

AROMATHERAPY – THE SCIENCE OF SCENT

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INTRODUCTION:

- Aromatherapy literally means a therapy using fragrances. It is the art of blending fragrances for a specific healing purpose. Aromatherapy uses the potent vital energy of the plant known as essential oils. Essential oils are extracted from a plant's flowers, leaves, needles, branches, berries, seeds, fruits, rind or roots.
- Aromatherapy is one of the most ancient healing arts and traces its origin to 4500 B.C., an era when Egyptians used aromatic substances in medicines. Greeks also used plant essences for aromatic baths and scented massages. In ayurveda, there is mention of scented baths (bhyanga). Prof. Gantle Fosse, a French cosmetic chemist coined the term aromatherapy and described properties of essential oils.
- As they evaporate when exposed to air at ordinary temperature, they have also been known as ethereal oils. They represent the essence or active constituent of plant; hence they are also known as essential oils. They are secreted in special structures such as ducts, cell schizogenous or lysigenous glands, trichomes etc. They are commonly found in species of labiatae, rutaceae, piperaceae, zingiberaceae, umbelliferae, myrtaceae and lauraceae.
- They are extracted from plant by different oil extracting methods like Steam distillation, Solvent extraction, Maceration, Enfleurage, Expression, Supercritical CO2 extraction etc.



SOME ESSENTIAL OILS WHICH USE FOR DIFFERENT PURPOSES:

1. **Lavender:** Calming, sleep aid, and stress relief.
2. **Peppermint:** Energizing, focus-enhancing, and relieves headaches.
3. **Eucalyptus:** Respiratory support, decongestant, and invigorating.
4. **Tea Tree:** Antimicrobial, immune support, and skin healing.
5. **Lemon:** Uplifting, purifying, and mood booster.
6. **Chamomile:** Relaxing, soothing, and promotes relaxation.
7. **Rosemary:** Improves memory, concentration, and mental clarity.
8. **Bergamot:** Mood enhancer, stress relief, and anxiety reduction.
9. **Geranium:** Balancing, calming, and promotes emotional well-being.
10. **Cedar wood:** Grounding, calming, and supports sleep.
11. **Orange:** Uplifting, energizing, and promotes positivity.
12. **Sandalwood:** Relaxing, centering, and supports meditation.



MATERIALS USED FOR AROMATHERAPY

- 1. Essential oils:** Fragrant oils extracted from plants chiefly through steam distillation (e.g. eucalyptus oil) or expression (grapefruit oil). However, the term is also occasionally used to describe fragrant oils extracted from plant material by any solvent extraction.
- 2. Absolutes:** Fragrant oils extracted primarily from flowers or delicate plant tissues through solvent or supercritical fluid extraction (e.g. rose absolute). The term is also used to describe oils extracted from fragrant butters, concretes, and enfleurage pommades using ethanol.
- 3. Phytoncides:** Various volatile organic compounds from plants that kill microbes. Many terpene-based fragrant oils and sulphuric compounds from plants in the genus "Allium" are phytoncides, though the latter are likely less commonly used in aromatherapy due to their disagreeable odours.
- 4. Herbal distillates or hydrosols:** The aqueous by-products of the distillation process (e.g. rosewater). There are many herbs that make herbal distillates and they have culinary uses, medicinal uses and skin care uses. Common herbal distillates are rose, lemon balm and chamomile.
- 5. Infusions:** Aqueous extracts of various plant material (e.g. infusion of chamomile)
- 6. Carrier oils:** Typically, oily plant base triacyl glycerides that dilute essential oils for use on the skin (e.g. sweet almond oil)



BASIC METHODS OF AROMATHERAPY

- **Effleurage** – Gentle & firm massage stroke, always pushing towards heart. This promotes relaxation of muscular tissues and soothes nerve endings.
- **Petrissage** – Roll the flesh like kneading atta, on fatty areas. This stimulates circulation and accelerates lymphatic flow, thereby expelling the toxins.
- **Bathing** – Few drops of essence in hot water bathtub, to relieve colds, stress, headache, fatigue, flues and pains.
- **Inhalation** – Direct and rapid means of treating colds, aches, respiratory discomfort by inhaling the vapours from a bowl of steaming hot water.
- **Compresses** – For rheumatic pains, fever, and headache, bruises, abscesses, skin application. A piece of flannel is soaked in a bowl of water containing the oil, and pressed on the affected area.



BASE OILS AND BLENDING

Volatile oils are often mixed with milder carrier oil (usually vegetative oil) or are weakened (diluted) in alcohol. The essential oils should not be applied directly until diluted with base oils as they are in a concentrated form and can result in inflammation.

Essential oils are distilled from the leaves, bark, roots and other aromatic portions of a botanical. Essential oils evaporate and have a concentrated aroma. Carrier oils, on the other hand, are pressed from the fatty portions (seeds, nuts, kernels) and do not evaporate or impart their aroma as strongly as essential oils. Carrier oils can go rancid over time, but essential oils do not. Instead, essential oils "oxidize" and lose their therapeutic benefits, but they don't go rancid.

The only exception is lavender, which can be used directly on the skin for insect bites and stings. However, it is good to use any cold-pressed and micro filtered vegetable oil. Viscous and mineral oils do not permeate through skin, so as unfiltered oils as they block pores. Wheat germ oil or Vitamin - E may be added slightly to enhance the skin-care properties. Normally, 20 to 60 drops of essential oils is blended with 100 ml of the base oil, just prior to application. Blended oils are mixtures working in harmony, and they are known as synergistic blends. By rule, oils of the same botanical family will usually work efficiently. Blended and diluted oils cannot be stored for more than a month.



MODE OF ACTION

On inhalation, the useful volatile principles are transported by the lining of the nose and transmit signals to the brain, which is stimulated to release powerful neurochemicals in the blood stream. On topical use, these molecules permeate through the microscopic pores and hair follicles, which enter bloodstream of the capillaries. They act in harmony with the natural defences of the human body. Massage on the body tissues and the healing properties of the essential oils can combine to produce wonderful results. During massage, the blood circulation is stimulated and the toxic waste substances of tissue are carried to the - lymphatic system. Along with useful molecules, some oils contain powerful ketones, phenols and aldehydes also, and it should be carefully avoided by dilution.



BENEFITS OF AROMATHERAPY

Aromatherapy is often used for relaxation, stress relief, and mood enhancement. Some potential benefits include:

1. **Stress Reduction:** Certain essential oils may help promote relaxation and reduce stress levels when inhaled.
2. **Improved Sleep:** Lavender and chamomile oils, for example, are thought to have calming effects that may aid in improving sleep quality.
3. **Mood Enhancement:** Citrus or peppermint scents are believed to have invigorating properties and can uplift mood.
4. **Pain Relief:** Some essential oils, like eucalyptus or peppermint, are used topically and may have analgesic (pain-relieving) properties.
5. **Headache Relief:** Peppermint and lavender oils are sometimes used to alleviate tension headaches.
6. **Antimicrobial Effects:** Certain essential oils possess antimicrobial properties that may help combat bacteria or fungi.
7. It's important to note that while aromatherapy is widely used for these

purposes, scientific evidence supporting its effectiveness varies, and individual responses may vary as well. Always consult with a qualified healthcare professional for personalized advice.



SOME USEFUL TIPS FOR THE AROMATHERAPIST

- Avoid using essential oils during pregnancy.
- Use citrus oil (lime, orange oils) only after exposure to sunlight
- Do not use sage, thyme & cypress oils on subjects suffering hypertension.
- Wait for a minimum of the hour after meal for the treatment.
- Your clothing should not obstruct the movements and ensure clean warm hands and nails short.
- The subject is comfortably positioned, partly dressed or covered with towels.
- Unless you are a qualified



physiotherapist, do not use deep pressure. Use whole palm with gentle & firm movement always pushing towards the direction of the heart.

- The room should be warm with subdued lighting. Avoid disturbances except, optionally, a soft musical background.
- Chenopodium oil is contraindicated in pregnancy and in patients with impaired kidney or liver.
- Aromatherapy administered during radiotherapy was not beneficial.
- Avoid use of clove bud, clove leaf, nutmeg and cinnamon oils unless expert professional treatment is required.
- Two common oils, lavender and tea tree, have been implicated in causing gynaecomastia, an abnormal breast tissue growth, in prepubescent boys.

- Some very common oils like Eucalyptus are extremely toxic when taken internally. Doses as low as one teaspoon has been reported to cause clinically significant symptoms and severe poisoning can occur after ingestion of 4 to 5 ml.
- Toxic reactions like liver damage and seizures have occurred after ingestion of sage, hyssop, thuja, and cedar.
- The topical use of methyl salicylate heavy oils like sweet birch and wintergreen may cause hemorrhaging in users taking the anticoagulant warfarin.
- Keep all essential oils out of the reach of children.
- Keep flammable oils away from fire.
- Use small quantities for babies, children and the elderly.



STORAGE OF VOLATILE OILS

Volatile oils are liable to deteriorate on keeping. The deterioration is accompanied by change in colour, or increase in viscosity of the oil, or change in odour of the oil. Therefore, volatile oils should be preserved properly in well closed, well filled containers away from light and in cool place.

