

# AROMATHERAPY : A SYNERGY THERAPY

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Aromatherapy is the therapeutic use of plant derived, essential oils to promote physical and psychological well being<sup>1</sup>. Plant part used flowers, barks, stems leaves, roots. It is a type of complimentary and alternating medicine. Complimentary can be offered alongside standard treatment, alternating offered instead of conventional treatments<sup>2</sup>. It is sometimes used in combination with massage and other therapeutic techniques as part of a holistic treatment approach<sup>3</sup>. Scientific evidences of its effectiveness are growing. The essential oils used in aromatherapy have a different composition compared to other herbal products because the distillation used in aromatherapy recovers the lighter photochemical. (Fig. 1)



Fig. 1

**MODE OF APPLICATION (fig. 2):** Aroma therapist utilizes pure or blends of therapeutic essential oils issued through topical application, massage, inhalation or water immersion to stimulate desired response. The processes of application are:

- Aerial Diffusion:** The oils evaporate into the air. The aim is to give the air a specific fragrance or to disinfect it.
- Direct Inhalation:** The person breath the evaporating oils straight in. This is commonly used for respiratory disinfection, decongestion and expectorant as well as psychological effects.
- Topical Application:** Applied on the skin. Commonly used massage, bath, compresses and therapeutic skin care<sup>4</sup>.

**MATERIALS:** Materials that employed include:

- Essential Oil:** Fragrant oils extracted from plants chiefly through steam distillation or expression. Term also include fragrant oils extracted from plant material by any solvent

extraction.

- (b) **Absolute:** Fragrant oils extracted from flowers or delicate plant tissues through solvent or super critical fluid extraction.
- (c) **Carrier Oils:** Typically oily plant base triacylglycerides that dilute essential oils for use on the skin.
- (d) **Herbal distillates or Hydrosols:** The aqueous by product of the distillation process.
- (e) **Infusion:** Aqueous extract of various plant materials.
- (f) **Phytoncides:** Terpene based fragrant volatile organic compounds from plants that killed microbes.



(Fig. 2)

**THEORY OF AROMATHERAPY:** Two basic mechanisms are offered to explain the effects. One is inhalation of essential oils that stimulate the part of the brain connected to smell—the olfactory system and neurons a signal is sent to the limbic system of the brain that control emotions and retrieves learned memories<sup>5</sup>. This causes the chemicals to be released which make the person feel relaxed, calm or even stimulated. (Fig. 3) The other is the direct pharmacological effects of the essential oils<sup>6</sup>. If it is through massage the effect is to relax the person. In topical application they activate thermal receptors and destroy microbes and fungi. Internal and oral application may stimulate the immune system<sup>7</sup>.

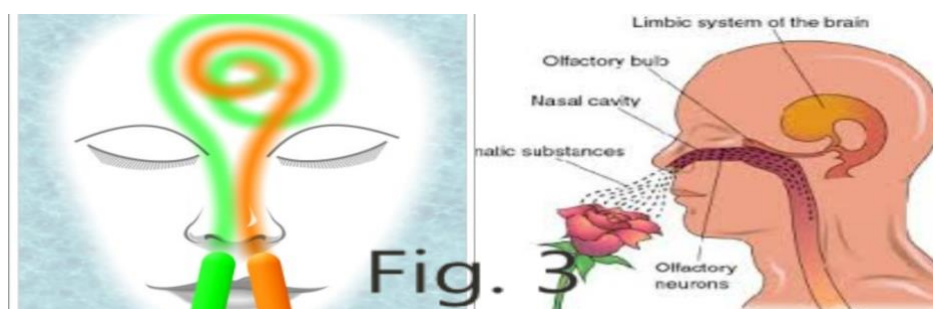


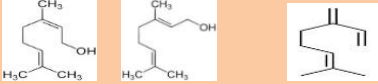
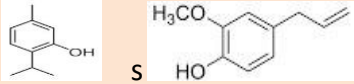












Fig. 3

## POPULAR USES <sup>8,9</sup>

NAME	MEDICINAL USES
Bay laurel	Antiseptic, diuretic, sedative
Basil	Depression, headache, migraine
Bergamol	Urinary tract and digestive tract
Black pepper	Stimulating circulation, muscular aches and pains
Citronella	Insect repellent
Clove oil	Topical analgesic, antispasmodic, antiemetic, carminative
Clary sage	Relaxant, anticonvulsive, anti-inflammatory, antiseptic
Chamomile	Sedative, anti-inflammatory, antiseptic, pain reliever.
Eucalyptus	Antiseptic, antibacterial, astringent, expectorant, analgesic.
Geranium	Diuretic
Lavender <sup>3</sup>	Analgesic, antiseptic, calming /soothing.
Lemon oil <sup>10</sup>	Mood lift, antistress, antidepressant
Peppermint	Pain reliever
Rosemary	Antiseptic, stimulant, diuretic.
Sandalwood	Aphrodisiac
Tarragon	Diuretic, laxative, antispasmodic, stimulant.
Tea tree	Antimicrobial, antiseptic, disinfectant
Thyme <sup>11</sup>	Stimulant, antiseptic antibacterial, antispasmodic.
Yarrow	Cold, influenza, joint inflammation

**CONCEPT OF SYNERGIST:** Synergist offered whole, authentic, unrefined, unaltered essential oil. Concept of synergy is an important and valuable concept in Aromatherapy. Certain chemical compounds have additive or antagonistic effect. An additive effect is observed when the combined effect is equal to the sum of the individual parts. An antagonistic effect is observed when the effect of one or both components is less when they are applied together than when individually applied <sup>8,9</sup>. This synergy can occur in aromatherapy via several possibilities. These possibilities include:

- (a) **Synergy within the essential oil itself:-** This concept means that within a given essential oil, synergy occurs between major and minor constituents or between major components that act together to significantly increase the whole oil activity<sup>12</sup>.
- (b) **Synergy between essential oils in a blend:-** This concept means that by combining two or more oils together, the aroma therapist creates a blend or product that is more effective than using singly essential oil. The category can reflect two potential pathways. These pathways include: synergy of therapeutic properties or synergy by chemical components <sup>13,14</sup>.
- (c) **Synergy between essential oils and carrier products:-** Aromatherapy Products designed to be applied to the skin are mostly placed with a carrier of same kind. This carrier includes lotions, gels, creams, vegetable oils, salt, milk, honey etc <sup>15,16,17</sup>. The base or carrier used is as important as essential oils. Researches support this idea that carrier base plays a synergistic role.

BLENDS	ACTIVITY
 <p>Geraniol+Nerol with Myrcene</p>	Enhances antibacterial activity <sup>12</sup> on gram negative & gram positive
 <p>Thymol + Eugenol rich</p>	Highly effective antimicrobial <sup>10</sup>
 <p>Peppermint + Caraway</p>	Relief of irritable bowl and dyspepsia <sup>10</sup>
 <p>Clove + Rosemary</p>	Antimicrobial activity <sup>13</sup> against bacteria & fungi
 <p>Oregano + Basil or Thyme</p>	<i>E.coli</i> and <i>P.aureginosa</i> <sup>14</sup>
 <p>Oregano + Marjoram</p>	<i>E.coli</i> <sup>14</sup>
 <p>Marjoram +Thyme +Rosemary</p>	<i>L.monocytogenes</i> <sup>14</sup>
 <p>Anise + Fennel + Caraway oil</p>	Dyspeptic discomfort with mild spasms of the gastrointestinal region, flatulence <sup>10</sup>
 <p>Eucalyptus + Pine needle oil</p>	Respiratory track (inhalation) <sup>10</sup>
 <p>Eucalyptus + Bergamot</p>	Skin problems
 <p>Lavender + Roman Chamomile</p>	Sedative <sup>10</sup>
 <p>Ocimum gratissimum +Aloe vera (carrier)</p>	Acne vulgaris <sup>15</sup>
 <p>German Chamomile + Aloe vera (carrier)</p>	Moisture to the skin <sup>16</sup>
 <p>Ocimum gratissimum + honey (carrier )</p>	Anti bacterial, antiseptic agent for wounds. <sup>17</sup>

**PRECAUTIONS:** Many essential oils are highly toxic and should be administered under the supervision of health care professional. Eucalyptus, warm wood and sage should never be taken internally. Citrus based essential oils should be avoided for at least four hours after their applications. Concentration should be checked before topical application. It may be irritating in high concentration.

Black pepper, camphor, eucalyptus and peppermint essential oils act as antidote to the homeopathic treatment. Certain essential oils should not be used by pregnant or nursing women or people with specific illness or physical conditions. Individuals with chronic and acute health condition should inform their healthcare provider before starting treatment with any essential oils.

Asthmatic, allergic, hay fever, skin (eczema or psoriasis) epilepsy, deep vein thrombosis individuals should use with extra care.

Essential oils are flammable and should be kept away from heat sources.

**SIDE EFFECTS** <sup>18,19</sup> : Side effect sometimes caused by aromatherapy tend to be very mild and do not last long. These include nausea, headache and some allergic reactions, skin sensitivity to sunlight. Citrus based essential oils make skin more sensitive to ultraviolet light, making person more susceptible to sunburn.

**CONCLUSION:** The concept of synergy is of great value to the aroma therapist in understanding which essential oils to put together for a common purposes as well as why.

There are so many creative way to utilize this idea of synergy through the combination of essential oils, experiment, take notes and get feedback.

#### **TIPS FOR BLENDING:**

**FOCUS:** Avoid trying to achieve too many goals with one formulation.

**SELECTION:** Essential oils that complement one another therapeutically, chemically, energetically and / or aromatically.

**DOSAGE:** higher dosages for acute conditions.

Use 3-5 essential oils in a formulation to avoid diluting down purpose.

When blending from a clinical framework: focus on either families or components and insure essential oils compliment goal.

Base is an important part of formulation. Choose base to complement the therapeutic goals of essential oils synergy.

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