

Essential Oils: A Strategy to Reduce Stress

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"To reach the individual, we need an individual remedy. Each of us is a unique message. It is only the unique remedy that will suffice. We must, therefore, seek odiferous substances which present affinities with the human being we intend to treat, those which will compensate for his deficiencies, and those which will make his faculties blossom."

Marguerite Maury

Objectives

- ▶ List 1 essential oils for depression
- ▶ List 1 essential oil for stress
- ▶ List 1 acupressure point for stress

What is Mental Health?

Mental Health Includes:

- ▶ Emotional well-being
- ▶ Psychological well-being
- ▶ Social well-being

Mental Health Affects:

- ▶ How we feel
- ▶ How we act
- ▶ How we respond to stress
- ▶ How we make choices
- ▶ How we relate to others

The Eight Dimensions of Wellness



Areas of Focus for Mental Wellness Plan

▶ Stress reduction

-Consideration for:

- * anxiety, mood impulse, psychotic, tic disorders
- * stress response syndromes

* Circadian rhythm support

-Consideration for:

- * Insomnia, daytime lethargy, neuro-endocrine disruptions and imbalances

• Specific mood support

-Consideration for:

- * Mood disorders

Merriam-Webster Definitions

Stress

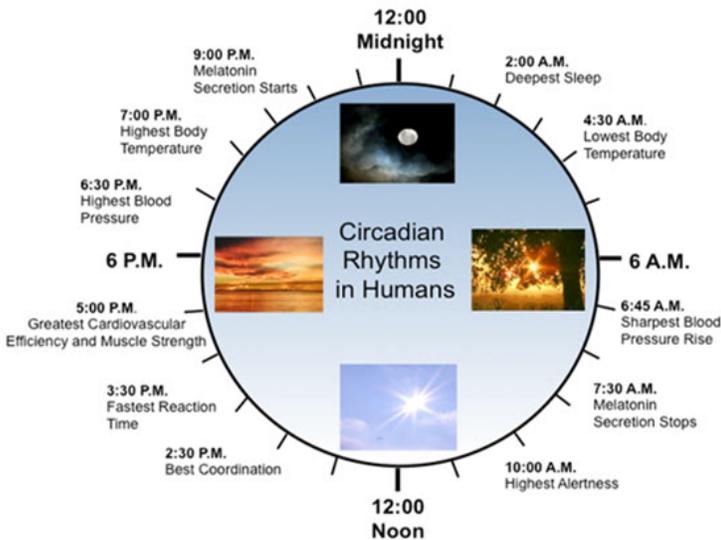
- ▶ A state of mental tension & worry caused by problems in your life, work, etc.
- ▶ Something that causes strong feelings of worry or anxiety
- ▶ Physical force or pressure

Anxiety

- ▶ Fear or nervousness about what might happen, often marked by physiological signs - sweating, increased pulse
- ▶ A feeling of wanting to do something very much

Circadian Rhythm

The Circadian Rhythm is a 24 hour clock that governs some 100+ biological processes peak and dip each day.

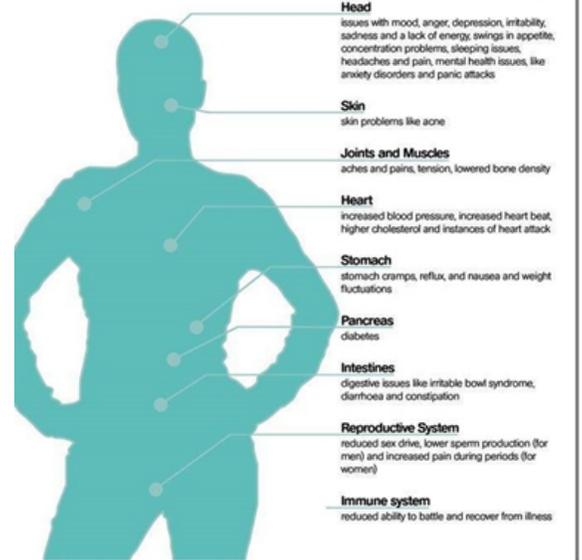


Integrative Modalities to use in the Clinic Setting and at Home



Chronic Stress

What Stress Does to Your Body



Circadian Rhythm

Function

- ▶ Peak mental alertness and memory
- ▶ Lowest body temperature
- ▶ Highest body temperature
- ▶ Peak physical strength
- ▶ Peak hearing, visual, taste & smell sensitivity
- ▶ Lowest sensitivity to pain
- ▶ Peak sensitivity to pain
- ▶ Peak degree of sleepiness
- ▶ Peak melatonin hormone in blood
- ▶ Peak allergic sensitivity to pollen and dust

Typical Circadian Rhythm

- ▶ 2 daily peaks: -9am and 9pm
- ▶ - 97 F around 4am
- ▶ -99 F around 4pm
- ▶ 2 daily peaks: -11am and 7pm
- ▶ 2 daily peaks: -3am and 6pm
- ▶ -4pm
- ▶ -4am
- ▶ 2 daily peaks: -3am and 3pm
- ▶ Between 1am and 3am
- ▶ Between 11pm and 1am

Exercise

- ▶ Regular physical activity “burns off” the stress hormones and helps the body to relax
- ▶ Outdoor activities use nature to “burn off” the stress hormones
- ▶ Exercise produces “feel good” hormones



SQUARE BREATHING

- ▶ Breathe in for 4 seconds,
- ▶ Hold it in for 4 seconds.
- ▶ Breathe out for 4 seconds,
- ▶ Repeat this 4 times.

Picture breathing around a 4 square frame, going up 1 side, holding across the top, breathing out going down the other side and holding again across the bottom.

Creating a routine

- ▶ Choose a special place where you can sit (or lie down) comfortably and quietly.
- ▶ Don't try too hard. That may just cause you to tense up.
- ▶ Have a focal.
- ▶ Try to practice once or twice a day, always at the same time, in order to enhance the sense of ritual and establish a habit.
- ▶ Try to practice at least 5 minutes each day and gradually increase your time to 10-20 minutes each day.

Per <http://www.health.harvard.edu/mind-and-mood/relaxation-techniques-breath-control-helps-quell-errant-stress-response>

What is Aromatherapy?

Aromatherapy is the use of essential oils to produce therapeutic outcomes.

Essential oils are the distillates extracted from various aromatic plants.



Aromatherapy is rooted in herbal medicine.



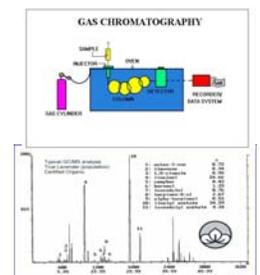
What should I know before I use an essential oil?

- ▶ What's in the bottle?
 - ▶ common name
 - ▶ botanical name
- ▶ What's really in the bottle?
 - ▶ Family
 - ▶ Genus
 - ▶ Species
 - ▶ Variety/part
- ▶ How is it extracted?
 - ▶ steam distilled
 - ▶ expressed



Determining Quality of Essential Oils

- ▶ Verification of the plants botanical species
- ▶ Crops were not subjected to agrochemicals
- ▶ Low pressure distillation techniques employed
- ▶ Visually inspecting the oil
- ▶ Odor evaluation of the oil
- ▶ Testing the oils purity using GC or GC/MS technology



Essential Oil Safety

- ▶ DO NOT take EO internally
- ▶ Use proper dilutions esp. for the very young and the very old.
- ▶ NEVER use EO undiluted.
- ▶ KEEP OUT OF EYES: if enters eye rinse with carrier oil then water for 30 minutes
- ▶ Check allergies
- ▶ DO a patch test for skin sensitivity or irritation
- ▶ Check medical history
- ▶ KEEP OUT OF REACH of CHILDREN
- ▶ Ensure EO is from reputable supplier and all bottles are labeled correctly.
- ▶ Do not store in plastic, use dark colored glass bottles and keep in cool dark place
- ▶ Citrus oils are **photosensitive** so stay out of sun or tanning beds



Skin Reactions

- ▶ Irritation
- ▶ Sensitization
- ▶ Cross-sensitization
- ▶ Phototoxicity



Doses, Conversions & Equivalents

- ▶ There are:
 - ▶- Approximately 20 drops in 1ml of essential oil
 - ▶- Approximately 100 drops in 5ml of essential oil
- ▶Therefore, use 5ml (1 tsp) as 100%. So, 1 drop of essential oil in 5ml carrier oil is 1%

Doses, Conversions, & Equivalents

- ▶ 1 drop EO in 20ml (4 tsp) of carrier oil = 0.25%
- ▶ 1 drop of EO in 10ml (2 tsp) carrier oil = 0.5%
- ▶ 1 drop of EO in 5ml (1 tsp) carrier oil = 1%
- ▶ 5 drops of EO in 5ml carrier oil = 5%
- ▶ 10 drops of EO 5ml carrier oil = 10%



Dilution Guideline

- ▶ 0.5 % = 4 drops per ounce (sensitive skin, emotional and spiritual purposes)
- ▶ 1% = 9 drops per ounce (recommended for children, expectant mothers, skin care)
- ▶ 2% = 18 drops per ounce (massage, body lotion)
- ▶ 3% = 27 drops per ounce (massage, body lotion)
- ▶ 10% = 3 ml (sixty drops) (pain, infection, usually on small body area)

General dilution rate guidelines

- ▶ CHILDREN
 - ▶ Newborn-2 years
 - 0.25%-0.5% 1 drop in 20ml (4 tsp) to 1 drop in 10ml (2 tsp) in a carrier oil
 - 2-5 years - 0.5% - 1% 1 drop in 10ml (2 tsp) to 1 drop in 5mls (1 tsp) carrier oil.
 - ▶ 5-12 years - 1 - 5%
 - ▶ 12 - Adult - 1 - 5%

Amount of essential oil absorbed depends on:

- ▶ Dilution
- ▶ Amount
- ▶ Amount of skin surface covered
- ▶ Skin temperature
- ▶ Age
- ▶ Carrier oil

What are Carrier Oils?

- ▶ Should be of vegetable origin
- ▶ Obtained from seeds or nuts
- ▶ Cold-pressed
- ▶ Non-hydrogenated
- ▶ Fixed because they can't be steam distilled
- ▶ Used as a base oil for topical applications
- ▶ Properties have much to do with the desired therapeutic effect.

Which Carrier Oil to Use?

- ▶ Choose one that meets the need of the treatment
- ▶ Mineral/Baby oil or Vaseline are NOT used in aromatherapy because these products are not natural and can prevent essential oil absorption into the skin

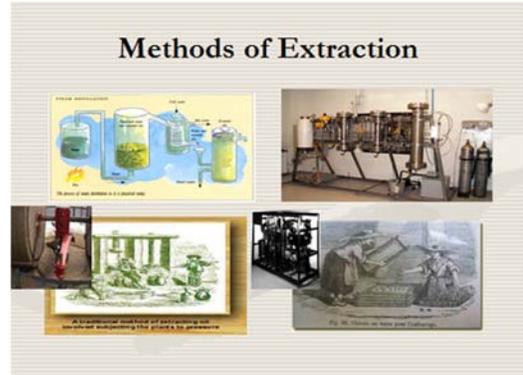


Carrier Oils

- ▶ Aloe Vera Gel
- ▶ Grapeseed
- ▶ Sweet Almond
- ▶ Jojoba
- ▶ Arnica
- ▶ Tamanu
- ▶ Castile soap



Essential Oils in Plants



Chemistry of Essential Oils

It is the chemistry of the essential oil which determines its therapeutic properties.

Complex mixtures of chemical functional groups make up the chemical profile.

Where the plant is grown determines the chemical makeup of the essential oil.

Chemical Groups in Essential Oils

Eight predominant chemical groups are involved in the composition of essential oils and each group contributes a particular therapeutic quality. Chemical analysis using the method of Gas-Liquid Chromatography (GLC) means the purity of the oil can be assessed, and the presence of any foreign ingredients can be tested - for example, artificial fertilizers or pesticides - in oils claimed to have been organically grown.

To fully understand why it is so important to have as pure essential oils as possible, it is necessary to understand the chemical make-up of each essential oil, and the therapeutic effect of each chemical group.

The eight main chemical groups found in essential oils are Aldehydes, Esters, Ketones, Phenyl Methyl Ethers, Oxides, Phenols, Alcohols and Mono Terpenes.

CHEMICAL NAME	THERAPEUTIC QUALITIES	EXAMPLES
Aldehydes	anti-infectious, analgesic, anti-inflammatory; they also help regulate the central nervous system	geraniol, found in e.g. Rose Geranium (<i>Spodopogon graveolens</i>)
Esters	calming, sedative, and they help regulate the central nervous system they are also anti-spasmodic, and mucolytic (breaks down mucus)	linalyl, found in e.g. Lavender (<i>Sarandak angustifolia</i>) 40%
Ketones	anti-infectious, skin healing, mucolytic, spasmolytic (breaks down spasms), relaxes respiratory tract infections	verbeneone, found in e.g. Rosemary (<i>Ursmarianthus officinalis</i>)
Phenyl Methyl Ethers	anti-infectious, anti-spasmodic, oestrogen-like and therefore can help regulate hormonal system as well as help regulate central nervous system	chavicol, found in e.g. Basil (<i>ocimum basilicum</i>)
Oxides	expectorant, some are anti-infectious	chavicol, found in e.g. Eucalyptus (<i>globulus</i>) 30%
Alcohols	anti-pathogenic, immuno-stimulant	linalol, found in e.g. Lavender (<i>Sarandak angustifolia</i>)
Phenols	strongly anti-pathogenic, stimulating, (NB, some are antiseptics)	thymol, found in e.g. Thymes CT thymol 30%
Mono Terpenes	antispasmodic, fortifying and strengthening anti-viral, carbamide-like	limonene, found in e.g. lemon (<i>Citrus limon</i>) 70%

This list of natural chemical ingredients and their therapeutic effects illustrates just how important all the natural ingredients are in essential oils. The loss of any of these ingredients, through lack of purity results in essential oils with little or no therapeutic effect, in other words as we said in the beginning, they simply do not work.

Aldehyde Properties

- ▶ Anti-inflammatory
- ▶ Sedative
- ▶ Antiviral
- ▶ Analgesic



Ester Properties

- ▶ Calming
- ▶ Sedative
- ▶ Antispasmodic
- ▶ Possibly antifungal



Phenol Properties

- ▶ Antibacterial
- ▶ Stimulant
- ▶ Immunostimulant
- ▶ Possible skin irritant



Effects of Essential Oils on the Body

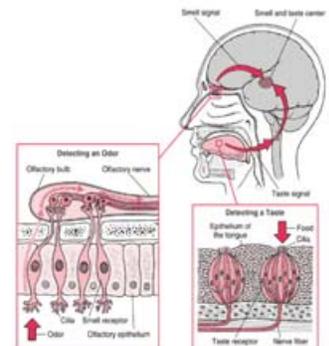
- ▶ **PSYCHOLOGICAL** - the reaction and response that takes place when the essential oil is breathed in.
- ▶ **PHYSIOLOGICAL** - the changes which occur within the body's systems as a result of the essential oil.
- ▶ **PHARMACOLOGICAL** - chemical changes which take place when the essential oil is carried in the blood and inter-reacts with the body's chemistry-neurotransmitters, hormones, enzymes.

How are essential oils used?

- Olfaction
 - direct inhalation
 - indirect inhalation
- Transcutaneous
 - topically with "M" technique
 - compresses
 - baths
- Ingestion
 - done by a licensed professional who can prescribe

Where Does Smell Go?

- ▶ Breathe in through the nose
- ▶ Top of nose is the olfactory system
- ▶ Chemicals move up into the olfactory bulb
- ▶ Stimulates olfactory center in the brain

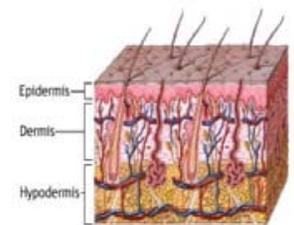


The Sense of Smell

- ▶ Smell is instantaneous
- ▶ Smell is a chemical reaction
- ▶ Smell is important
- ▶ Smell affects us without us even knowing it
- ▶ Smell affects how we communicate
- ▶ Smell linked to our memories

Topical Application

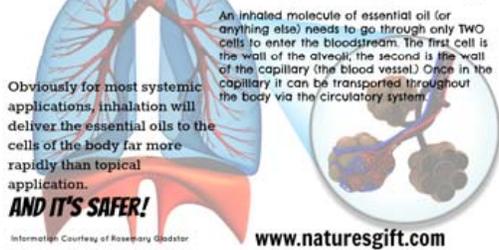
- ▶ Penetration into the skin
- ▶ Permeation trans-dermal to capillaries
- ▶ Blood & lymphatic circulation



#ADAM

Application or Inhalation-Which is fastest?

The skin covers 22 square feet, the respiratory system over 700 square feet. In order to reach the bloodstream via the skin a molecule of essential oil needs to penetrate 40 to 50 cells. The average person's lungs contain 6,000,000 alveoli, which are attached to microscopically fine blood vessels. They are where inhaled gasses are transformed to their dissolved form to be taken into the blood and transported throughout the body.



Ways to Use Essential Oils in Mental Wellness

Direct Inhalation

- ▶ Personal inhaler
- ▶ Aroma tab/patch
- ▶ Tissue
- ▶ Cotton ball in zip lock baggie
- ▶ Pillow case
- ▶ Bath
- ▶ Foot soaks

Indirect Inhalation

- ▶ Spritzer
- ▶ Diffusers

Inhalation

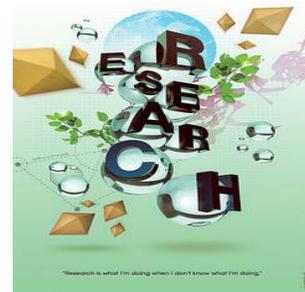
Direct



Indirect



Aromatherapy Research



Aromatherapy Research

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Stress & Anxiety Reduction with Aromatherapy

Build use of essential oils into routines:

- Meditation
- Group therapy
- Individual therapy
- Bedtime



Essential Oils for Mental Wellness

- ▶ Promote relaxation
 - * Lavender
 - * Lavandin
 - * Sweet Marjoram
- ▶ Sink energy downwards, away from 'busy' brain
 - * Spikenard
 - * Vetiver
 - * Sweet Marjoram
- ▶ Soothe nerves
 - * Geranium
 - * Jasmine
 - * Mandarin
 - * Neroli
- ▶ Restore energy
 - * Black spruce
 - * Cypress

Essential Oils for Mental Wellness

- | | |
|---------------------|---------------|
| ▶ <u>Depression</u> | ▶ <u>PTSD</u> |
| Lavender | Lavender |
| Geranium | Bergamot |
| Sweet orange | |

Circadian Daytime Support

- ▶ Bergamot
- ▶ Black spruce
- ▶ Blue tansy
- ▶ Peppermint
- ▶ Scot's pine
- ▶ Rosemary-caution-avoid with seizures and hypertension



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Circadian Bedtime Support

- ▶ Cedarwood-Himalayan
- ▶ Roman chamomile
- ▶ Lavender
- ▶ Patchouli
- ▶ Sweet marjoram
- ▶ Spikenard
- ▶ Vetiver



Essential Oils & Massage

- ▶ Raised energy levels
- ▶ Reduced muscle tension
- ▶ Improved circulation
- ▶ Stimulation of the immune system
- ▶ Promotes relaxation
- ▶ Reduction of stress and anxiety
- ▶ More restful sleep
- ▶ Promotion of a sense of well being



Into the tub

- ▶ Baths-since most EO are not water soluble place them in an emulsifier (milk) before adding to the bath. 5-8gtts and disperse into bathwater. Soak 20-30minutes
- ▶ Bath Gel - add 10 drops of essential oil to 2 ounces of neutral bath gel or castile soap
- ▶ Scrub recipe - This is a very popular spa treatment. The objective of this treatment is to eliminate dead cells and make your skin soft and radiant.
1 cup of sugar/sea salt
1/2 cup of almond or grape-seed oil
15 drops of grapefruit essential oil. You may use any other essential oil.



Lavender (*Lavandula angustifolia*)

- ▶ Antimicrobial
- ▶ Sedative
- ▶ Analgesic
- ▶ Anti-inflammatory
- ▶ Antiviral
- ▶ Antispasmodic



Lavandin(*Lavandula x intermedia: super*)

- ▶ Relaxant
- ▶ Antispasmodic



Roman Chamomile(*Chamaemelum nobile*)

- ▶ Anti-inflammatory
- ▶ Analgesic
- ▶ Sedative
- ▶ Calming
- ▶ Anti-infectious



Frankincense(*Boswellia cateri*)

- ▶ Anti-inflammatory
- ▶ Analgesic
- ▶ Sedative
- ▶ Antibacterial



Mandarin red (*Citrus reticulata*)

- ▶ Antiemetic
- ▶ Digestive
- ▶ Sedative/Relaxant
- ▶ Analgesic
- ▶ Astringent
- ▶ Diuretic



Sweet Marjoram (*Origanum majorana*)

- ▶ Tranquilizing
- ▶ Antidepressant
- ▶ Analgesic
- ▶ Antispasmodic
- ▶ Antibacterial
- ▶ Antifungal



Spikenard (*Nardostachys jatamansi*)

- ▶ Sedative
- ▶ Anti-inflammatory
- ▶ Bactericidal
- ▶ Fungicidal



Geranium (*Pelargonium graveolens*)

- ▶ Antidepressant
- ▶ Adrenal cortex regulator
- ▶ Antispasmodic
- ▶ Anti-inflammatory
- ▶ Antibacterial
- ▶ Diuretic



Sweet Orange (*Citrus sinensis*)

- ▶ Uplifting
- ▶ Sedative
- ▶ Immune stimulant



Vetiver (*Vetivera zizanioides*)

- ▶ Sedative
- ▶ Calming
- ▶ Antiseptic
- ▶ Mild rubefacient



Relaxation Blends

Stress/Anxiety

1-2 ml of fractionated coconut oil
Several drops of:
Lavender/Red mandarin
Sweet orange
Geranium/Ylang ylang



Insomnia

Lavender/Red mandarin
Vetiver
Spikenard
Lavandin

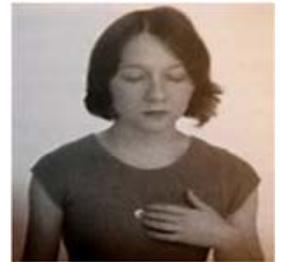
May use independently or blend.
Apply a few drops on pillow case
or on a cotton ball next to the
head of the bed.

Acupressure



Stress Acupressure Points

GB 21 GB 20 CV 17
Shoulder Well Gates of Consciousness Sea of Tranquility



Relax Inhaler

- ▶ Fractionated coconut oil base
- ▶ Lavandin
- ▶ Sweet marjoram
- ▶ Sweet orange
- ▶ Vetiver

- ▶ Use as needed
- ▶ Enjoy

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Thank you!

