



## Pharmacopeia Module 8

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# Grapefruit (Citrus paradisi)

## Overview:

Grapefruit is a perennial, medium size tree, belonging to the Citrus genus and part of the Rutaceae family. Grapefruit is a hybrid that occurred through cross-pollination between orange and bitter pomello, and it has been recognized as a separate species. The grapefruit fruit is rich in vitamin C and is used in the food and beverage industry. Grapefruit is a popular ingredient in skin care, due to its numerous benefits for the skin.

The essential oil is pressed out from the fruit peel. It takes 1-2 hundred kilograms of peel to produce 1 kilogram of essential oil. It has pale yellow to yellow color and a thin, mobile texture. Grapefruit essential oil has potent antibacterial, antifungal, antiseptic and antiviral properties. Grapefruit scent is citrusy but with a slightly bitter twist. In aromatherapy grapefruit essential oil is balancing, refreshing and purifying. As most of the citric essential oil it is a great add in a blend, because it enhances the properties of other oils and is compatible with any scent. Pure grapefruit essential oil is potentially aggressive to the skin and can be mildly phototoxic, that is why a high dilution (1%) is recommended for use.

## Therapeutic Actions and Benefits:

Grapefruit oil is known to have analgesic, antidepressant, antibacterial, antifungal, antiviral, antiseptic, antispasmodic, carminative, deodorant, digestive, decongestant, febrifuge and tonic properties. Grapefruit essential oil is excellent for skin care, in a proper dilution. Topically applied it has detoxifying and slightly astringent effects, which are excellent for young skin problems such as acne. It also supports skin regeneration and rejuvenation. In the musculoskeletal system, the grapefruit essential oil stimulates peripheral circulation and relieves joints and muscle pain. Massaged on the upper abdomen, it stimulates digestion and considered an adjuvant in supporting the digestive transit. Massaged on the lower abdomen it soothes menstrual pain and relieves cramps. In the respiratory system grapefruit essential oil decongests airways and clear sinuses. In aromatherapy grapefruit oil is soothing to the nervous system, inducing a bright, balanced and positive atmosphere. Grapefruit essential oil is also helpful in stress-related conditions and promotes a deep, restful sleep.

## List of specific therapeutic actions

Endocrine/reproductive: soothes menstrual pain, relieves mood swings

Respiratory: clears airways and sinuses, decongestant

Circulatory: stimulates peripheral circulation, protects blood vessels

Immune: tonic, antibacterial, antifungal, antiseptic, antiviral

Musculoskeletal: relieves joints and muscular pain, soothes sore muscles

Topical: balances sebum production, astringent, detoxifying, alleviates juvenile acne, helps in rashes, eczema, psoriasis, alleviates skin conditions associated with stress and anxiety, soothes insect bites, promotes skin and hair health, helps in cellulite treatment, attenuates stretch marks

Nervous: alleviates anxiety, calms nervousness, strengthens nerves, helps in sleeping disorders and insomnia

Energetic: uplifting, cheerful, balancing, positive, energizing, elevates spirit, brightens mood, helps in mental fatigue, strengthens the mind, supports creativity, increases relaxation.

**Aromatic profile:**

Scent: fresh, sharp, citrusy, bitter-fruity, energizing

Note: top

Blends well with: clary sage, vetiver, sandalwood, rose, geranium, jasmine, lavender, ylang-ylang, mandarin, orange, grapefruit, bergamot, grapefruit, cinnamon, clove, ginger

Safety: photo-sensitizing, might be irritant in pure form

**Ayurveda:**

In Ayurveda grapefruit is considered mildly pungent, useful in pitta excess. In spiritual healing it is used in conditions associated with anger, excitability, and irritation.

**Traditional Chinese Medicine:**

In TCM grapefruit cools nerves, freshens and brightens shen (mind). It balances the Qi and encourages its circulation.

**Important Scientific Data**

Grapefruit essential oil is rich in monoterpenes, sesquiterpenes, esthers and benefic alcohols. The two top components are limonene and myrcene.

The volatile ingredients in grapefruit essential oil are very efficient antibacterial, antifungal and antiviral agents, effective even against resilient bacteria and fungi. This makes grapefruit essential oil ideal for topical applications.

Studies have showed that myrcene has analgesic effects, most probably through mediation of alpha 2-adenoceptor, which show a stimulation of endogenous opioid release. Myrcene also has anti-inflammatory properties, through prostaglandin E2. Early studies show that myrcene also has sedative and potentially anesthetic effects.

Both myrcene and limonene have antimutagenic properties, with potential use in anti-cancer therapy. Limonene and its derivates are viewed as a promising novelty in treating CNS tumors, especially gliomas, because of their potent cytotoxic activities.

**How To Use Grapefruit Essential Oil:**

Grapefruit essential oil can be applied (always highly diluted, maximum 1%) topically, as a compress, in the bath, through direct inhalation, or diffuser. However, because it can sensitize the skin a patch test before using undiluted is recommended.

As any citrus essential oil, grapefruit essential oil is ideal for perfumery blends. It brings Wearing grapefruit brings balance and equilibrium.

Add 1 drop of grapefruit essential oil in a carrier oil or a skin lotion to rejuvenate skin, enhance its elasticity, address sebum imbalance, to reduce skin inflammation and blemishes.

Add 1-2 drops in 1 oz. carrier oil to obtain massage oil with great effects in enhancing peripheral circulation and soothing muscles. Gently massage in an anti-clockwise motion on the abdomen to support digestion. Massage on the lower abdomen to soothe menstrual pain.

Add a couple of drops in the bathwater for a relaxing, balancing experience.

Use 1-2 drops in the diffuser or for direct palm inhalation to uplift spirit, enlighten mind, elevate mood, purify atmosphere.

### **Grapefruit Essential Oil Recipes:**

#### Skin smoothing blend:

- 4 drops grapefruit
- 2 drops cypress
- 2 drops rosemary

Dilute the blend in ½ oz. grape seed oil and use for dry and sun damaged skin

#### Digestive support blend

- 4 drops grapefruit
- 2 drops peppermint
- 2 drops ginger
- 2 drops fennel

Dilute the blend in 1/2 oz. carrier oil and use it to for a soothing abdominal massage that will help promote digestion.

# Lemon Balm (Melissa Officinalis)

## Overview:

Lemon balm is a perennial, herbaceous plant, member of the mint (Lamiaceae) family that is widely distributed, especially in the Mediterranean region, North Africa and Central Asia. The plant is naturally occurring but also cultivated for its medicinal and cosmetic use. Its leaves vary in color from dark green to yellow, depending on the soil and maturity and have a lemony, minty smell.

Lemon balm has been used for centuries for numerous purposes such as calming, soothing, wound healing, and treating insect bites. It has been highly regarded as a nervine that fights depression and melancholy and strengthens the nerves, and as a digestive aid, especially for nervous digestive conditions. Lemon balm is also used as an ingredient in various European cuisines.

Scientific research showed that lemon balm contains several active ingredients such as quercitin, citral, citronellal, flavonoids, all used in herbal medicine for their anti-oxidant and anti-inflammatory properties. The lemon balm essential oil has a high content of active ingredients such as monoterpenes, sesquiterpenes, esthers and beneficial alcohols, which gives it potent therapeutic properties. Due to its popularity, its positive effects on the nervous system and low yield from distillation, lemon balm is one of the most counterfeited essential oils; it is often adulterated with cheaper oils such as lemongrass.

## Therapeutic Actions and Benefits:

The essential oil of lemon balm is known to have antispasmodic, anti-anxiety, calming, soothing, diaphoretic, antiviral and carminative properties, documented by both traditional and modern medicine. Melissa is useful in the reproductive system, where it balances the hormones and helps regulate menstruation, relieves PMS and helps in menopause. Topically applied it stimulates peripheral circulation and relieves joints and muscle pain. Melissa's anti-inflammatory properties are extremely useful in muscle and joint pains, inflammation and to promote overall musculoskeletal health. As any member of the mint family, lemon balm oil also stimulates peripheral and cerebral circulation and has a decongestant effect on airways. Massaged on the abdomen, it stimulates digestion and considered an adjuvant in regulating appetite. Lemon balm also has diuretic and diaphoretic properties, working to maintain the water balance in the body. Used in aromatherapy it has a nervine action, with calming and soothing effects on anxiety, insomnia and depression. Both traditional use and modern research confirm that the herb and essential oil are beneficial for supporting cognitive functions such as enhancing memory.

## List Of Specific Therapeutic Actions

Endocrine / reproductive: balances hormones, regulates menstruation and ovulation, helps in PMS and menopause

Respiratory: clears airways, aids expectoration, adjuvant in colds and flu, decongestant

Circulatory: stimulates peripheral circulation, protects blood vessels

Immune: tonic, adjuvant in viral and bacterial infections, boosts metabolism

Musculoskeletal: relieves joints and muscular pain, soothes sore muscles

Topical: balances sebum production, helps in rashes, eczema, psoriasis, alleviates skin conditions associated with stress and anxiety, soothes insect bites, promotes skin and hair health

Nervous: alleviates anxiety, calms nervousness, strengthens nerves, helps in sleeping disorders and insomnia, supports cognitive functions and memory

Energetic: fights mental and emotional fatigue, strengthens the mind and concentration, has uplifting properties, induces positive moods, encourages clear thinking, supports the spirit during stressful periods, increases relaxation.

### **Ayurveda:**

Lemon balm is considered cooling and pungent and used for pitta imbalances. It is considered soothing and sedative, useful in vata triggered anxiety and to help the nervous system in stressful periods.

### **Traditional Chinese Medicine:**

In TCM lemon balm is considered cool and dry and used to circulate the Qi energy. It is calming to the shen and cooling for the liver and heart. It balances the energies by lowering excess yang and increasing yin.

### **Aromatic profile:**

Scent: sweet, minty, lemony, fresh, slightly woody, with herbaceous dryout

Note: top to middle

Blends well with: basil, clove, fennel, ginger, mint, rose, frankincense, lavender, chamomile, cedarwood, lemon, lime

Safety: non-toxic, might be irritant in pure form

### **How To Use Lemon Balm Essential Oil:**

Lemon balm essential oil can be applied (pure or diluted) topically, as a compress, in the bath, through direct inhalation, or diffuser. However, because it can sensitize the skin a patch test before using undiluted is recommended.

Add 1-2 drop of lemon balm essential oil in a carrier oil or a skin lotion to address nervous triggered skin conditions. Add 1-2 drops in ½ oz. carrier oil to obtain massage oil with great effects in enhancing peripheral circulation and moisturizing skin. Gently massage on muscles and joints to cool, soothe pain and promote normal function.

Add a couple of drops in the bathwater for a relaxing, uplifting experience, tonic effects. Lemon balm essential oil has a unique, lemony-minty, fresh, long-lasting scent.

Use 1-2 drops in the diffuser or for direct palm inhalation to uplift the spirits, fight stress, calm anxiety, reduce feelings of emotional pressure and support mental focus.

### **Lemon balm Essential Oil Recipes:**

Immunity, Concentration and Memory Diffuser Blend:

- 2 drops lemon balm oil
- 3 drops lemon oil
- 1 drop rosemary oil
- 1 drop eucalyptus oil

Use in diffuser

# Peppermint (*Mentha piperita*)

## Part of plant used

Leaves: dried, infusion, tincture, essential oil

## Short description/Overview:

### Herb

Peppermint is a hybrid mint crossed between watermint and spearmint belonging to the Lamiaceae family. Originally from Europe and the Middle East, peppermint is currently spread worldwide and purposely cultivated for medicinal and cosmetic use. Due to its pleasant smell determined by the high content of volatile oils, peppermint has been used for centuries as a spice and a food preservative especially in the oldest European cultures of Greek and Roman. In herbal and folk medicine peppermint was used to treat and alleviate a wide spectrum of diseases. Currently peppermint one of the most widely used flavoring agent in the food and beverage industry both due to its unique, pleasant and easily recognizable flavor and due to its preservative properties.

### Essential Oil

Peppermint essential oil is produced through steam distillation of leaves. The mint scent is one of the most popular and easily recognizable scents all over the world, and its benefits for the mind and spirit are undeniable. Peppermint essential oil has a pale yellow color, with strong topnote aroma and a fresh, minty, cool and clean aromatic profile with a slightly sweet, energizing dryout. It blends well with other fresh aromas such as clary sage, eucalyptus, lavender, lemon, lemongrass, mandarin, rosemary, and tea tree. Its high content in menthol and other beneficial alcohols makes peppermint essential oil very potent; it is recommended to be used always highly diluted (maximum 2 - 3%) in a carrier oil.

## Brief description of the therapeutic functions

### Herb:

In folk and herbal medicine peppermint is traditionally used in treating and ameliorating a wide variety of acute and chronic conditions: irritable bowel syndrome (IBS), nausea, vomiting, flatulence, dyspepsia, distension, indigestion, poor appetite, colic, peristaltic problems, colds, flu, fevers, coughs, respiratory viral and bacterial infections, sinus congestion, asthma. Topically used it has a cooling and soothing effect on the treated area being useful in joint and muscular pains. Modern herbal medicine uses peppermint mainly for its high volatile oils content, as an aromatic in herbal or OTC preparation, in combination with other similar ingredients for digestive and respiratory problems.

### Essential oil:

Peppermint essential oil is rich in active ingredients such as monoterpenes, sesquiterpenes and esters, and potent alcohols all active ingredients that contribute to the oil's properties as an analgesic, anti-emetic, anti-inflammatory, antiseptic, antibacterial, antifungal, antispasmodic, antitussive, carminative, cephalic, decongestant, expectorant, febrifuge, stimulant, stomachic and sudorific properties. Because of its cooling yet stimulating effects peppermint oil has an affinity for the

respiratory and musculoskeletal system. In the respiratory system, peppermint clears and decongests sinuses and airways, boosting oxygen intake and protecting the body from respiratory infections. It is a great adjuvant in the treatment of various types of respiratory ailments due to its capacity to support the respiratory function. Peppermint essential oil also soothes and alleviates muscle and joint pain, simultaneously stimulating peripheral circulation. In the nervous system, peppermint essential has an almost unique effect that is both calming and stimulating; it relieves stress and strengthens the mind.

### **List of specific therapeutic actions**

#### **Herb:**

*Digestive:* regulates digestive functions, calms nausea, stops vomiting, relieves gas and bloating, treats indigestion and dyspepsia, stimulates bile production

*Respiratory:* clears airways, aids expectoration, adjuvant in colds and flu, decongestant

*Nervous:* alleviates anxiety, calms nervousness

*Immune:* tonic, immune system booster, adjuvant in viral and bacterial infections, fights against tumor proliferation, antioxidant

*Topical:* relieves joints and muscular pain

#### **Essential oil:**

*Circulatory:* stimulates peripheral circulation, protects blood vessels, helps in treating broken capillaries

*Musculoskeletal:* relieves joints and muscular pain, soothes sore muscles, helps in stiff and painful joints, helps in arthritis, promotes musculoskeletal health

*Immune:* tonic, adjuvant in viral and bacterial infections, boosts metabolism, boosts oxygen intake, helps in chronic fatigue

*Respiratory:* clears airways, aids expectoration, adjuvant in colds and flu, decongestant, helps in treating respiratory infections

*Topical:* antibacterial, antifungal, has antiseptic properties, promotes wound healing

*Nervous:* alleviates anxiety, calms nervousness, soothes headaches and migraines, enhances concentration, supports memory, fights sleep disorders and anxiety

*Energetic:* fights mental fatigue, clears thoughts, stimulates the mind, invigorates and uplifts spirits, boosts self-esteem, helps in nervousness, soothes depression, energizes, supports concentration, refreshes.

#### **Ayurvedic medicine:**

*Taste:* sweet, pungent

*Post digestive:* pungent

*Potency:* cooling

*Quality:* dry, sharp, light, penetrating

*Tissues:* blood, nerve

*Channels:* digestive, respiratory, nervous, reproductive

Peppermint is considered cooling and used in conditions associated with fire excess, for example to cool digestive fire (Agni). It is also indicated for excess *kapha*, high *pitta* conditions, and to promote the movement of the breath (*vata*).

#### **Traditional Chinese Medicine:**



In TCM, peppermint is considered cooling and used to address Qi energy stagnation. It clears the respiratory system, treats phlegm, cools fire, and stimulates the mind.

### **Important scientific data:**

#### Herb:

Peppermint has a high content of volatile oils that not only make its scent recognizable but also have numerous therapeutic applications. Besides menthol and menthone, the principal volatile oils peppermint also contains flavonoids, tannins and vitamins.

Several trials have been focused on the peppermint efficiency in IBS (irritable bowel syndrome), with encouraging and relevant outcomes. The results indicated that peppermint oil can be successful as a symptom relief in IBS.

Peppermint antiseptic properties are fully validated by several studies. The volatile oils, mainly menthol and menthone repeatedly proved potency as antibacterial, antifungal, antiviral and antiparasitic both upon oral or topical administration.

Peppermint has shown in vitro effectiveness against a wide range of Bacteria including H.Pylori, Salmonella and E.coli, proving its power as a therapeutic in the digestive system active.

A randomized clinical trial with 41 participants indicated that peppermint oil was effective for tension headaches, the feedback reporting sensible improving in symptoms.

#### Essential oil:

The peppermint essential oil is rich in active ingredients with scientifically proven therapeutic properties. The most important active constituents of peppermint oil are Menthol, a alcohol that sums up to 50% of the essential oil as well as monoterpenes such as alpha-pinene and sesquiterpenes such as beta-caryophyllene.

Scientific research showed that menthol is a potent anti-inflammatory agent with relevant effects in inhibiting pre-inflammatory cytokines. Other studies showed that menthol also has soothing, anesthetic and antialgic properties which recommends the peppermint essential oil as an adjuvant in the treatment of various pains, both topical and systemic.

Peppermint essential oil also has antibacterial, antiviral and antifungal agent, with great effect in topical applications.

Several clinical studies validated peppermint essential oil as one of the best anti-nausea agents, especially in post-operative patients. Peppermint showed great results in inhibiting nausea in post-op C-section patients, as well as in oncology, where it is currently used during and after chemotherapy sessions.

Early studies on how aromatherapy works on individuals, an assessment made through EEG monitoring showed that peppermint essential oil positively affects mood when inhaled.

Peppermint oil is also effective as an airway decongestant, often being used as an adjuvant in respiratory system treatment. A clinical trial assessing the use of peppermint volatile oils in inhalators as a drug delivery booster showed promising results that support further researches.

## **How To Use**

### Herb:

- Tea: 1 cup boiling water poured over 1 teaspoonful fresh or dried peppermint leaves, infused for 10 minutes, strained, optionally sweetened with honey; 1 cup 2-3 times/day
- Tincture: 2-4 drops 2-3 times/day
- Topical: crushed fresh leaves or 1-2 drops mixed with olive oil, massaged over the painful area, as many time as necessary

### Essential oil:

- Massage Oil: Use maximum of 2% peppermint in a carrier oil and massage it into sore muscles, joints and to stimulate peripheral circulation. Massaged onto the chest it decongests airways and supports respiration and rubbed onto the abdomen it stimulates digestion and aids the digestive transit.
- Diffuser: diffuse peppermint to support respiratory system and to clean energies, cool spirits, support thinking and communication and energizing.
- Add 1-2 drops in a skin lotion to soothe sunburned skin.
- For clear breathing, add 1-2 peppermint essential oil in steam therapy.

## **Popular therapeutic recipes:**

### Essential oil:

#### *Anti-Nausea Blend:*

- 4 drops peppermint
- 4 drops grapefruit
- 2 drops ginger
- 2 drops fennel

Diffuse the blend or dilute in ½ oz marula oil for direct palm inhalation or topical application.

#### *Mental clarity Blend:*

- 2 drops peppermint
- 4 drops lime
- 2 drops tulsi

Diffuse the blend or add a couple of drops on a handkerchief and inhale.

#### *Sore muscle Blend:*

- 4 drops peppermint
- 6 drops eucalyptus
- 4 drops ginger
- 2 drops sweet birch

Dilute the blend in 1 oz carrier oil such as marula or jojoba and massage into the sore muscles and joints.

**Cautions, Warnings and Contraindications:****Herb:***Caution:*

Cautious use is recommended in severe chronic digestive or respiratory diseases.

*Warnings:*

Oral overdose can lead to stomach and intestinal irritation.

**Essential oil:***Caution:*

Always use diluted in carrier oil. Before using it for the first time, a patch test is highly recommended.

*Warnings:*

Do not take peppermint essential oil internally.

*Contraindications:*

Pregnant women and infants should avoid use of the essential oil

**Possible herb / drug interactions:**

Peppermint is considered generally safe when following normal dosages.

# Ravensara (Ravensara aromatica)

## Overview:

Ravensara is a middle to large size evergreen tree belonging to the Lauraceae family and endemic to mainly Madagascar. The locals refer to it as *Hazomanitra* - 'tree that smells' and its essential oil is considered a "cure all". Ravensara is widely used as a therapeutic in African traditional medicine, where it is highly revered. It is particularly effective against infections, due to its antibacterial and antifungal properties. It also works in the respiratory and musculoskeletal systems. Ravensara bark is reddish to brown and has a distinctive odor, yet the leaves are the ones used to produce essential oil.

Ravensara essential oil is steam distilled out of freshly harvested leaves. The essential oil has a clear to pale yellow color, a thin consistency and a medium to strong initial aroma. In aromatherapy, ravensara oil is highly revered for its tonic yet soothing properties. It grounds and energizes fighting negative feelings and inertia. The aromatic profile of ravensara essential oil is very pleasant and has a great compatibility with almost any type of essential aroma. It is excellent in addressing respiratory ailment and soothing musculoskeletal problems. Its mildness and great compatibility makes ravensara essential oil a great alternative or complement to eucalyptus or tea tree.

## Therapeutic Actions and Benefits:

Ravensara essential oil has anti-inflammatory, antibacterial, antifungal, antiviral, anti-rheumatic, antiseptic, decongestant, expectorant, febrifuge, and stimulant properties. Ravensara has an affinity to the respiratory system. It helps in respiratory infections such as colds and flu, clears sinuses and decongests airways, boosting oxygen intake. Unlike other essential oils primarily used to address respiratory ailments such as eucalyptus, pine, juniper and others, Ravensara is mild and can be used for children. The essential oil is also effective in the treatment of chronic respiratory diseases such as asthma. It can be also administered in inhalations and aerosols to treat asthma and other asthmatic respiratory diseases. Ravensara essential is also effective in the musculoskeletal, lymphatic and circulatory systems because it soothes muscles and joints and supports peripheral circulation. It is excellent for the overtired, overwork muscles and aching joints. On the skin it is particularly effective in oral herpes and shingles. On the nervous system ravensara has tonic, balancing, soothing and refreshing effects that supports the normal functioning of the nervous system.

## List of specific therapeutic actions

Respiratory: helps in colds and flu, decongest airways, unclogs sinuses, helps in the treatment of respiratory infections, boosts oxygen intake, helps in asthma, calms cough, has expectorant properties

Circulatory: has stimulating properties, stimulates peripheral circulation, fights edema

Musculoskeletal: alleviates muscular aches and pains, relieves stiff joints, aids in arthritis and rheumatism, soothes, relaxes, stimulates

Immune: reduces convalescence, boosts immunity

Skin: antibacterial, antiseptic, promotes wound healing, helps in healing mouth and throat sores, aids in oral herpes, soothes shingles

Nervous: helps in exhaustion, calms nerves, has relaxant properties, relieves stress, helps balance, aids in stress-related sleeping disorders

Energetic (aromatherapy): grounds, balances, cleans and purifies energies, provides a feeling of security, has energizing properties, detoxifies the mind from negative and unproductive thoughts, encourages focus, boosts mental energy, supports logical thinking, enhances mental performance, boost courage and honesty.

**Aromatic profile:**

Scent: fresh, herbaceous, light, camphorous, spicy, woody, slightly fruity

Note: top to middle

Blends well with: rosemary, eucalyptus, lavender, frankincense, cedarwood, sandalwood, bergamot, lemon, cardamom, black pepper, clove, ginger

Safety: Non-toxic, non-irritating

**Ayurveda:**

In Ayurveda, Ravensara has tonic and revitalizing effects on the spirit. It is benefic for all the tissues, especially muscle, lymph and blood and helps in balancing breathing.

**Traditional Chinese Medicine:**

In TCM, Ravensara is considered tonic and is used to strengthen the Qi. It is used to address respiratory infections and congestion.

**Important scientific data:**

Ravensara essential oil is very rich in monoterpenes which contributes to its potent antibacterial and antiseptic properties. Ravensara is especially rich in limonene, sabinene, alpha and beta pinene.

Studies showed that ravensara essential oil active ingredients are efficient against both gram negative and positive pathogen bacteria such as *Listeria* and *E.Coli*. The pine essential oil is also a strong antifungal agent, with efficiency against *Candida Albicans* and *Aspergillus*. Ravensara is effective even against *Staphylococcus Aureus* and *Streptococcus Pneumoniae*, highly resilient pathogens, as it was shown in vitro.

Ravensara also has antiviral effects, especially against herpes simplex virus, which makes it ideal for topical applications in cases of oral herpes and shingles.

Sabinene has very potent antioxidant and regenerative properties with great potential in anti-cancer therapy. Other monoterpene components, such as alpha and beta pinene showed anti-inflammatory effects in vitro, by inhibiting pre-inflammatory cytokines. Alpha pinene also has anti-tumor and anti-mutagenic effects.

**How To Use Ravensara Essential Oil:**

Ravensara oil can be applied topically (in a proper dilution) massaged or as a compress, in the bath water, through direct inhalation, or diffuser.

For massage of the muscle and joints, and lymphatic drainage Ravensara essential can be used in a carrier. Ravensara based massage oil can be used for local massage to enhance peripheral circulation and to relieve muscular, joint aches and lymphatic drainage. This essential oil is energizing and stimulating thus recommended for exhausted, convalescent, infection-prone, immune-deficient persons.

Massaged locally in the lower abdomen and the genito-urinary area it has a decongestant effect, promotes local circulation and aids in both prostatitis and soothing menstrual pain.

Add 2-3 drops in the bath water to decongest airways and for a tonic, energizing, revitalizing and grounding experience.

Ravensara can also be used for inhalations either in a diffuser or few drops on the palm to clear the sinuses, support the breathing function and induce a clean, balanced. Diffuse ravensara during the cold season to support respiratory health for the entire family.

### **Ravensara Oil Recipes:**

#### Wintertime assist blend:

- 16 drops ravensara
- 3 drops melissa
- 6 drops chamomile
- 4 drops geranium
- 4 drops lavender

Dilute the blend in 1 oz. tamanu carrier oil and use for massage purposes during the cold season to boost immunity, protect the body from viruses and speed up recovery from respiratory ailments.

#### Wintertime bath:

- 4 drops ravensara
- 2 drops tea tree
- 2 drops niaouli
- 2 drops lemon

Add the blend to bathwater at the first signs of respiratory infections such as colds or flu. Use warmer water and soak for longer than usual. For children and elderly the quantities should be halved.

# Rosemary (Rosmarinus officinalis)

## Overview:

Rosemary is a perennial, shrubby evergreen belonging to the Lamiaceae family and native to various parts of the world, usually along marine coasts. The rosemary shrub grows 3-5 feet tall, has numerous branches and has grey-green leaves. The plant family has several species and numerous cultivars. Rosemary has been used as a therapeutic agent, aromatic and spice since ancient times. The name of the plant comes from Latin and can be literally translated as “Dew of the Sea”. Rosemary was highly revered in all ancient empires. In ancient Egypt rosemary was frequently used in religious and funeral ceremonies and considered a symbol of fidelity. In the Greek and Roman Empires rosemary was used as a medicinal plant; its unique, potent smell was associated with purity and health. Various form of preparations of flowers and leaves were used to treat digestive symptoms, menstrual problems, lack of energy, convalescence, exhaustion and as an overall brain tonic.

The term chemotypes refer to essential oils that are extracted from the same species but have a unique chemical profile and implicitly different properties due to the plant's genetics and environmental conditions. Rosemary has several known chemotypes that are recognized for their therapeutic properties and aromatherapy profiles. Camphor chemotype has a woody, herbaceous scent with a camphorous top note; it is penetrating, pleasant, and refreshing. Verbenone chemotype is softer, sweeter, with an herbaceous, resinous scent and a complex minty-citrusy topnote; it is sensuous and complex, with a durable dryout.

## Therapeutic Actions and Benefits:

Rosemary essential oil is high in active constituents with potent therapeutic properties such as verbenone and cineole. Rosemary is tonic, warming, benefic for peripheral circulation, muscle, joints, skin and hair. Topically applied in a carrier the oil is particularly effective in stimulating circulation, soothing muscular and joint pain, treating sore muscles. It is also highly benefic to the skin, especially the scalp as an anti-dandruff ingredient. Rosemary as an herb helps the digestive function, normalizing digestion and relieving gas and bloating. Rosemary essential oil is efficient in respiratory infections such as colds and flu, has expectorant and decongestant properties which aids a faster recovery and a better oxygen intake. It is also considered a brain tonic that supports the memory and helps concentration.

## List of specific therapeutic actions

Respiratory: has mucolytic and expectorant properties, clears the head, decongests sinuses and respiratory system, boosts oxygen intake, fights colds and flus

Circulatory: has stimulating properties, stimulates peripheral circulation, fights edema

Digestion: promotes a healthy digestive function, relieves gas and bloating

Immune: boosts immunity, strengthens the immune response

Musculoskeletal: alleviates muscular aches and pains, relieves stiff joints, aids in arthritis and rheumatism, soothes sore muscles

Skin: promotes wound healing by enhancing local circulation, helps in acne treatment, alleviates eczema, rashes and dermatitis, mild on the skin, highly compatible with all skin types, reduces hair loss, treats dandruff, helps in alopecia, promotes skin and hair health  
Nervous: neuro-tonic, stimulates and strengthens nerves, helps in sleeping disorders and insomnia, fights exhaustion and mental fatigue, supports the nervous system and promotes neuronal plasticity (facilitates other healthy nervous way to take over impaired function) in case of nervous impairment

Energetic: has potent tonic effects on the mind and spirit, enhances concentration, mental focus, clarity, fights moods swings and negative emotions, helps during stressful periods, supports logical thinking, helps intellect, boosts confidence and increases determination.

### **Ayurveda:**

Rosemary is considered light and flowing, effective in conditions associated with high kapha. It decreases kapha, helps the breath, and deepens the oxygen intake.

### **Traditional Chinese Medicine:**

In TCM, rosemary circulates the Qi energy and promotes blood movement. It is used to treat muscle and joint pain, relieves cramps and strengthens the Shen (mind).

### **Aromatic profile:**

Scent: Fresh, strong, vibrant, and herbaceous

Note: top to middle

Blends well with: peppermint, lavender, lemon, eucalyptus, fir, lemongrass, pine, tea tree

Safety: Non-toxic, non-irritating

### **How To Use Rosemary Essential Oil:**

Rosemary oil can be applied topically (always diluted), as a compress, in the bath, through direct inhalation, or diffuser.

For massage of the muscle and joints, and lymphatic drainage rosemary essential oil must be diluted in a base oil. A 2 - 3% dilution in a carrier oil can be used for local massage to enhance peripheral circulation and to relieve muscular and joint pain. Dilute rosemary essential oil – verbenone chemotype (3%) and use as compress or massage on the lower abdomen to soothe menstrual pain and balance the menstrual cycle.

Add 1-2 drops in the bathwater for a both soothing and reinvigorating experience.

Add 1-2 drops rosemary essential oil in skin and hair lotion to promote a healthy complexion and to address dermatological problems such as rash, eczema, dandruff, folliculitis and others.

Rosemary can also be used for inhalations either in a diffuser or few drops on the palm to clear the sinuses, strengthens the mind, boost confidence and enhance oxygen intake.

Rosemary essential oil can also be used as an air freshener. A few drops added into a spray bottle containing water can help reduce unpleasant odor and freshen the air.

### **Rosemary Oil Recipes:**



Hair and scalp formula:

- 8 drops rosemary verbenone
- 4 drops atlas cedar
- 4 drops lemongrass
- 4 drops lavender

Dilute the blend in a carrier oil; optionally add 10% argan. Use a few drops to massage on the scalp

Mental clarity and energizing blend:

- 8 drops rosemary verbenone
- 4 drops lemon

Use the blend in a diffuser

Colds and flus diffuser blend:

- 5 parts eucalyptus
- 5 parts rosemary
- 5 parts pine
- 5 parts cypress
- 4 parts lemon
- 3 parts oregano
- 3 parts fennel
- 2 parts white sage

Premix blend in glass bottle, use 5 – 10 drops at a time in diffuser

## **Tulsi (*Ocimum sanctum*, *O. tenuiflorum*)**

### **Part of plant used:**

Leaves, flowers, essential oil

### **Short description/Overview:**

#### Herb

Tulsi, or holy basil, is a perennial, herbaceous, shrubby, aromatic herb belonging to the Lamiaceae family and native mostly to Asia. Holy basil has several varieties, including the Sri tulsi that has a green color and is the most common, and Krishna tulsi that has purple leaves. The aromatic herb has been used since ancient times as medicine, in religious ceremonies, as a food spice and insect repellent. Tulsi, also named “Queen of herbs” is a highly revered herb, especially in the Indian culture, and is extensively used as a therapeutic herb in Ayurvedic medicine. In various Asian cultures tulsi is considered a potent medicinal herb, used to address numerous ailments and as an adaptogen for the body and mind. The herb’s therapeutic properties have been validated through modern scientific research.

#### Essential Oil

Tulsi essential oil is produced through steam distillation of leaves. It is clear to pale yellow, with top to mid notes and fresh, sweet, spicy, camphorous, herbaceous, minty, licorice-like aromatic profile with sharp accents. Tulsi blends well with citrus and floral oils such as bergamot, orange, lemon, clary sage, geranium, hyssop, and oak moss. Tulsi is a highly respected essential oil, especially in Ayurveda, and is thought to have purifying, protective and cleansing effects. Due to its high concentration of active ingredients such as eugenol the essential oil is very strong and must always be highly diluted; the recommended dilution is 0.5% in carrier oil.

### **Brief description of the therapeutic functions**

#### Herb:

Tulsi has been used traditionally as a therapeutic herb in several Asian cultures, especially in Ayurvedic medicine. It has been known to be effective in addressing digestive and respiratory symptoms. Tulsi, in various forms of preparation, is used in cases of colds, flu, fevers, coughs, respiratory viral and bacterial infections, asthma, sinus congestion, headaches, muscle and joint pain, gout, flatulence, dyspepsia, distension, intestinal worms, Candida and other bacterial and fungal infections, indigestion, poor appetite, colic, peristaltic problems, poor circulation, amenorrhea, dysmenorrhea, anxiety, depression, sleeping disorders and insomnia. Tulsi is considered an adaptogen, supporting both mind and body during stressful and intense periods of time.

#### Essential oil:

Tulsi essential oil is rich in monoterpenes, sesquiterpenes and esters, and beneficial alcohols which all contribute to its medicinal properties. The essential oil is known to have adaptogenic, anti-depressant, antibacterial, antiseptic, antispasmodic,

carminative, deodorant, diaphoretic, digestive, febrifuge, insecticide, nervine, stomachic, tonic and vermifuge effects. Tulsi essential oil is warming hence effective in the musculoskeletal system, where it soothes and relieves pain and stimulates peripheral circulation. In the respiratory system, tulsi clears and decongests sinuses and airways and boosts oxygen intake. Applied locally, in proper dilution, the essential oil has multiple effects: rubbed on the chest it clears sinuses and airways, on the upper abdomen it supports digestion and on the lower abdomen it soothes menstrual pain. In the nervous system it has adaptogen, tonic and strengthening effects.

### **List of specific therapeutic actions**

#### Herb:

*Digestive:* regulates digestive functions, relieves gas and bloating, treats indigestion and dyspepsia, stimulates bile production, eliminates intestinal parasites, alleviates stress-induced digestive symptoms

*Respiratory:* clears airways, aids expectoration, adjuvant in colds and flu, decongestant

*Reproductive:* regulates menstrual flow, reduces menstrual pain

*Topical:* relieves joints and muscular pain, insect repellent, alleviates eczema and rashes, soothes insect bites

#### Essential oil:

*Circulatory:* stimulates peripheral circulation, protects blood vessels, helps in treating broken capillaries

*Digestive:* supports digestive system, relieves gas and bloating, regulates bowel movements, fights stress-induced digestive symptoms

*Musculoskeletal:* relieves joints and muscular pain, soothes sore muscles, helps in stiff and painful joints, helps in arthritis, promotes musculoskeletal health

*Immune:* adaptogen, antibacterial, antifungal

*Respiratory:* clears airways, aids expectoration, adjuvant in colds and flu, decongestant, helps in treating respiratory infections

*Topical:* regulates sebum production, treats oily skin, helps in acne treatment, soothes psoriasis, alleviates eczema and rash

*Nervous:* alleviates anxiety, calms nervousness, helps in depression, aids in insomnia and sleep disorders, soothes headaches and migraines

*Energetic:* purifies the spirit, clears unproductive and negative thoughts, fights mental fatigue, stimulates the mind and mental clarity

### **Ayurvedic medicine:**

In Ayurvedic medicine tulsi is considered warm, pungent and bitter and used to bring spiritual clarity. It is also used as a diaphoretic and a febrifuge, to balance digestive fire and alleviate skin problems. It clears kapha, increases prana, decreases vata and increases pitta.

### **Traditional Chinese Medicine:**

In TCM tulsi is considered warm and dry and used to strengthen Qi, to fight conditions associated with cold and damp and to strengthen shen (mind)

### **Important scientific data:**

#### Herb:

Tulsi has numerous active substances such as flavonoids, triterpenes, tannins, volatile oil (mainly eugenol), mineral and vitamins.

Several studies showed that tulsi is effective in maintaining a healthy digestive system, regulate peristalsis and eliminates gas and fight bloating. Also, in the digestive system tulsi has antiparasitic and antihelmintic effects.

The flavonoids and eugenol in the tulsi have a combined action with anti-inflammatory effects both when administered orally or topically.

Preliminary studies focus on tulsi's active ingredients and their capacity to fight cancer and stop its proliferation. There are several active ingredients with antioxidant activity that show promising results in fighting free radicals, preventing DNA damage and inhibiting mutant cell proliferation.

#### Essential oil:

Tulsi essential oil has a high content of phenols, especially eugenol and monoterpenes such as alpha and beta pinene.

Studies have shown that eugenol is a potent antibacterial and antiviral agent, with great efficiency against resilient and antibiotic resistant pathogen such as E. coli, Listeria, Pseudomonas, Proteus, Salmonella, and Clostridium candida, aspergillus and others.

Eugenol also has a great contribution in slowing the inflammatory processes. In vitro studies showed that it inhibits pre-inflammatory cytokines.

The high content in eugenol is also responsible for tulsi's anesthetic effect, proved in several medical studies. Tulsi essential oil has anesthetic effects when used in pure state. However, pure tulsi essential oil is dermocaustic so applying it undiluted to the skin can cause chemical burns and the more diluted the less anesthetic the essential oil is.

The monoterpenes such as alpha and beta pinene have very potent antioxidant and antimutagen properties with great potential in anti-cancer therapy. The active ingredients are particularly effective in topical application where it scavenges free radical and prevents premature oxidation process.

#### **How To Use**

##### Herb:

- Tea: 1 cup boiling water poured over 1-1/2 teaspoonful fresh or dried tulsi leaves, infused for 10 minutes, strained, optionally sweetened with honey; 1 cup 2-3 times/day
- Tincture: 10 - 20 drops 2-3 times/day

##### Essential oil:

- Massage Oil: Tulsi promotes comfort and relief to sore muscles and joints. Use maximum 0.5% tulsi in a carrier oil and massage it into sore muscles, joints and to stimulate peripheral circulation. Massaged onto the chest it decongests airways and

supports respiration and rubbed onto the abdomen it stimulates digestion and aids the digestive transit. Massaged in the lower abdomen it can alleviate menstrual pain

- Diffuser: diffuse tulsi to purify and clean energies, cool spirits, support thinking, promote healthy respiration, restful sleep and during stressful and soliciting periods
- Two-three drops in an aromatic bath soothes body and mind, fights stress, relaxes, strengthens mind
- For clear breathing, add 1-2 tulsi essential oil in steam therapy.
- Add 1 drop in skin cream or lotion to balance sebum production and to address oily skin

### **Popular therapeutic recipes:**

#### Herb:

##### *Adaptogen infusion*

- 2 cups water
- 4 teaspoons tulsi
- 1 teaspoon peppermint
- 1 teaspoon nettle
- 1 clove
- a pinch of cinnamon
- a few slices of fresh ginger

Place all herbs in the water, heat to boiling point, add the spices (clove, cinnamon) and leave it covered for 20-30 minutes. Strain. Sweeten with honey. Drink 1-2 cups a day during stressful periods or during seasonal change.

#### Essential oil:

##### *Purifying blend:*

- 2 drops tulsi
- 1 drop eucalyptus
- 1 drop citrus
- 2 drops clary sage

Diffuse the blend to purify mind and clear thoughts, or dilute into 1 oz. carrier oil (marula, sesame) and use for massage purposes.

### **Cautions, Warnings and Contraindications:**

#### Herb:

##### *Caution:*

Cautious use is recommended in gastritis, ulcer and other ulcerous intestinal diseases.

##### *Warnings:*

Oral overdose can lead to mild stomach and intestinal irritation.

#### Essential oil:

##### *Caution:*

Always use highly diluted in carrier oil (maximum 0.5%). Before using it for the first time, a patch test is highly recommended. Topical overdose of essential oil can lead to contact dermatitis.

*Warnings:*

Do not take tulsi essential oil internally.

*Contraindications:*

Pregnant women and infants should avoid use of the essential oil

**Possible herb / drug interactions:**

Tulsi is considered generally safe when following normal dosages