



## AROMATHERAPY

### Also Known As:

Aroma, Aroma Therapy, Aroma Treatment, Aromatic Oils, Aromatic Therapy, Essential Oils.

### Scientific Name:

See specific plant oil used.

### People Use This For:

Orally, aromatherapy is used for depression, relaxation, anxiety, and other uses. By inhalation, aromatherapy is used for insomnia, relaxation, stress relief, pain, anxiety, depression, dementia, agitation, myalgia, general feeling of well-being, headache, migraine headache, sexual stimulation (aphrodisiac), and many other uses.

Topically, aromatherapy is used for hair loss (alopecia), pain, chronic fatigue syndrome (CFS), fibromyalgia, osteoarthritis, and other uses.

### Safety:

**POSSIBLY SAFE** ...when used by inhalation and appropriately, short-term. The essential oils of bergamot (11452), bitter orange, juniper (7107), lavender (7107, 12213, 15534, 16393), lemongrass (7107), peppermint (3804, 7107, 13415), Roman chamomile, and rosemary (7107) have been safely used. ...when used topically and appropriately. The essential oils can be safely used when diluted, applied over small areas, and applied to unbroken skin (2612, 5177, 6972, 7107).

**POSSIBLY UNSAFE** ...when used orally. The safety of essential oils of aromatherapy when used orally depends on the specific oil being used. Oral use of essential oils is fairly uncommon; however, it does occur in some cases. Some essential oils can cause severe side effects when ingested in large undiluted amounts, including convulsions and kidney failure (8, 12, 19, 515). ...when applied topically in large amounts or on broken skin. The essential oils used in aromatherapy can be highly concentrated. Applying large amounts of some oils topically or on broken skin can result in significant systemic absorption and potential adverse reactions (6, 18).

**PREGNANCY AND LACTATION:** Insufficient reliable information available; avoid using.

### Effectiveness:

#### **POSSIBLY EFFECTIVE**

**Alopecia areata.** There is some evidence that topically applying lavender oil in combination with the essential oils from thyme, rosemary, and cedarwood improves hair growth in up to 44% of patients after 7 months of treatment (5177).

#### **POSSIBLY INEFFECTIVE**

**Postoperative nausea.** Inhaled peppermint oil does not appear to be more effective than inhaling isopropyl alcohol or saline for reducing postoperative nausea (13415). However, inhaling peppermint or other aromatics might relieve nausea by improving breathing patterns after surgery (3804, 13415).

#### **INSUFFICIENT RELIABLE EVIDENCE to RATE**

**Agitation.** Evidence regarding the efficacy of lavender aromatherapy for agitation is

conflicting. In one preliminary clinical study, nightly use of lavender oil in a bedside diffuser for 3 weeks reduced agitation scores in patients with various types of dementia (16393). However, continuous use of lavender oil on a pad attached to a patient's shirt had no effect in a small group of patients with advanced dementia (12213).

**Anxiety.** There's preliminary evidence that suggests using bergamot oil as aromatherapy does not help reduce anxiety in patients receiving concurrent radiotherapy (11452).

**Depression.** In mild to moderate depression, tincture of lavender appears to be slightly less effective than imipramine (Tofranil). Lavender might have some additive antidepressant effect with imipramine (9792).

**Psychological well-being.** Preliminary clinical research suggests that adding 3 mL of a 20% lavender oil and 80% grapeseed oil mixture to daily baths produces modest improvements in mood, compared with baths containing grapeseed oil alone (15534).

More evidence is needed to rate the effectiveness of aromatherapy for these uses.

### **Mechanism of Action:**

Aromatherapy is the therapeutic use of essential oils. The essential oils are the volatile oils of aromatic plants. They are usually extracted from the plants through steam distillation (15783).

In aromatherapy, the essential oils are usually vaporized by heating the oil or by applying the oil in a hot bath. In other cases, the oil is applied topically, for example, during massage, or to a specific tissue area such as the scalp, or to a painful joint. Much less commonly, essential oils are ingested. However, there is debate among practitioners as to whether topical or oral uses of essential oils are actually a part of aromatherapy.

The vaporized essential oils of aromatic plants are used to illicit physiological and therapeutic effects. It is theorized that the vapors or aromas of the essential oils stimulate the central nervous system (CNS) through the olfactory system via "olfactory transduction." This action on the CNS is thought to result in a variety of pharmacological effects, depending on the essential oil used, including feelings of relaxation, stress relief, calming, and other effects.

Inhaled aromas are thought to act much more quickly than applying essential oils to the skin or oral ingestion. Some lipophyllic constituents might directly penetrate the blood brain barrier (15783).

The pharmacological activity depends on the specific oil used; however, there is generally a lack of valid scientific information on how the essential oils used in aromatherapy might act on the CNS and other physiological systems.

Some proponents of aromatherapy believe that oils extracted from whole plants carry the "life force" of the plant. They suggest that the effects of the oil are more than the result of the individual chemical constituents of the oil, but instead carry special properties of "vitality" from the whole plant itself.

### **Adverse Reactions:**

Orally, the safety of the essential oils of aromatherapy depends on the specific oil being used. In some cases, the oils are well-tolerated when taken in appropriately diluted doses.

However, ingestion of undiluted oils can sometimes result in significant adverse events including convulsions and kidney failure (8, 12, 19).

By inhalation, aromatherapy is usually well-tolerated (3804, 7107, 11452, 12213, 13415, 15534).

Topically, aromatherapy essential oils can sometimes cause irritation of the skin, especially if the oils are not diluted. Some oils, such as bergamot oil, can also cause photosensitization and induce malignant changes (6, 18). Applying excessive amounts of highly concentrated oils to a large surface of the skin or on broken skin, can result in significant systemic absorption and increase the chance of serious side effects, such as convulsions.

### **Interactions with Herbs & Supplements:**

None known.

## Interactions with Drugs:

### CNS DEPRESSANTS

Interaction Rating = **Moderate** Be cautious with this combination  
Severity = High • Occurrence = Possible • Level of Evidence = D

Some aromatherapies such as lavender are thought to cause relaxation and drowsiness. Theoretically, using these aromatherapies might enhance the therapeutic and adverse effects of CNS depressants.

## Interactions with Foods:

None known.

## Interactions with Lab Tests:

None known.

## Interactions with Diseases or Conditions:

None known.

## Dosage/Administration:

**TOPICAL:** For the treatment of alopecia areata, a combination of the essential oils including rosemary 3 drops or 114 mg, thyme 2 drops or 88 mg, lavender 3 drops or 108 mg, and cedarwood 2 drops or 94 mg, all mixed with 3 mL jojoba oil and 20 mL grapeseed oil has been used. Each night, the mixture is massaged into the scalp for 2 minutes with a warm towel placed around the head to increase absorption (5177).

For general psychological well-being, 3 mL of a mixture of lavender oil 20% and grapeseed oil 80% added to bath water has been used (15534).

## Editor's Comments:

Rene Gattefosse, a French chemist and perfumer, was the first to use the term "aromatherapy" when he published a book on the subject in 1937. He is often referred to as the "Grandfather" of aromatherapy.

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