AROMATHERAPY

WHAT IS AROMATHERAPY?

• Aromatherapy consists of using essential oils to benefit the body, mind, and emotions.
• Essential Oils are volatile plant extracts that contain hormones, vitamins, antibiotics, and antiseptics.
• Essential Oils are important to the plant’s immunity, metabolism, and health.
• Essential Oils are the most concentrated form of herbal extraction.
• The chemical constituents of the essential oils carry the plant’s therapeutic benefits.

WHAT IS AROMATHERAPY?

• The term "Aromatherapie" was coined by René-Maurice Gattefossé in 1928.
• He utilized the word to imply the therapeutic use of aromatic substances (essential oils).
• Since the beginning of Aromatherapy, the practice has encompassed human pathology and the treatment of different conditions (mental, emotional and physical) with essential oils.
• Aromatherapy over the years developed into a practice that adopted a holistic approach which encompasses the body, mind, and spirit.

Referenced from The East West School of Herbal and Aromatic Studies
AROMATHERPY HISTORY

• Aromatherapy has been used for over 6,000 years: infusions of aromatic herbs and gums in a fatty oil carrier
• In ancient times the Chinese burned incense to create balance and harmony.
• The Egyptians may have been the first to create a crude distillation machine for extracting cedar wood oil which they used for mummification.
• Crude distilleries were also found in Persia, (Mesopotamia), India, Arabia.

FRENCH & BRITISH STYLES

• Two styles of Aromatherapy have developed over the years:
• The French style is a holistic medical approach that uses essential oils aromatically, through transdermal, and also internal applications.
• The English style is based upon the aromatic use of essential oils through inhalation and massage therapy applications.

SENSE OF SMELL

• Fragrance molecules reach our brain through the breathing process.
• Inside the nasal cavity is the olfactory bulb which is covered with a membrane lined with approximately 10 million olfactory nerve cells.
• This olfactory membrane is the only place in the human body where the central nervous system is exposed and in direct contact with the environment.
SENSE OF SMELL

• Once the olfactory nerve detects an odor it signals the cerebral cortex which then sends a message directly the limbic system in the brain.
• The limbic system (Paleomammalian brain) is a set of brain structures which support a variety of functions including emotion, behavior, long-term memory, and olfaction.
• The immediate emotional response is registered in the amygdala; the retrieval of long-term memories occurs via the hippocampus.

SENSE OF SMELL

The sense of smell requires the mere presence of an odor molecule.
• Fragrant substances pass on to the limbic system without being registered by the cerebral cortex. Our subconscious receives and reacts to the scent before we consciously know we are in contact with an aroma.
• Odor stimuli releases neurotransmitters.

EFFECTS UPON NEUROTRANSMITTERS

• NEUROTRANSMITTERS are the brain chemicals that communicate information throughout our brain and body.
• They relay signals between nerve cells, called neurons.
• The brain uses neurotransmitters to tell your heart to beat, your lungs to breathe, and your stomach to digest.
• They can also affect mood, sleep, concentration, weight, and can cause adverse symptoms when they are out of balance.
EFFECTS UPON NEUROTRANSMITTERS

- Neurotransmitter levels can be depleted many ways.
- It is estimated that 86% of Americans have suboptimal neurotransmitter levels.
- Stress, poor diet, neurotoxins, genetic predisposition, drug (prescription and recreational), alcohol and caffeine usage can cause these levels to be out of optimal range.

http://www.neurogistics.com/TheScience/WhatareNeurotransmitters09CE.asp

EFFECTS UPON NEUROTRANSMITTERS

- There are two kinds of neurotransmitters – INHIBITORY and EXCITATORY.
- Excitatory neurotransmitters are not necessarily exciting – they are what stimulate the brain.
- Those that calm the brain and help create balance are called inhibitory. Inhibitory neurotransmitters balance mood and are easily depleted when the excitatory neurotransmitters are overactive.

BRAIN CHEMISTRY

- Odors stimulate the release of neuropeptides: hormones, neurotransmitters, and endorphins that are necessary for carrying information throughout our bodies.
  - serotonin (helps with mood stability)
  - dopamine (typically inhibited by adverse events)
  - GABA (reduces excessive brain activity and promotes a state of calm)
  - acetylcholine (involved with willful use of our muscles)
  - and norepinephrine (a stress hormone that underlies the flight and fight response effecting the heart rate).
- Endorphins can also be released which are important chemicals that help to reduce levels of pain and also stimulate sexual arousal.
EFFECTS UPON BRAIN WAVES

- Beta waves are emitted when the brain is aroused and engaged in mental activities—Basil, rosemary, black pepper, and cardamom.
- In the same way, the so-called 'stimulating' oils - basil, black pepper, rosemary and cardamom - work by producing a heightened energy response.

EFFECTS UPON BRAIN WAVES

- Alpha waves represent non-arousal and calmness.
- The brain wave most useful for influencing the mind and therefore the emotions is the alpha rhythm.—Orange blossom (neroli), jasmine, and rose.
- Sedative oils like Roman chamomile, bitter orange, bergamot, lavender, and melissa can help induce the brain to drop into alpha and more easily accept positive thoughts and make imagery and visualization effortless.

http://EzineArticles.com/1318535

SKIN ABSORPTION

- The molecules of the essential oils are very small and have a low molecular weight, which makes it easy for them to absorb into the skin.
- Essential oils are either absorbed through the stratum corneum, the upper layer of the epidermis, or through the sweat glands or hair follicles.
- Most is absorbed through the skin.
SKIN ABSORPTION

• After being applied to the skin the essential oil molecules are filtered through the epidermal cells with the lipid medium surrounding them.
• When the essential oils are absorbed into the epidermis they filter into dermis where the capillaries are located, and from there the molecules will enter into the blood and lymph fluids and be carried throughout the body.

AROMATHERAPY USES

• Essential Oils should be diluted in a carrier oil, lotion, cream, or water if applied to the skin
• Essential Oils can be used in a variety of ways:
  – Baths, foot baths, used topically in the shower
  – Inhalation: diffusion, nebulizer, ceramic ring, aromatherapy lamp, sprays, humidifiers, steam baths, saunas, dry inhalation (handkerchief)
  – Massage/body lotion or oil, liniments, ointments, compresses, chest rubs; wound and scar care
  – Gargles, mouthwash, nasal irrigation

USING ESSENTIAL OILS

• Per Robert B. Tisserand’s in his book The Art of Aromatherapy, “Firstly, essential oils are already used as home remedies by thousands of people, and I can see no harm in this provided that the oils are sensibly and correctly use
• Secondly, we must realize that self-treatment, although it has its place, also has its limitations. Do treat yourself for simple, common ailments, but for any long term, or deep-seated problem, seek professional advice. If in doubt, consult your health practitioner.”
PLANT IDENTIFICATION

• When working with essential oils it is imperative to know the specific species of the plant source you are purchasing or using for extraction.
• Common names can be misleading; also working with a genus of a plant without knowing the species, since the chemical constituents will be different
• This can lead to improperly using the essential oils with possible ill-effects.

PLANT IDENTIFICATION

• To use essential oils wisely you must know the botanical name for the plant.
• The first name for the plant is the genus: Biology: A taxonomic category ranking below a family and above a species and generally consisting of a group of species exhibiting similar characteristics. In taxonomic nomenclature the genus name is used, either alone or followed by a Latin adjective or epithet, to form the name of a species.
  http://education.yahoo.com/reference/dictionary/entry/genus

PLANT IDENTIFICATION

• The second name is the species: Biology: A fundamental category of taxonomic classification, ranking below a genus or subgenus and consisting of related organisms capable of interbreeding.
• The genus name is capitalized; the species name is not capitalized: Lavandula angustifolia.
• There are many types of Lavender, for example, so it is important to know the species in order to use it properly and attain the desired result.
ESSENTIAL OIL SOURCES

Examples of where Essential Oils are derived from:

- Flowers: Rose, Jasmine, Lavender, Ylang Ylang
- Leaves: Peppermint, Sage, Thyme, Rosemary
- Roots: Angelica, Vetiver, Ginger, Valerian
- Seeds: Anise, Coriander, Caraway
- Bark: Cedarwood, Rosewood, Cinnamon
- Resin: Myrrh, Benzoin (Styrax), Frankincense
- Rind of Fruits: Lemon, Lime, Bergamot, Orange

EXTRACTION METHODS


METHODS OF EXTRACTION OVERVIEW

- Steam Distillation Method – quick method; minimal deterioration of delicate essential oils, high quality
- Cold Press Method (Expression) – exclusively used for citrus oils derived from the peel (fruit rind)
- Cold or Hot Enfleurage Method – extraction with the use of animal fats
- Chemical Solvent Method – produces concrete or absolutes; purity depends on solvent contaminants
- Carbon Dioxide (CO2) Method – newer method; uses low temperatures and high pressurized CO2
EXTRACTION METHODS

• Steam: Steam extracts tiny droplets from the plant and carries the droplets upward. It creates the essential oil and hydrosol.
• Cold Press: Skin of fruit is shredded, mixed with small amount of water and the oil is extracted by pressure. No heat or solvent is used.
• Enfleurage: Freshly picked blossoms were pressed into fat until saturated with the essential oil; separated from fat with alcohol.

WHAT ARE HYDROSOLS?

• Aromatic hydrosols are created during the distillation process of essential oils.
• Hydrosols are also known as hydrolats, floral waters, hydroflorates, or distillates.
• Hydrosols contain water soluble plant components along with some essential oil molecules.
• They are wonderful to use for a more subtle effect or when the essential oil would be too aggressive.

DISTILLATION METHODS
CHOOSING BEST QUALITY ESSENTIAL OILS

• Be sure the essential oils are genuine and authentic.
• The essential oils should be plant derived, not adulterated or synthetic, free of artificial preservatives, colorings, or petrochemicals.
• Organically raised or perhaps wildcrafted
• If used properly, authentic and genuine plant derived essential oils cause less allergic skin and inhalant reactions compared to synthetics.

HOW TO TEST FOR PURITY

• Gas Chromatography-mass spectrometry (GC-MS) is the method used to analyze essential oils. Here are 3 tests to check the efficacy:
  1.) Rub essential oil between finger and thumb: essential oils do not feel greasy
  2.) Place a drop of essential oil on a sheet of plain white paper: should evaporate, no residue
  3.) Put a drop of essential oil into water: should float; water should not become milky or opaque

QUANTITY OF PLANT MATERIAL & COST

• It takes 2,000 pounds of rose petals to make 1 pound of rose oil; 160 pounds of lavender, and 1,000 pounds of jasmine = 1 pound of oil (estimates)
• Because of the prohibitive cost you will often see rose, jasmine, or neroli essential oil extended in a jojoba oil base. This should be noted on the bottle.
• Check the cost of essential oils to determine if they are good quality. If the entire line of essential oils has a similar price, they’re not genuine & authentic.
OVERHARVESTING OF ESSENTIAL OILS

• When purchasing essential oils please be mindful that both rosewood and sandalwood are often overharvested, especially if they come from India.
• Look to the source before purchasing so you know it has been sustainably raised.
• The Australian government has the most aggressive and successful program for protecting sandalwood from over-harvesting.

CONTRAINDICATIONS

• Essential Oils to Avoid with Cancer Patients: Aniseed, Basil, Bay Clove, Cinnamon, Fennel, Ho Leaf, Laurel, Nutmeg, Star Anise (www.essentialoils.co.za)
• Avoid all Essential Oils during Pregnancy except: Bergamot, Citronella, Clove Bud, Ginger, Grapefruit, Lemon, Lime, Bitter Orange, St. John’s Wort, Tuberose, Valerian, Ylang Ylang
• Remember to dilute the essential oils and use less often. Do a patch test to be safe. (Per Oshadhi USA)

CONTRAINDICATIONS

• Essential Oils to Avoid with High Blood Pressure: Cypress, Eucalyptus, Spike Lavender, Peppermint, Rosemary, Sage, Thyme (not linalol type)
• Toxic Oils to Avoid: Bitter Almond, Horseradish, Mugwort, Mustard, Pennyroyal, Rue, Sassafras, Tansy, Thuja, Wintergreen, Wormseed, Wormwood
(Per Oshadhi USA)
CONTRAINDICATIONS

• Do not use directly on skin (neat): Bay Laurel, certain Cedars, Cinnamon Bark, Citronella, Clove Bud, Ginger, Lemon, Lemongrass, Lime, Melissa, Oregano, Black Pepper, Black Spruce, certain Pines & Thymes, Wintergreen, Verbena

• Photosensitive Essential Oils: Angelica, Bergamot, Ginger, Grapefruit, Lemon, Lime, Bitter Orange, St. John’s Wort, Verbena

• Do a skin patch test to avoid allergic reactions.

CARRIER OILS

• Almond oil – Good for all skin types, helps relieve itching, soreness, dryness & inflammation; relatively resistant to rancidity

• Apricot Kernel oil – Very light and delicate, conditioning for the skin, absorbs easily into the skin; sensitive, aged, dry skin; less stable than other oils

• Avocado oil – All skin types, especially dry & dehydrated; absorbs well and is very resistant to rancidity; high vitamin and lecithin content

• Calendula oil – Soothes sore, inflamed and itchy skin conditions, burns, varicose and spider veins

• Carrot oil – An essential oil and a carrier oil; restores tone and elasticity, reduces scarring, psoriasis & eczema

• Coconut Oil – Semi-solid at room temperature, odorless, may irritate sensitive skin, very emollient, cooling effect so good for summer use

• Evening Primrose oil – Fine texture, superb moisturizer; premature aging; open capsule into carrier oil

• Grape Seed oil – All skin types, classic base in aromatherapy; antioxidant

• Hazelnut oil – Slight astringency, penetrates easily, strengthens capillaries, moisturizing, high essential fatty acid content, fine texture

• Jojoba oil – A liquid waxy substance that mimics sebum; inflamed skins, highly penetrative, spreads easily; does not get rancid

• Macadamia oil – Nourishing, vitamin rich

• Rosehip Seed oil – (Rosa Rubiginosa) Superb anti-aging, scarring, regenerates

• Sesame oil – Considered a warming oil in Ayurvedic medicine, relaxing for muscles and nerves, arthritis

• Walnut oil – Chemically similar to Jojoba Oil; usually blended with other oils

• Wheatgerm oil – All skin types, premature aging, eczema & psoriasis, scarring including acne facial scarring; has a strong fragrance, use with other oils

• Olive oil – Soothing, rheumatic conditions, hair care, cosmetics; strong aroma

• High Oleic Sunflower oil – Light oil; high oleic lasts longer without going rancid, great viscosity; [High Oleic=higher % of monosaturated fats]

• High Oleic Sunflower Oil – Good emollient, light oil, contains lecithin; (High Oleic=higher % of monosaturated fats)

• Get cold pressed, organic vegetable, nut or seed oils; refrigerate or keep in a cool, dry place for up to 9 months
MEASUREMENTS

• A 0.5% solution for babies and young children
• A 1% solution of essential oil in a base oil is the recommended rule of thumb for the elderly, pregnant (if cleared by their MD), and infirmed
• A 2% solution of essential oil in a carrier is the rule of thumb for most skin applications
• A 3% solution of essential oil in a carrier is the rule of thumb for therapeutic purposes
• Always do a patch test for skin sensitivity

MEASUREMENTS

• For massage combine a total of 30 – 40 drops of essential oils to 4 oz. of base oil or 15 – 20 drops in 4 oz. of lotion
• For full body baths, use 10 - 15 drops in a tub filled ¾ with water.
• For hand or foot baths use 4 to 8 drops of essential oil in a gallon of water
• For inhalation, 3 - 4 drops on a handkerchief or paper towel, in hot water or diffuser (nebulizer); 3 – 5 drops in bowl of hot water

MEASUREMENTS

• For a room spray put 2 – 5 drops per 4 oz. water
• Gargle/mouthwash: 1 – 2 drops per ¼ cup water
• Compress: 5 drops per cup of water
• Liniment: 18 drops per 1 oz. carrier
• For compresses use 4-8 drops of an essential oil in approximately 4 oz. of hot water. Dip gauze or cotton wool into the mixture, wring out excess, place on treatment area and cover with plastic wrap and then a towel or blanket. The compress can remain on for 2 hours.
HOW TO KEEP ESSENTIAL OILS

• Essential Oils should be stored in a tightly closed dark glass bottle.
• They are sensitive to light, air, and changes in temperature. Avoid exposure to heat.
• Refrigerate or freeze your essential oils. Should remain fresh for 1-3 years after extraction.
• Watch for oxidation of essential oils (citrus, tea tree). If loses scent or gets sticky, throw out.

PROPER SANITATION

• When using essential oils be careful not to contaminate your oils.
• Wash your hands before doing any blending.
• Be sure your working surface is sanitized.
• Do not touch the opening of the bottle where the oils come through.
• Turn the bottle over, tap the bottom of the bottle and wait for the drops to go into your carrier solution, counting as you go along.
• Wash off any residue on the side of the bottle.
• Always date and list ingredients on the label.

EUCALYPTUS
(Eucalyptus radiata or globulus)

www.purenature.co.nz
**EUCALYPTUS**  
(Eucalyptus radiata & globulus)

- Eucalyptus: colds & flu, air purification, muscle ache & strains, arthritis, poor concentration, mental fatigue, insect bites & stings, uplifting effect on psyche
- Helpful as a decongestant, lung congestion, expectorant, sore throat, antiseptic, antiviral, cools & reduces inflammation, all-purpose oil
- No known contraindications
- Blends well with medicinal oils (tea tree, ravensare, other eucalyptus types), lavender

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**LAVENDER**  
(Lavandula angustifolia)

- Lavender: (Lavandula angustifolia or also called Lavandula officinalis): skin care, nasal & bronchial congestion, mild headaches, minor cuts, scrapes, burns, itching insect bites
- Great for nervous tension and insomnia
- No known contraindications (know the species of lavender you are working with)
- Blends well with most oils; is a useful blending oil to harmonize a mixture

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*mostbeautifulflower.com*
**LEMON**
(Citrus limon)

- Lemon: can be used as an air purifier to disinfect a room, as a surface disinfectant, for nausea and motion sickness
- It has a refreshing, clean scent; stimulates digestion, lymphatic and liver stimulant, cellulite, obesity, water retention
- Caution: Can cause photosensitivity or skin irritation. Watch for oxidation.
- Blends well with other citruses, tea tree, lavender, needle oils, eucalyptus (globulus and radiata)

**ORANGE**
(Citrus sinensis)
**ORANGE**
(Citrus sinensis)

- Orange: warm, joyful aroma; anti-depressant, colds and flu, cellulite, water retention, uplifts spirits, relieves stress & nervous tension, antiseptic and bactericidal
- Orange oil is useful as an antispasmodic, mild sedative; helpful for heart palpitations
- Caution: Can cause photosensitivity or skin irritation. Watch for oxidation.
- Blends well with other citrus and spice oils, lavender, cedarwood, the chamomiles

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**PEPPERMINT**
(Mentha piperita)

- Peppermint: fresh menthol scent; digestive problems, nausea, headaches, joint and muscle discomfort, head lice
- Also helpful for motion sickness, indigestion, clears the mind, useful for studying
- Caution: Do not use on children under 30 months old; use care as too much can burn the skin
- Blends well with lavender, geranium, or any blend needing some added zest
ROSEMARY
(Rosmarinus officinalis)

- Rosemary: soothes sore muscles & joints, stimulates circulation, arthritis, headaches, relieves menstrual pain and nervous tension, memory, regenerative for the skin
- This oil is often adulterated or diluted. Pay attention to the source and be able to trace back to the manufacturers.
- Caution: Children under 10 years of age and pregnant women should use with care.
- Blends well with medicinal oils (eucalyptus, tea tree), rose, lavender, geranium, and helichrysm

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TEA TREE
(Melaleuca alternifolia)

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www.flickr.com
**TEA TREE**  
(Melaleuca alternifolia)

- Tea Tree: Minor scrapes, cuts, burns, insect bites, small infected areas, tooth or gum ache, blisters, blemishes/acne, candida-related conditions
- Has a fresh, warm, herbal aroma; is antiviral, antibacterial, antifungal; colds & flu, coughs, sore throats, has wide spectrum action
- No known contraindications; watch for oxidation
- Blends well with medicinal oils (tea tree, ravensare, thyme), lavender, sandalwood

**RESOURCES**

- “The Practice of Aromatherapy” by Jean Valnet, MD
- “The Art of Aromatherapy” by Robert B. Tisserand
- “Aromatherapy Workbook” by Marcel Lavabre
- “Advanced Aromatherapy” by Kurt Schnaubelt, PhD
- “The Complete Book of Essential Oils & Aromatherapy” by Valerie Ann Worwood
- “Aromatherapy An A-Z” by Patricia Davis
- “Aromatherapy for Bodyworkers” by Jade Shutes

**WEBSITE RESOURCES**

- Original Swiss Aromatics: [www.originalswissaromatics.com/](http://www.originalswissaromatics.com/)
- Tisserand Aromatherapy: [www.tisserand.com/](http://www.tisserand.com/)