Indications and Contraindications for Aromatherapy

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How to Recognize Toxicity in the Body

There are four ways a toxic reaction to essential oils can manifest in the body: allergic reactions, skin sensitization, skin irritation, and photosensitivity.

An allergic reaction to an essential oil can produce nausea, dizziness, sweating, palpitations, stomach pains, and mucous membrane irritation. Essential oils with a high proportion of terpene and phenolic compounds (such as Oregano Origanum compactum and Thyme Thymus vulgaris) may produce allergic effects. When use of the essential oil is stopped, the allergic reaction will usually disappear. It is best to avoid high phenol oils internally and to always dilute them before administering topically.

Skin sensitization is a reaction caused when an essential oil is applied to the skin. There may be no initial response but a reaction occurs after three or four exposures. Symptoms are similar to dermatitis, and they usually disappear if the essential oil is discontinued. Potential skin sensitizing oils include: Benzoin Styrax benzoin, Cinnamon Cinnamomum zeylanicum, Lemon Verbena Lippia citriodora, Peru Balsam Myroxylon pereirae, Pine Pinus sylvestris, tea tree Australia Melaleuca alternifolia, and Ylang ylang Cananga odorata, among others.

Skin irritation occurs immediately following application of an essential oil to the skin. There may be stinging, heat, redness, and itching. However, blistering of the skin can occur if a toxic essential oil is applied excessively. Essential oils that may cause skin irritation include: Clove Syzygium aromaticum, Cinnamon Cinnamomum zeylanicum, Mandarin Citrus reticulata, Oregano Origanum vulgare, and Orange (sweet) Citrus sinensis, among others.

Photosensitivity occurs when essential oils that concentrate UV rays are applied to the skin, and then the skin is exposed to the sun within 12 hours. Symptoms are usually redness, increased skin sensitivity, and itching. The reaction to UV rays does not disappear when the essential oil application is stopped and there may be permanent damage to the skin, including abnormal pigmentation. Essential oils that can cause photosensitivity include: Angelica Angelica archangelica, Bergamot Citrus aurantium var. bergamia (bergaptene-free bergamot is not phototoxic), Cedarwood Cedrus atlantica (Atlas) or Juniperus virginiana (Virginia), Cinnamon Cinnamomum zeylanicum, Clary Sage Salvia sclarea, Elecampane Inula helenium, Ginger Zingiber officinale, Grapefruit Citrus paradisi, Lavandin Lavandula intermedia, Lemon Citrus limonum, Lemon Verbena Aloysia triphylla, Lime Citrus aurantifolia, Lovage Levisticum officinale, Neroli Citrus aurantium var. amara, Opoponax Commiphora erythraea, Orange (bitter) Citrus aurantium, Orange (sweet) Citrus sinensis, Patchouli Pogostemon cablin,

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and Tangerine Citrus palustris.

Contraindications

Some essential oils are contraindicated for use with specific conditions. Several oils are contraindicated for use with pregnancy and while breast-feeding due to their abortifacient properties. To avoid administering an essential oil with a known contraindication, it’s important to complete a full client intake, including information about preexisting conditions like pregnancy. Essential oils to be avoided during pregnancy and while breast-feeding include: Anise Pimpinella anisum, Basil Ocimum basilicum, Bay Lauris nobilis, Bergamot Citrus aurantium var. bergamia, Black pepper Piper nigrum, Cedarwood Cedrus atlantica, Cinnamon Cinnamomum zeylanicum, Cypress Cupressus sempervirens var. stricta, Fennel Foeniculum vulgare, Jasmine Jasminum officinale, Juniper Juniperus communis, Marjoram Origanum majorana, Nutmeg Myristica fragrans, Peppermint Mentha piperita, Pine Pinus sylvestris, Rose Rosa damascena, Thyme Thymus vulgaris, and Yarrow Achillea millefolium.

Some essential oils are contraindicated because they contain specific constituents, such as 1,8 cineole, which is also called eucalyptol when found in Eucalyptus Eucalyptus globulus and cajuputol when found in Cajuput Melaleuca leucadendron.

1,8 cineole can cause symptoms of poisoning if administered above the RDD for an extended duration. Symptoms may include epigastric burning, nausea, vomiting, dizziness, muscular weakness, rapid heartbeat, and a feeling of suffocation. Convulsions may occur with extreme poisoning, and death has resulted in doses varying from 30 to 250 drops. Oils with 1,8 cineole are also contraindicated if there is a history of epilepsy, hypertension, gastrointestinal inflammation, and liver complaints.

1,8 cineole can irritate both the skin and mucous membranes. These oils should not be applied undiluted on wounds or skin inflammation as they can cause stinging on the skin if applied undiluted.

1,8 cineole-containing oils can also cause drug interactions. Administer with caution if a client is taking prescribed medication such as amphetamine, zoxazolamine, pentobarbital, and aminopyrine. Research in 1969 showed eucalyptol could also increase liver metabolism of some drugs. Pentobarbital brain levels were significantly reduced which lowered sleeping time even after 18 hours since the last eucalyptol exposure. For this reason, the effects of other drugs may be weakened or curtailed.

Do not administer essential oils at the same time as homeopathic remedies. Essential oils will limit the effectiveness of the homeopathic remedy.

For detailed information about essential oil contraindications, consult with a Registered Aromatherapist (RA). You can located an RA in your area on the Aromatherapy Registration Council website (http://aromatherapycouncil.org). You also can review the Aromatherapy Safety sections of the Aromatherapy Registration Council, the Alliance of International Aromatherapist (http://www.alliance-aromatherapists.org/index.htm), and the National Association for Holistic Aromatherapy website (www.naha.org) by going to the websites and typing “safety” in the search.

For further study, I’d recommend Aromatherapy for Health Professionals by Shirley and Len Price; this text provides a useful introduction to aromatherapy in modern healthcare settings. In addition, Essential Chemistry for Safe Aromatherapy by Sue Clark is a clear and concise guide to aromatherapy chemistry.

Before blending your essential oils, it is important to think about your goal. If your goal is natural aromatic perfumery, selection of your aroma notes will be different than if you are therapeutic blending for clinical aromatherapy purposes. That is not to say that the two are mutually exclusive. However, you will likely take a different approach for each.

This article focuses on blending for natural aromatic purposes, such as how to blend essential oils for body care products like massage oils and perfumes, and introduces the constituent method of therapeutic blending for clinical aromatherapy applications. However, therapeutic blending requires detailed knowledge of essential oils’ active constituents, aroma chemistry, and potential contraindications; therefore, if you plan to utilize therapeutic blending with your massage practice, I strongly recommend further study through continuing education courses in aromatherapy and/or consulting with a Registered Aromatherapist (RA) before attempting to create therapeutic blends for clients.

**Essential Oil Notes**

Essential oils fall into three descriptive aroma categories called notes: top notes, middle notes, and base notes.

Top notes give a burst of aroma and fade quickly. They are the most difficult to synthetically reproduce. Examples include: Bergamot (*Citrus aurantium var. bergamia*) and Neroli (*Citrus aurantium var. amara*). These essential oils are usually dominant in lighter, less complex constituents, such as monoterpenes.

The middle note is also called the body note because it can linger for one to two hours. You may also hear the middle note referred to as “the bouquet” or “heart” of the fragrance. It is easier than the top note to reproduce synthetically. Examples include: Cinnamon (*Cinnamomum zeylanicum*) and Geranium (*Pelargonium graveolens*). Middle note oils are where we find more complex constituents, such as phenols and ketones.

Base notes, by contrast, are “the glue” that holds a blend together. Base notes, also called the fixative or dryout note, can linger for up to one day, and are included in a blend for their strength and depth. Examples include: Patchouli (*Pogostemon cablin*) and Vetiver (*Vetiveria zizanoides*). This is where we find long chain diterpenes and notes that are complex and linger.

**Essential Oil Blends**

When blending, select your oils for how the notes work in combination. Your blend should reflect the preferences of the client for which you are creating it. Here are some tips to keep in mind:

- To create a balanced blend, consider each oil’s strength. You don’t want one oil such as chamomile (*Chamaemelum nobile*) to dominate.
- Select five or six oils for your blend. To make your selection, imagine the overall sensory experience you want to create, and then narrow your oil selection accordingly. For example, for a refreshing aroma, you can use Bergamot (*Citrus aurantium var. bergamia*), Lemongrass (*Cymbopogon citratus*), and Neroli (*Citrus aurantium var. amara*). However, all three are top notes; for balance, pick your favorite to combine with middle and base notes.
- Once you have selected your oils, blend in a small quantity. Start by creating a fragrance wand with perfume testing strips. This is where you will begin to develop your final ratio. Add 1 drop of each oil that you perceive as having a powerful aroma and 2 or 3 drops of less powerful oils. Each time you adjust your formula, write it down. When your wand has a pleasing aroma, start to blend a larger quantity using the same ratio and no more than a 25-drop total. Then make adjustments slowly for your preferences, writing down each adjustment until you achieve your final formula. It is easier to add than to take away, so go slowly.
- Take breaks. “Scent overload” can mask your true perceptions of the blend. Plus, breaks allow the blend to settle.
- Continue to use perfume testing strips to test your blend along the way.
- Write down your final formula, so you use the same ratios when you want to reproduce your blend.

This process creates a natural aromatic perfumery essential oil blend concentrate. To use, you will want to dilute your concentrate in a base.

For use in a massage oil blend, for example, a typical dilution is 3-6 drops of essential oil to 1 T of carrier oil (such as almond, camellia, or jojoba oil). To make a bulk quantity, a typical dilution is 50-100 drops of essential oil to 1 cup of carrier oil.

For use as a perfume, you’ll need to include a diluent. For a traditional perfume, a typical blend is 15-30% essential oil concentrate blended with 70-85% ethyl alcohol and 0-10% distilled water. For a lighter eau de parfum, blend 10-15% essential oil concentrate with 70-80% ethyl alcohol and 5-20% distilled water.
Therapeutic Blending
Creating a therapeutic blend goes beyond balancing aroma notes.

You always want to first identify the aroma preferences of your client because the therapeutic benefits and intended relaxation will not occur if you ask your client to use an aroma blend she doesn’t like or that recalls negative memories or emotions. An individual’s perception of an aroma triggered by olfactory memory stored deep in the limbic area of the brain can override any physical or psychological benefit of an oil.

To create a therapeutic blend, first determine which body system is out of balance. Then determine which therapeutic actions may help to return the body system to balance. For example, if your client’s muscular and eliminative system is out of balance, experienced via sore muscles following exercise, you may want to create a blend with a relaxant, antispasmodic, diuretic effect, which can aid in rebalancing.

Next, generate a list of essential oils associated with the therapeutic action(s) you want to foster based on aromacognosy. Remove any oils from the list that may be contraindicated for your client due to physiology, disease states, or possible oil/drug interactions.

Select the fewest number of oils that would work together synergistically with the least possibility of side effects, to address the most body system imbalances, taking into consideration the aroma preferences of your client. Create a small test blend to ensure the aroma is pleasing to your client, and conduct a skin patch test as necessary.

When you have finalized your selection of oils, make enough of your blend for your client to use for several days. Clearly label the blend and provide your client with detailed written instructions, including the Recommended Daily Dose (RDD).

Here is an example of a therapeutic blend for use with sore muscles: Arnica (Arnica montana) infused oil (1/4 oz), Lavender (Lavandula angustifolia) oil (10 drops), Rosemary (Rosmarinus officinalis) oil (8 drops), Peppermint (Mentha piperita) oil (8 drops), and Ginger (Zingiber officinale) oil (4 drops).

Be sure to explain to your client what to expect with consistent use, and instruct her to call immediately if she experiences any increase in discomfort or negative reactions to the blend.

Additional blends for use with common body system imbalances:

Rheumatic and Muscular Pains Formula (for external use only)
- Chamomile (Chamaemelum nobile) oil (antispasmodic): 12 drops
- Juniper (Juniperus communis) oil (diuretic): 12 drops
- Marjoram (Origanum majorana) oil (antispasmodic): 12 drops
- Rosemary (Rosmarinus officinalis) oil (circulatory stimulant, rubefacient): 12 drops

Blend 2-4 drops with 1 T carrier oil, like sweet almond, and apply to painful areas morning and night (more often if necessary).

Circulatory System Formula (for external use only)
- Lemon (Citrus limonum) oil (general tonic): 27 drops
- Lavender (Lavandula angustifolia) oil (antiseptic and anti-inflammatory): 14 drops
- Rosemary (Rosmarinus officinalis) oil (circulatory stimulant, rubefacient): 9 drops
- Black pepper (Piper nigrum) oil (rubefacient): 5 drops

Blend 2-4 drops with 1 T carrier oil, like sweet almond, and apply to painful areas morning and night (more often if necessary). This blend can also be used in the bath. Add 2-5 drops after the water is drawn.

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UPCOMING EXAMINATION DATES

April 6—20, 2013
Application Deadline: 3/1/2013

October 5—19, 2013
Application Deadline: 9/1/2013

American College of Healthcare Sciences – Accredited, online career training, AAS in Aromatherapy and MS degree available. Fully online programs, worldwide students and graduates, training by industry-specialist faculty. Online CEU’s also available for RAs, RNs and LMTs. Federal financial aid available to those who qualify. Contact Admissions at 800-487-8839. www.achs.edu, Portland, Oregon.

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(3) Aromacognosy is the study of the physiological and psychological/emotional properties of individual aroma constituents.
(4) Antispasmodic: relieve nervous irritability and reduce or prevent excessive involuntary muscular contractions and spasms
(5) Diuretic: increases the secretion and flow of urine
(6) Rubefacient: stimulates capillary dilation and causes skin redness; draws blood from deeper tissues and organs, relieves congestion and inflammation
(7) General tonic: stimulates, energizes, and strengthens the body
(8) Antiseptic: prevents, resists, and counteracts putrefaction (decay)