ratio.

Oils	Mixing Proportion
Oregano Oil	10 ml
Tea Tree Oil	5 ml
Camphor essential Oil	1 ml

How to Use

Apply the mixture of these three oils on the affected nails 3 to 5 times a day. The treatment course may vary from 10 to 12 weeks. Some patients may also require its regular application for a longer duration.

Burn Scars

Camphor oil along with Frankincense essential oil, Turmeric essential Oil and almond oil helps to reduce burn scars. The following mixture of oils can lighten the scar marks.

Oils	Mixing Proportion
Coconut Oil	50 ml
Almond Oil	50 ml
Frankincense oil	2 ml
Turmeric Oil	2 ml
Camphor Oil	1 ml

How to Use

The above mixture should be applied on the affected skin 3 to 4 times a day for at least 3 months.

Camphor oil use in Aromatherapy

However, camphor essential oil is rarely used in aromatherapy due to its neurotoxic nature. The unwise use can also cause convulsions, especially in people with history of convulsions or epilepsy.

The best use of camphor essential oil in aromatherapy is to add 1-3 drops in bathtub and soak in water for 5 to 10 minutes. It helps to calm the mind, improves mood, reduces mental stress, and treats anxiety and depression. For the best results, it can be used along with the following essential oils:

Essential Oils	Health Conditions
Basil essential oil	Respiratory infections, productive cough, congestion
Cajuput essential oil	Skin care, congestion, cough

Chamomile essential oil	Stress, depression, spasm, neuralgic pain
Melissa essential oil	Depression, menstrual spams
Lavender essential oil	Insomnia (sleeplessness), hair care

HOW TO USE CAMPHOR OIL

Camphor essential oil should always be used along with a base. Coconut oil is the best suitable base for it. The mixing ratio should be 100:1.

Coconut Oil	100 ml
Camphor Oil	1 ml

One can apply this mixture onto the skin and scalp. It reduces itching, dandruff, burning and skin irritation.

According to health condition, one can also add other essential oils in this mixture in quantity of 1 to 3 ml.

SAFETY PROFILE

Camphor oil is not added in any medicine used for oral consumption. However, processed camphor (also called Shuddha Karpur) is added in a very low amount in some formulations used in traditional medicine. The amount added in formulations varies from 1 to 5 mg of processed camphor. This amount does not produce any side effects when used for a short period (less than 4 weeks).

We consider oral intake of Camphor Oil is **POSSIBLY**

UNSAFE. Camphor essential oil is not purified in traditional way. Therefore, it might cause adverse effects even in minimal dosage.

For local application, it should be added in a base (e.g. coconut oil). Pure essential oil of camphor can cause skin irritation when applied without a base, especially in people with sensitive skin.

Side effects of Camphor Oil

Oral consumption can cause the following side effects:

1. Nausea
2. Vomiting
3. Loss of interest in eating
4. Burning sensation in the mouth and throat
5. Seizures
6. Visual impairment
7. Death: In excess dosage (above 2 grams), it can be lethal.

Precautions

Pure Camphor oil should not be rubbed directly onto the skin. However, coconut oil can be used as its base and ratio of mixing should be 100:1 (coconut oil 100 ml + Camphor Oil 1 ml).

Contraindications

People suffering from or having following health conditions should not use camphor oil:

1. Pregnancy
2. Epilepsy or history of convulsions
3. Asthma (with dry cough)

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One Comment



Pradeep

January 19, 2018 at 5:54 pm

I want article on ayurvedic supplements for pregnant female for healthy,brainy,fair child,please.