Aromatherapy Deluxe
Traditional Roots Institute at NCNM
October 2014

goals

• Understand why the sense of smell can be used therapeutically.
• Understand why essential oil odorant molecules produce physiological actions in humans.
• Review the physiological actions, therapeutic benefits, and applications of 10 essential oils: Frankincense, Eucalyptus, Cypress, Peppermint, Rosemary, Lemon, Geranium, Marjoram, Clary sage, and Vetiver.
• Discuss the physiological actions, chemical compositions, therapeutic benefits, and applications of 6 exotic essential oils: Neroli, Myrrh, Ylang Ylang, Rose, Sandalwood, and Jasmine.
• Discuss safety issues of using essential oils, including dosing, duration, and contraindications.
• Practice creating a aromatherapy blend/protocol for an individual case and general conditions.
• Learn how to simply and effectively include aromatherapy in your practice.

Sense of smell

• Not regulated by the thalamus (Greek for room). Thalamus is a gate to our consciousness.
• This means the sense of smell cannot be buffered out.
• Olfactory cortex is the brain center used when experiencing emotions, memorizing events.
• This is why an odor can trigger such a strong response.

Sense of smell

• Why is working with the sense of smell beneficial therapeutically?
• Psychoneuroimmunology
• Perception of safety/danger
• Happy/not happy
• Immune function increases w/ parasympathetic system
• Immune function decreases w/ sympathetic function

Sense of smell

• Perception is not reality.
• Rather it is an ‘image’ or ‘idea’ of what reality is.
• We map perception through all five senses throughout the body.
• Hypothalamus responds to perception.
• Sense of smell enables us to directly speak to the sensory input the hypothalamus receives – this can change perception.

Sense of smell

• Our limbic system is located between our brain stem (unconscious) and cerebral cortex (rational/conscious).
• The limbic system is a translator, mediator, regulator between our unconscious and conscious aspects of brain function.
• Olfaction transmits to the limbic system faster than other senses.
• Also can sometimes travel directly to cortex.
• This is a powerful tool.
• Our evolutionary survival has depended on it.
• So has the survival of other species in our environment.
Functional Group Families Derived From Mevalonic Acid Pathway

• Monoterpenes
• Sequiterpenes
• Monoterpenoids
• Sequiterpenoids
• Oxides
• Esters
• Aldehydes
• Ketones
• Lactones

• Chemopreventative
• Anti-inflammatory
• Anti-infectious
• Chemopreventative
• Antinociceptive
• Sedative
• Anti-infectious
• Wound healing
• Anti-inflammatory

The Four Qualities

The 12 Main Classes of Compounds

TCM – Five Elements

Chakra Balancing

xenohormesis

• Essential oils stimulate both the energetic chakra centers and the associated glandular systems simultaneously.
• Ideal approach with essential oil therapy: metaphysical, emotional, and physical
• Mu and Shu points complement this work

• Xenohormesis: the phenomenon of a “foreign organism’s stress response producing chemicals that yield benefits to another organism.

• “Biological principle that explains how environmentally stressed plants produce bioactive compounds which can confer stress resistance and survival benefits to animals that consume them.”
• Plants can confer their stress tolerance.
xenohormesis

- Cellular stress response and “stress chaperones” are believed to be about 2.5 billion years old.
- However, the evolution of plant stress response has been evolving for 1 billion years.
- The more stress a plant has been under, the more beneficial biological constituents it will produce.

- These stress response molecules can either benefit the animal directly, or it can activate its own stress response system.
- This is different that vitamin or calorific benefits. These provide immediate benefits.
- Polyphenols and other EO constituents signal a trigger to stimulate stress response and add longevity.

Essential oils and Antinociception

Serotonergic system

- This is the receptor/mechanism set that is primarily used for antidepressant drugs such as benzodiazepenes, and other non-benzodiazepene antidepressants.
- Combined effects of antinociceptive and anxiolytic action
- 5-HT(1A) receptors – rosemary
- Bergamot, Neroli, other citrus oils

Essential oils and Antinociception

- Beta-caryophyllene – produces release of beta-endorphin (via opioid receptor activation), increases analgesic effect of morphine.
- Beta-caryophyllene is found throughout essential oil chemistry
- Trans-caryophyllene also has been shown to have antinociceptive activity through this pathway.

Other essential oil components that are believed to work through the opioid system:

- Lemon EO
- Ginger EO
- Bergamot EO shown to block spinal signal-regulated protein kinase produce by partial sciatic nerve ligation.
- Bergamot EO or linalool improved the effectiveness of morphine, even at ineffective doses of morphine

• [1]-linalool has shown both antinociceptive and anti-inflammatory actions.
• The antinociceptive actions are believed to work through both the opioid and the cholinergic pathways.
• The parasympathetic nervous system sends almost all of its signaling through the cholinergic pathway (acetylcholine).+
Essential oils and antinociception

- Tarragon essential oil produced significant antinociception and anti-inflammatory actions in mice.
- Citronellol – produced significant antinociception and anti-inflammatory actions. Believed to work through inhibition of “peripheral mediators and central inhibitory mechanisms”.
- Naloxone failed to reverse these effects. Other pathways than opioid receptors involved in this analgesic effect.

Top 10 essential oils for clinical aromatherapy by Chakra

- Frankincense
- Eucalyptus
- Cypress
- Peppermint
- Rosemary
- Geranium
- Lemon
- Marjoram
- Clary sage
- Vetiver

Crown Chakra
Brow Chakra
Brow/Throat Chakra
Throat Chakra
Throat/Heart Chakra
Heart Chakra
Heart/Solar Plexus Chakra
Solar Plexus Chakra
Sacral Chakra
Base Chakra

Top Ten Oils for clinical Aromatherapy by Elements

- Metal: Frankincense, Eucalyptus, Cypress, Clary Sage
- Water: Geranium, Cypress
- Wood: Peppermint, Clary Sage
- Fire: Rosemary, Marjoram, Lemon
- Earth: Frankincense, Marjoram, Lemon, Geranium, Vetiver, Peppermint

Art by MoeChai

Frankincense

Physiological
- Anti-catarrhal/Expectorant
- Anti-depressant
- Nervous system tonic
- Antiseptic
- Analgesic
- Vulnerary
- Uterine Tonic
- Anti-inflamatory
- Chemopreventive

Boswellia Carterii

Eucalyptus

Eucalyptus Globulus

Physiological
- Analgesic
- Anti-bacterial/fungal
- Anti-inflammatory
- Decongestant
- Anti-neuralgic
- Febrifuge/rubefacient
- Immune tonic

Cypress

Cupressus sempervirens

Physiological
- Anti-bacterial
- Anti-rheumatic
- Anti-spasmodic
- Astringent
- Calmative
- Lymphatic Decongestant
- Neurotonic
- Phlebotonic
- Prostatic decongestant
Peppermint
Mentha piperita

Physiological
- Analgesic
- Anti-bacterial
- Anti-catarhal
- Anti-fungal/viral
- Anti-inflammatory
- Hepatic/choleretic
- Digestive
- Febrifuge

Chemotypes
- Rosemary, Rosmarinus officinalis
- Chemotypes – 1,8 cineol, verbenone, camphor
- Cineol – general stimulant, heart tonic, muscles
- Verbenone – gentle, liver and gallbladder tonic, skin
- Camphor – respiratory issues, elimination

Rosemary
Rosmarinus officinalis

Physiological
- Cardiotonic
- Analgesic
- Emmenagogue
- Nervine (stimulant)
- Stimulant/Cephalic
- Hepatic
- Anti-depressant

Marjoram
Origanum marjorana

Physiological
- Analgesic
- Anti-fungal
- Antiviral, Antibacterial
- Antispasmodic
- Carminative
- Nervine & Sedative
- Hypotensive
- Vulnerary
- Antioxidant

Lemon
Citrus limon

Physiological
- Antimicrobial
- Diuretic
- Antispasmodic
- Anti-rheumatic
- Carminative
- Diaphoretic/febrifuge
- Astringent
- Hemostatic

Geranium
Pelargonium graveolens

Physiological
- Analgesic
- Anti-bacterial/fungal
- Anti-inflammatory
- Lymphatic decongestant
- Pancreatic stimulant
- Astringent
- Sexual tonic
Clary Sage

- Physiological
  - Nervine
  - Anti-depressant
  - Sedative
  - Anti-spasmodic
  - Emmenagogue
  - Hypotonic
  - Euphoric
  - Anti-fungal
  - Analgesic

Salvia sclarea

Vetiver

- Physiological
  - Anti-depressant
  - Immune tonic
  - Anti-rheumatic
  - Hepatic/pancreatic stimulant
  - Calmative
  - Anti-spasmodic
  - General tonic

Vetiveria zizanoides

Top Ten essential Oils For Clinical Aromatherapy

**Skeleton Blends**

- Frankincense, Eucalyptus, Cypress
- Frankincense, Cypress, Rosemary
- Frankincense, Rosemary, Lemon
- Frankincense, Lemon, Geranium
- Frankincense, Geranium, Clary Sage
- Eucalyptus, Cypress, Peppermint
- Eucalyptus, Peppermint, Rosemary
- Eucalyptus, Peppermint, Lemon
- Eucalyptus, Lemon, Rosemary
- Eucalyptus, Marjoram, Cypress

Clary Sage, Frankincense, Vetiver

- Rosemary, Lemon, Geranium
- Rosemary, Marjoram, Lemon
- Rosemary, Geranium, Clary Sage
- Rosemary, Lemon, Vetiver
- Rosemary verbenone, Marjoram, Frankincense
- Geranium, Clary Sage, Cypress
- Geranium, Clary Sage, Lemon
- Geranium, Lemon, Vetiver
- Geranium, Marjoram, Vetiver
- Geranium, Clary Sage, Vetiver

- Cypress, Lemon, Clary Sage
- Cypress, Rosemary, Geranium
- Cypress, Marjoram, Geranium
- Cypress, Frankincense, Vetiver
- Cypress, Rosemary, Lemon
- Peppermint, Rosemary, Lemon
- Peppermint, Marjoram, Lemon
- Peppermint, Geranium, Lemon
- Peppermint, Eucalyptus
- Peppermint, Cypress

Marjoram, Geranium, Lemon

- Clary Sage, Rosemary, Vetiver
Exotic Essential Oils

- Some aromatherapists would say exotic essential oils are ones that are not commonly used such as mastic or violet leaf.
- In this class we are looking at essential oils that are very well known, but each comes from an ‘exotic’ location or specific region/ecosystem.
- Each of these oils are in limited supply and are considered precious in the global community. Some are even endangered species.
- These essential oils are treasured and extremely beautiful to smell.
- They have also been revered over the ages by many cultures and civilizations as some of the strongest healing and spiritual agents on the planet.
- Neroli, myrrh, ylang ylang, rose, sandalwood, jasmine

Neroli

Citrus aurantium var. amara

Physiological
- Antidepressant
- Antispasmodic
- Anti-septic
- Carminative
- Cicatrizing
- Digestive
- Nervine

Neroli Phytochemistry

- Methy|l anthranilate
- An ester found in a number of other essential oils including: jasmine, bergamot, tuberose, gardenia, ylang ylang.
- Found in concord grapes. Also reported to be excreted from some musk glands. Bird repellent.
- This ester has a fruity grape scent with musky and berry tones.
- Can be synthesized.

Neroli harvesting / production

1. https://www.youtube.com/watch?v=1r1986h7p8c - Tunisia
2. https://www.youtube.com/watch?v=2egl6ticjZY - Morocco
3. https://www.youtube.com/watch?v=H08r9p7mM88 - France
Neroli Research

- A study looked at the 24 hour ambulatory BP and cortisol levels of 83 pre and hypertensive pts.
- Experimental group inhaled aromatherapy blend while the placebo group was given artificial fragrance.
- Pts wore necklace with essential oils / fragrance during the day.
- At night put two drops EO on stone.
- 4 week intervention.
- SBP and DBP lowered within 10 minutes after EO inhalations.
- SBP and DBP increased after inhalations of synthetic fragrance.
- SBP and DBP baseline averages lowered over 4 week period.
- Cortisol levels lowered in EO group.
- Increased after inhalation of synthetic fragrance.
- Blend used in BP / cortisol research:
  - Lavender, ylang ylang, marjoram, neroli
  - 20 :15 :10 :2 ratio
  - Designed to have a soothing and relaxing effect on the nervous system and lower BP.
- Important to note an international aromatherapist was consulted to design the blend for the study.
- Lavender relaxes cardiac system, hypertension.
- Ylang ylang lowers BP, relaxes emotions and nervous system.
- Marjoram lowers sympathetic nervous system, stimulates parasympathetic nervous system.
- Neroli soothes emotions, relieves palpitations, shock and fear.

Neroli research

- In vitro studies show antioxidant and antitumor effects.
- In vitro antibacterial effects against Pseudomonas aeruginosa.
- Strong antifungal effects compared to Nystatin.
- Lavender and Neroli ranked highest among essential oils tested for their selective antibacterial actions.
- Lavender and Neroli essential oils inhibited growth of pathogenic bacteria and had no effect on beneficial bacteria (in vitro).
- More research is needed to explore safety and tolerability, and verify the results.

Neroli research

- Randomized controlled trial with 63 postmenopausal women.
- Inhaled .1% or .5% neroli EO in almond oil 5 min 2 x daily for 5 days.
- Compared to control group:
  - Increased sexual desire, better scores on Menopause Specific Quality of Life Questionnaire.
  - Significantly lower diastolic BP.
  - Tended to improve pulse rate, cortisol, and estrogen levels. No statistical differences.

Neroli

- Energy: Cool with neutral moisture.
- Elements: Fire (Wood).
- One of the best nervous system tools in aromatherapy – sedative and antidepressant.
- Insomnia, depression, with states of anxiety / agitation.
- For unstable and intense emotional person who becomes agitated easily due to sensitivities.
- This leads to feelings of deficiency and stress, subsequently, depression.
- Neroli helps bring out suppressed frustration and/or anger. This can prevent depression from escalating into hopelessness, despondency.
- Neroli is a tool to open gates of release. Emotions that need to move / express to relieve depression and sensitivities.

Neroli Energetics

- Crown Chakra.
- Promoting connection between conscious and subconscious – open gate to connect and release.
- When not disconnected from your personal truth, able to make choices. See your yourself in a complete fashion.
- This promotes feelings of recuperation, safety, restoration.
- Is used primarily as a top note, but also can lend a base note quality in a blend.
- Neroli is pain relieving through its antispasmodic action.
- Also alleviates emotional pain, fears, from insecurities.
- Excellent essential oil for skin care, night applications are best to avoid photosensitization effects.
Neroli energetics
- Balances fire element - excess
- Heart Yin Deficiency can cause heat
- Fire quality more immediate
- Meridian AC wise, not a difference between HT heat, HT fire
- Clear Heart Fire Heat –
  - Sensation of heat in the chest
  - Thirst
  - Red face / eyes, tongue ulcerations
  - Mental restlessness
  - Dark, scanty urine, sometimes burning
  - Red tip of tongue, yellow coating
  - Bursting, overflowing pulse
- Why is relieving heart heat/fire important?
- Where do we see a heart fire pattern?
- Can stress or pain lend itself to produce this cycle
- Can also see this cycle produce itself with mood disorders. But that cycle does not need substance to perpetuate.

Neroli Applications/ Formulas
- Heart Fire Protocol – modified from Jeffrey Yuen and David Tircuit
  - HT-7, P6 and 8, BL 14, BL15, CV 14 and 17, GB 15
  - For depression use CV15
  - Heart Fire Blend:
    - Neroli,ylang ylang, Sandalwood: 2:2:1
    - Use in a cooling base oil: coconut, apricot kernel. 6-10% dilution
    - Can use on points, or apply to chest, wrists, over kidneys.
    - This blend can be used for other imbalances, will discuss further later
- Key essential oil to use during labor, delivery, and post partum.
  - Both mom and baby benefit from calming, antidepressant effects.
  - We will discuss blends / protocols in more detail with rose, jasmine, and ylang ylang.
  - Neroli, sweet orange, petitgrain, or bergamot combined.
  - Using essential oils from all three parts of the plant allows extension of the neroli essential oil
  - This creates a blend for frustration, over seriousness, tension, stress
  - Sweet Orange (3), petitgrain (2), neroli (1)
  - What would be the difference in using bergamot?
  - Skin rejuvenation oil
  - 1 oz jojoba oil, grapeseed oil, evening primrose oil
  - 10 drops neroli EO
  - 10 drops rose (for damaged skin)
  - 10 drops lemon (for acne)
  - 10 drops sandalwood (cold sore prevention, skin concerns such as skin tags, cancer prevention)
  - 20 drop total gives 2.5% can use 1%

Neroli Applications/ Formulas
- Neroli hydrosol (water) – 1 tsp can be added to bath water for adults or children. Soothes digestion, agitation, benefits mood/ sleep.
  - 1 tsp neroli hydrosol can also be taken with water for intestinal discomfort. Diffuse in humidifier.
  - Facial toner: 2 oz neroli hydrosol, 4 drops neroli essential oil. Shake before spraying.
  - Skin rejuvenation oil
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Top Ten Essential oils for clinical aromatherapy
- Skeleton Blends
  - Frankincense, Lemon, Geranium, (Neroli)
  - Geranium, Clary Sage, Cypress, (Neroli)
Neroli personality profile

Myrrh

Commiphora molmol

Myrrh Phytochemistry

- Physiological
- Anti-inflammatory
- Antiseptic
- Anti-fungal / antiviral
- Expectorant (warming)
- Sedative
- Emmenagogue
- Digestive/Pulmonary stimulant
- Vulnerary

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Myrrh Harvesting/ production

1. https://www.youtube.com/watch?v=hlFofrgiLLs - India
2. https://www.youtube.com/watch?v=3OE5l1JFNp4 - Somalia
3. https://www.youtube.com/watch?v=BoK7lialB5o Frankincense in Somalia start at 4.49 minutes

Myrrh phytochemistry

- Furaneodesma-1,3-diene
- Pain relieving via opioid receptors
- Discussion boards on pain. They got the idea from research on this molecule.
- Adding Myrrh to regimen for opioid withdrawal
- Stimulant/warming yet calming, relieving depression
Myrrh research

• Both boswellia and myrrh species have been recently studied for their anti-cancer activities.
• Earlier works (2001 – 2011) have shown positive results for cytotoxic (anti-tumor), elemene passes through blood brain barrier. Effective against cerebral malignancy in mice.
• Analgesic, anti-inflammatory, hypolipidemic, and antiparastic (liver fluke) actions.

Myrrh research

• Current study evaluated Boswellia carterii and in Commiphora pyracanthoides in vitro against the following cancer cells lines: breast (MCF-7), hepatocellular carcinomas (HepG2), cervixal (HeLa), skin(HS-1), and small cell lung cancer (A549).
• Myrrh proved stronger than frankincense. Strongest results for the breast and skin cell lines.
• C. africana

Myrrh Energetics

• Energetics: Warm and dry
• Elements: Earth and Metal
• Strengthen Spleen
• Clear lethargy, cold, congestion, dampness due to weak Spleen/Pancreas
• Astringent – chronic diarrhea and vaginal discharges
• Clear LU/ST heat

Myrrh energetics

• Chakra: Base and Crown
• Inspiration
• Inner Stillness and Peace
• Soothing, clarify uplift the Yi (Intelect)
• Brings peace to Metal Element as the funeral herb to ease grief and sorrow
• Healing vulnerary- appearing only when plant is wounded. Relieves wounds of loss/rejection
• Heightens awareness of Self. Like the soul, formless and free. Separate from the ego
• Bring forth dreams allow them to be expressed
• Ancient Hebrews drank w/wine to prepare for religious ceremonies.
• Strengthens psychic centers at base of spine and crown of head
• Bridge between Heaven and Earth

Myrrh Application Formulas

• Opiate withdrawal support
• Myrrh (2), Neroli (2), Geranium (3), Marjoram (1), Lemon (3)
• Myrrh – earth and metal
• Neroli – fire and wood
• Geranium – earth and water
• Marjoram- earth and fire
• Lemon – earth and fire

Myrrh applications formulas

• Oral / dental
• Wounds / Broken bones
• Skin Ulcers, fungal infections
• Urogenital congestion, infection
• Lung congestion
• Intestinal inflammation, infections
• Diarrhea
• Varicose veins
• Can be added to formulas as an additive for pain relief.

• Broken toe or finger:
• Apply 2 drops Myrrh and 2 drops Frankincense neat every 4 hours
• Can apply appropriate salve over this, such as Arnica.
• Can use this protocol for first 48 hours
• Then change essentials oils for 2-3 days before returning to this protocol if needed
**Myrrh personality profile**

**Ylang ylang**

- Aroma
- Visceral
- Movement / Shape
- Emotional
- Physical
- Taste
- Association

**Ylang Ylang**

*Cananga odorata var. genuina*

- **Physiological**
  - Antidepressant
  - Anti-inflammatory
  - Hypotensive/tachycardia
  - Sexual tonic – impotence/frigidity
  - Antispasmodic
  - Calmative
  - Expectorant
  - Antifungal

**Ylang ylang phytochemistry**

- Aldehydes – furfural, benzaldehyde
- Terpenes – alpha-pinene
- Phenylpropanes – eugenol
- Esters and alcohols – methyl benzoate, methyl salicylate, linalool, geraniol, nerolidol, nerol, farnesol
- Phenol esters – cresyl methyl ether
- Sequiterpenes – caryophyllene, cadinene

**Ylang ylang harvesting/ production**

- [https://www.youtube.com/watch?v=Nn9R1G7Wjzw](https://www.youtube.com/watch?v=Nn9R1G7Wjzw) Madagascar
- [https://www.youtube.com/watch?v=QtFEfZLy4GE](https://www.youtube.com/watch?v=QtFEfZLy4GE) East Java
- [https://www.youtube.com/watch?v=j4TAdgHetbU](https://www.youtube.com/watch?v=j4TAdgHetbU) Vero Beach

- David Fairchild created a tropical plant conservatory in Coral Gables, FL
Ylang ylang research

• 140 volunteers (UK) were randomly assigned either ylang ylang, peppermint, or no aroma (control).
• Cognitive performed and mood scales were completed before and after aroma intervention.
• Peppermint improved memory and alertness.
• While ylang impaired memory and alertness, but significantly increased calmness.

Ylang ylang research

• Another study evaluated physiological parameters after transdermal absorption of ylang ylang.
• Self evaluation of mood as well (VAS).
• Blood pressure significantly decreased, increased skin temperature.
• Ylang group self evaluated as more calm and relaxed than control group.

Ylang ylang research

• Dr. Tim Betts, Birmingham University Seizure Clinic, Queen Elizabeth Psychiatric Hospital.
• Found in the hospital that two aromatherapy massages a month significantly reduced frequency of seizures. Returning to normal 2 to 6 months after tx stopped.
• Pts were allowed to choose their own oil. Almost all chose ylang ylang.
• Once Jasmine was included in the selection, many pts chose jasmine.
• Researchers felt this blind choice was important as many people with epilepsy have altered sense of smell.
• Felt their choice more reflected the body knowing what it needed. They discussed a lack of a way to verify/test this.

Ylang ylang research

• Next, they had 25 pts do a series of 6 massages with their oil
• Then one auto hypnotic technique, associated the smell of the oil with relaxing.
• Pts then carried the oil with them, and would smell it when they felt the warning signs of a seizure.
• Contrasted this with a group (25) who only did the auto hypnotic technique with the oil.
• Many participants were able to control their seizures completely.
• Some found eventually they didn’t need to carry the oil with them but could just think of the oil.
• The ones who receive the full tx including massage had the best results. Why? Conditioned pharmacological effect?
• In researching further, they were able to find an anticonvulsant effect of Jasmine EO. But, this didn’t explain the full results seen.

Ylang ylang energetics

• Energetics: Cool and Moist
• Element: Fire (water)
• Very calming and supportive of the heart.
• Promotes sleep through its cooling effects on the body and emotions
• Relieves heat in the blood
• With heat in the blood often see some sort of bleeding, excess menstrual bleeding, bloody nose.
• HBP, tachycardia, heart palpitations
• Can also have nervousness, agitation, insomnia.

Ylang Ylang energetics

• Disturbed Shen
• More emotions, fewer physical symptoms in this pattern
• Hallucinations, weeping uncontrollably
• Irrational fears or jealousy
• Anxiety, insomnia
• Birmingham University Seizure Clinic
• There are several scenarios that could lead to disturbing the Shen (spirit)
• Heat Fire, Heat in the Blood, Liver Qi stagnation.
• Because of this, may see Disturbed Shen picture along with another set of symptoms
• In blending, you will chose companion oils for ylang ylang based on other patterns present
Ylang ylang energetics

- Chakra: Heart
- Peace, euphoria, sensuality
- Helps Shen connect with the physical senses so it doesn’t uproot. Ground into yin.
- Harmonize Heart and Sacral chakras
- A sexual tonic
- Aphrodisiac
- Raises Kidney essence
- Use for impotence and frigidity
- Clam fears around sensuality and sexuality, think / feel voluptuous
- Heartache

Ylang ylang applications

- Depression Relief
- Cypress, Frankincense, Vetiver, (Ylang Ylang)
- Cypress (1) – metal and water
- Frankincense (1) – metal and earth
- Vetiver (2) - earth
- Ylang Ylang (2) – fire and water
- Secondary use – expectorant, sooth the lungs

- Harmonize Heart and Sacral chakra
- Geranium, Clary Sage, Lemon, (Ylang Ylang)
- Geranium (1) – earth and water
- Clary Sage (2) – metal and wood
- Lemon (1) – earth and fire
- Ylang Ylang (2) – fire and water
- Secondary use – anti-fungal

Ylang ylang personality profile

- Aroma
- Visceral
- Movement / Shape
- Emotional
- Physical
- Taste
- Association

Rose

- Analgesic
- Antidepressant
- Antibacterial
- Anti-inflammatory
- Tonic, general/sexual/nerve
- Cicatrisant
- Astringent
- Choleretic

Rosa Damascena

Physiological

- Analgesic
- Antidepressant
- Antibacterial
- Anti-inflammatory
- Tonic, general/sexual/nerve
- Cicatrisant
- Astringent
- Choleretic
Three Rose Species
Rosa centifolia – cabbage rose
Rosa damascena – damask rose
Rosa gallica – French rose

Wikipedia commons

Rose phytochemistry
• Extremely complex – over 300 compounds, many unidentified.
• 86% identified. Unidentified 14% contains over 300 compounds.
• Monoterpenols – 55%
• Monoterpenes
• Aldehydes, rose ketones
• Esters of monoterpenols
• Methyl eugenol, eugeno
• Absolute – sequiterpene(ols)

Rose harvesting/production
• 1. https://www.youtube.com/watch?v=JPydfRMCe0E
• 2. https://www.youtube.com/watch?v=rOTLHPttIw
• 3. https://www.youtube.com/watch?v=V191qp2TedIQ#t=15
• Image: Enio Bonchev

Rose research

<table>
<thead>
<tr>
<th>Type of Solution</th>
<th>Effect</th>
<th>Method of Study</th>
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<tbody>
<tr>
<td>Essential oil</td>
<td>Anticonvulsant</td>
<td>Partialled studies</td>
</tr>
<tr>
<td>Extract (hydroal)</td>
<td>Analgesic</td>
<td>Animal studies</td>
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<tr>
<td>Extract (eth)</td>
<td>Antihistamine</td>
<td>Citric acid method</td>
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<tr>
<td>Essential oil</td>
<td>Bronchodilatory</td>
<td>Tracheal chains</td>
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<tr>
<td>Extract (aq)</td>
<td>Potentiation of HR, contractility</td>
<td>Isolated Heart</td>
</tr>
<tr>
<td>Extract (aqua/eth)</td>
<td>Antitussive</td>
<td>Rat paw edema</td>
</tr>
<tr>
<td>Essential oil/absolute</td>
<td>Antioxidant</td>
<td>Frequency of defecation</td>
</tr>
<tr>
<td>Isolated compounds</td>
<td>Anti-inflammatory</td>
<td>Isolated Heart</td>
</tr>
<tr>
<td>Extract (ex)</td>
<td>Bronchodilatory</td>
<td>Effect of C8166 and H9 infected cells</td>
</tr>
<tr>
<td>Essential oil</td>
<td>Laxative, prokinetic</td>
<td>Measurement of Alpha glucosidase</td>
</tr>
<tr>
<td>Extract (methanol)</td>
<td>Anti-diabetic</td>
<td>Frequency of defecation</td>
</tr>
<tr>
<td>Extract (hydro)</td>
<td>Anti-infective</td>
<td>Rat paw edema</td>
</tr>
</tbody>
</table>

• Rose has classically been used for imbalances of the reproductive organs, whether infertility, menopausal, disharmony of menstrual cycle.
• A research study has shown rose essential oil also has an affinity for the male reproductive system.
• Rose has been shown to be a strong antioxidant. Also been shown to protect testicular tissue from induced damage.
• Rose oil has also been shown to increase motility of sperm and sperm count, seminiferous tubule diameters.
• Decreased abnormal sperm count.
• Histopathological improvements in testes and total testosterone levels.
• Inhalations of rose oil 1 hour a day for 35 days with rats.

• A study with rats in 2012 showed inhalation of rose essential oil inhibits several measurable effects of chronic stress
• Prevents chronic stress-induced disruption of skin barrier.
• Significantly increases the increases of plasma corticosterone (cortisol in humans).
• Decreased trans-epidermal water loss caused by stress.

• Researchers felt this was due to rose essential oil’s ability to prevent the stress induced activation of the hypothalmo–pituitary–adrenocortical axis (HPA axis).

Rose Research

• Extract (hydroal) Antagonist - Anxiolytic effect
• Extract (hydroal) Antidepressant
• Extract (ex) Anti-inflammatory
• Extract (ex) Bronchodilatory
• Extract (ex) Anti-diabetic
• Extract (eth) Antioxidant
• Extract (eth) Bronchodilatory
• Extract (hydro) Anti-histamine
• Extract (hydro) Analgesic
• Extract (ex) Anti-inflammatory
• Extract (ex) Anticonvulsant
Rose energetics

- Energetics: Cool and moist
- Elements: Fire
- Yin Tonic
- Clearing heat and inflammation
- Toxins, infections
- Depression, anxiousness
- Primary organs: liver, heart, uterus, skin

Rose energetics

- Cools and soothes the liver
- Relieves pain generated by this: migraines, constipation, nausea, dysmenorrhea
- Uterine tonic, tonifying, astringent, hemostatic. Use for excessive menstrual bleeding, pain
- Also beneficial in menopausal patterns, or similar disharmony in menstruating women.
- Chinese action: Harmonize HT/KI

Rose energetics

- Opens the Heart Chakra
- Rose supports the heart in many ways.
- It is soft and gentle, yet very potent in all its actions.
- Opens the heart, relieves grief and sadness, and pain
- Clears heat and deficiencies that cause anxiety, palpitations, despair.
- Rose is an emotional level wound healer
- Nurturing, restoring capacity for healing, love, and hope

Rose energetics

- Invaluable for skin applications.
- All types of skin infections: fungal, bacterial, viral (shingles).
- Generally used for either baby skin care or mature skin, or to prevent aging in skin.
- Not my top choice just for acne preparations, not necessary.
- Skin rashes, inflamed, undernourished, underhydrated
- Skin care for cold months

Rose applications formulas

- Adopted baby bonding
- Dual formula for grief and dysmenorrhea/excessive bleeding
- Migraine
- Shingles
- Skin care (neroli formulas)
- How/to use for acute pain
- Antifungal
- Anti-infectious spray

Rose Applications formulas

- Migraine rub – 10% – 50% peppermint essential oil in isopropyl alcohol (rubbing alcohol).
  Apply with cotton ball to chest, shoulders, and neck at onset of migraine.
- Also, apply 1-2 drops neat rose oil over centers of most intense pain on face, neck, head.
- In particular, over maxillary and frontal sinuses, GB 20, SI 3, HT 8
- Also heat on feet is essential. Oils on LV3

- Migraine blend:
  - 5ml neat blend
  - 3ml (75 drops) peppermint
  - 1ml (25 drops) rose

- For the remaining 1ml (25drops):
  - Eucalyptus
  - Frankincense
  - Clary sage
  - Geranium
Rose applications formulas

Dual formula for grief or dysmenorrhea / excessive bleeding

- Geranium, Clary Sage, Cypress, (Rose)
- Geranium (2) – water and earth
- Clary Sage (2) – metal and wood
- Cypress (1) – metal and water
- Rose (1) – fire

- Geranium (2) – metal and earth
- Clary Sage (2) – metal and wood
- Cypress (1) – metal and water
- Rose (1) – fire

Harmonize Heart and Crown Chakra

- Depression, loss of passion, loss of joy, loss of sense of personal truth
- Frankincense (2) – metal and earth
- Neroli (1) – fire and wood
- Rose (1) – fire
- Ylang ylang (1) – fire and water

Rose personality profile

Aroma
Visceral
Movement / Shape
Emotional
Physical
Taste
Association

Sandalwood

Physiological
- Antiviral / antifungal
- Antidepressant
- Anti-inflammatory
- Lymphatic decongestant
- Sexual tonic
- Expectorant (cooling)
- Calmative
- Cardiotonic
- Hemostatic / astringent

Santalum album

Sandalwood Species

- Santalum album – Indian Sandalwood
- Santalum rubrum or Pterocarpus santalinus – Red Sandalwood
- Santalum spicatum – Australian Sandalwood
- Santalum peniculatum – Hawaiian Sandalwood
- Santalum ellipticum, S. freycinetianum var. lanaiense – also Hawaiian Sandalwood

Photo: www.ctahr.hawaii.edu
Sandalwood Species

- *Santalum album*
- More than 100 constituents reported
- Predominately sesquiterpene alcohols: alpha and beta santalol, up to 90%
- Up to 30 variations of these alcohols.
- Sesquiterpene esters – between 3-5%
- Sesquiterpenes – 2-5%
- Sesquiterpene aldehydes – 1-2%
- Sesquiterpene acids – 1%

Sandalwood Harvesting/production

- [https://www.youtube.com/watch?v=2oa4Wh5kccQ](https://www.youtube.com/watch?v=2oa4Wh5kccQ) Australian sustainable Sandalwood
- [https://www.youtube.com/watch?v=YSpYYAwVGCc](https://www.youtube.com/watch?v=YSpYYAwVGCc) Hawaiian Sandalwood
- Endangered species Red Sandalwood smuggling in India [https://www.youtube.com/watch?v=828Iw2_NUO0](https://www.youtube.com/watch?v=828Iw2_NUO0)

Sandalwood research

- 2011, alpha santalol showed chemopreventative, actions for against initiated skin cancer development in mice and cell lines.
- Alpha-santalol induces cancer cell apoptosis, and inhibits cell growth by interfering with several cell cycle regulatory proteins

Sandalwood phytochemistry

- *Santalum album*
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- Sesquiterpene acids – 1%

Sandalwood research

- Aromatic lignans isolated from methanol extract of sandalwood heartwood.
- Di-terpene alcohols. C20
- Two of these compounds showed impressive cytotoxic actions against HL-60 (human promyelocytic leukemia cells) and A549 (human lung adenocarcinoma epithelial cell line).
- Apoptosis cytotoxic action

Sandalwood research

- Control diabetic group increase blood glucose by 125mg/dl.
- Sandalwood increased HDL by 46%, decreased TC by 22%, LDL by 31%, triglycerides by 44%
- Metformin: HDL up 7%, TC down 11%, LDL 29%, and TG 15%
- Researchers felt sandalwood extract had anti-hyperlipidemic actions that could help overcome insulin resistance.
Sandalwood research

• Interesting study done to evaluate the anxiolytic effects of sandalwood in mice.
• Mice were ‘stress-loaded’ then given a sandalwood inhalation 90 min before being evaluated.
• Mice showed significant anxiolytic effects from the sandalwood inhalation.

Sandalwood research

• Then the researchers want to see if the sandalwood would relieve the stress caused by the 24 water-immersion stress they used to ‘stress-load’ the mice.
• Mice were given sandalwood inhalations before water immersion.
• The anxiolytic was demonstrated even after 24 hours.
• However, no anxiolytic effects were seen from inhalations in non-stressed mice.

Synthetic biosynthesis

• Because sandalwood is so expensive due to poor resource management, and is also proving to be so potentially useful with conditions such as cancer, the scientific community has come up with ways to biosynthesize the sandalwood constituents they have deemed to be significant.

• Sandalwood cytochrome P450 genes are mapped and cloned.
• These are tested to see which ones would produce the desired compounds.
• These genes are then ‘metabolically engineered’ with these cloned genes so their cellular metabolism would produce the desired sandalwood compounds for harvest.

Sandalwood energetics

• Energetics: Cool and moist
• Elements: Earth and Water
• Clearing and cooling to damp, hot conditions in the body
• Especially the lungs/throat and the lower jiao
• Hot UTI, diarrhea that leaves burning sensation
• Chest congestion that causes painful cough

Sandalwood energetics

• Base chakra
• Peaceful contemplation, zen, non-being, non-action
• Spiritual crossing - transforming
• Calms the intellect’s unending drive and churning (soothe earth)
• Grounds uprooted kidneys (water), a hot agitated mind that is panicking or leads to panic
• Calms the Shen (spirit)

Sandalwood applications

• Eczema / psoriasis spray or wash
• 4 oz of apple cider vinegar
• 2 oz of rose hydrosol
• 2 oz of neroli hydrosol
• 25 drops sandalwood EO
• Shake well before each use.
• Store in refrigerator
• Spray or wash affected areas 2 x daily for up to 10 days.

• This can also be used for various other rashes.
• Scalp irritations
• Burns, sunburn
• Safe for children

Sandalwood Applications

• Chemopreventative Blend
• Frankincense (1) – metal and earth
• Myrrh (2) – metal and earth
• Lemon (3) – earth and fire
• Sandalwood (1) – earth and water
• Vetiver (1) - earth

• Interesting that all of these oils that show promise as chemopreventative agents are also supportive of the earth element.
• When there is a growth out of control, supporting the earth element function of transportation and transformation makes sense.
• Transporting out something not beneficial for the body.
• Transforming something into a beneficial energy for the body.
Jasmine

**Jasminum grandiflorum**

**Physiological**
- Antidepressant
- Sexual tonic
- Uterine tonic / parturient
- Eases mental trauma
- Anxiolytic
- Antispasmodic
- Yang qualities, can be sedative or gentle stimulant

**Jasminum phytochemistry**
- Beuzyl acetate (ester) 22%
- Benzyl benzoate +phytrol (ester) 24%
- Phytol acetate (ester) 10%
- Jasmone lactone +isophytol 10%
- Linalool (alcohol) 6%
- Methyl jasmonate 3%
- Indole 2%
- Jasmone 2%
- Methyl anthranilate 2%
- Eugenol 1.5%
- Farnesene 1.5%

**Jasmine phytochemistry**
- Acyclic diterpene alcohol
- Intermediate in production of chlorophyll and carotenoids.
- Anti-tumor, anti-inflammatory, anti-oxidant, anti-nociceptive
Jasmine phytochemistry

Indole

- Intermediate in tryptophan production via anthranilate.
- Synthesized indole is a key component in synthetic jasmine.
- It is being studied for its anti-cancer properties, anti-tumor, and antioxidant properties.

Jasmine harvesting/ production

- https://www.youtube.com/watch?v=Du-7GQyqLXs organic jasmine fields in southern India
- https://www.youtube.com/watch?v=0c2wPA7A9JA jasmine absolute production in India

Jasmine research

- Pilot study in India looked into the effects of jasmine EO on anxiety disorder.
- 30 patients were asked to inhale jasmine essential oil for 5 min. daily for 10 days.
- Patients were assessed based on the Hamilton's Anxiety Rating Scale before and after intervention.
- Huge statistical difference P.000
- The average pretest score was 25.00 and post test it was reduced to 9.97.

Jasmine Research

- Another study found similar anxiolytic results with rats using daily inhalations of such essential oils as jasmine and sandalwood.
- Other in vitro studies have shown good antibacterial and antifungal activity against several strains.
- Some components of jasmine essential oil are being studied for anti-Hep. B activity.
- Particularly in blocking replication.

Jasmine energetics

- Energetics: Neutral / balanced
- Elements: Fire and Water
- This oil can be used for both hot and cold, excess or deficiency conditions.
- I have found it to be mildly stimulating, awakening the senses, sensuality, releasing tension, uplifting the mood.
- Jasmine helps alleviate fear.
- Strong effects on emotions.

Jasmine energetics

- Jasmine is primarily effective for working with the urogenital organs.
- A potent aphrodisiac, it is an excellent sexual tonic.
- Here you see a warming, tonifying effect. Counteracting frigidity or impotence or infertility.
- Helps with genital discharges, leucorrhea.
- Jasmine's aphrodisiac action works on both a physical and emotional level.
Jasmine energetics

- Jasmine is a known parturient, being one of the most used essential oils during birth.
- It is recommended to use jasmine over the abdomen and low back to help relieve pain and increase contraction strength.
- However, jasmine’s best benefit may be via psychological support during labor. Easing fear and trauma, helping infuse sweetness and joy back into the birth.
- Jasmine has been reported to both increase and decrease milk supply.

Jasmine Applications

Jasmine Applications Formulas

- This pattern can be caused by many circumstances beyond opiate abuse.
- When there is a chronic pain/imbalance pattern in place, the cycle the person/body goes through to deal with this can generate a similar cycle and is fueled by the person’s own energy.
- Hormonal, emotional trauma, injury, mood disorders.
- This cycle perpetuates the pain, driving stagnation deeper.

Jasmine Applications Formulas

- Nourish Kidney Yin
  - Lemon (2)
  - Geranium (2)
  - Jasmine (1)
  - Vetiver (1)

- Nourish Kidney Yang
  - Rosemary (3)
  - Jasmine (2)
  - Cedarwood (2)
  - Thyme (1) or (1.5)

- Could also use Clary Sage in this blend

Basil EO also nourishes Kidney Yang

Jasmine Applications Formulas

- Nourish kidney yin and yang
  - Rosemary (2) – fire
  - Geranium (2) – earth and water
  - Jasmine (1) – fire and water
  - Vetiver (1) – earth

Jasmine Applications Formulas

- Sexual Tonic / Grounding
  - Clary Sage, Frankincense, Vetiver, Jasmine

- Frankincense (1) – metal and earth
- Jasmine (2) – fire and water
- Clary Sage (2) – metal and wood
- Vetiver – (1) – earth

- Could use Sandalwood instead of Vetiver here

Jasmine Applications

Jasmine applications formulas

- Labor Blend
  - 5ml neat
  - 25 drops neroli
  - 20 drops rose
  - 20 drops clary sage
  - 20 drops geranium or lavender
  - 15 drops myrrh or sandalwood or patchouli
  - 10 drops jasmine
  - 10 drops ylang ylang or lemon

- 2 oz blend 5% dilution
  - 15 drops neroli
  - 12 drops rose
  - 12 drops clary sage
  - 12 drops geranium or lavender
  - 10 drops myrrh, or sandalwood, or patchouli
  - 5 drops jasmine
  - 5 drops ylang ylang sub lemon
  - Fill rest of bottle with base oil

Jasmine personality profile
Jasmine personality profile

To Consider when Blending

- Aesthetic and therapeutic value
- Psychological and spiritual approach
- Five Elements approach/aspect to balancing the blend
- Physiological approach to choosing and blending
- Intuitive wisdom

To consider when blending - Safety

- Oral doses
- Duration
- Skin Patch Testing
- Inhalation

Blending/formulation

- Top note – 20 to 30%
- Middle note – 40 to 80%
- Base note – 10 to 25%
- Choose an essential oil that is representative of the client
- Also choose an oil that balances the client or gives what is lacking