



## Safety: Using Oils Safely

### Three Considerations for Safety

Essential oils are concentrated plant extracts. Safety should be in the mind of every aromatherapist. For each essential oil, always consider:

- Therapeutic margin;
- Recommended daily dose (RDD); and
- Duration guidelines.

### Individuals

Be aware that everyone has a unique metabolism, vitality, and physical makeup. An acceptable dose for you may not be appropriate for others. When using essential oils, always closely monitor yourself or others.

### Follow Dosages

Never administer more than the recommended dose of essential oils. They are concentrated substances, and some have a low therapeutic margin.

### Low Therapeutic Margin

Remember some essential oils or herbs have a low therapeutic margin. This means that the dividing line between a therapeutic dose and a harmful dose is very small.

Use substances with a low therapeutic margin with caution and avoided orally, whether they are herbs or essential oils. Remember, the body does absorb essential oils through the skin and olfactory passages. Even if you apply essential oil to your skin, you are effectively taking it internally.

Always use essential oils with a low therapeutic margin with extreme care. In many cases, such as with children, the elderly, or with pre-existing conditions, they are best avoided. They are also seldom appropriate for the beginning aromatherapy student.

The important point to remember is that when a botanical has a low therapeutic margin, the difference between a helpful dose and a harmful dose can be very small – mere drops! Never make the mistake of increasing a dose to try to increase the benefits.

### Skin Irritation

Certain oils may cause irritation if used in too high a concentration. Before using any essential oil, confirm the recommended dosage and follow directions exactly. Conduct a skin patch test for each oil to determine any potential irritation.

*A low therapeutic margin means that the dividing line between a beneficial dose and a toxic dose is very small.*

Irritation is a direct result of contact with the abrasive material and is localized, and its extent is related to the concentration of the substance applied. The inflammation is usually a result of skin damage. Healing occurs once the material is removed.

Remove the irritating substance with vegetable oil, milk, or tepid water (although some authorities suggest that water may intensify the irritation at first).

Sometimes, irritants can cause more damage in stressed individuals whose skin is already compromised, whereas others can withstand the same concentration of substance without problem.

Skin patch testing can help the practitioner decide whether to use undiluted essential oils or not.

Some phenolic essential oils such as *Origanum compactum*; *Satureja montana*; *Pimenta dioica*; *Thymus vulgaris* ct *thymol* or *carvacrol*; *Cinnamomum zeylanicum* bark and leaves; and oxidized citrus, pine, and fir needle oils (although these are also considered to be potential sensitizers) can be irritant and caustic to the skin and mucus membranes. Oils high in 1,8 cineole, like *Eucalyptus dives* or *Syzygium aromaticum*, and others high in eugenol are also potential irritants.



*Thyme essential oil can irritate skin if applied undiluted.*

### Irritation versus Sensitization

Although both irritation and sensitization instigate an inflammatory reaction through the skin, remember that irritation is a direct result of contact with the abrasive material and is localized, and its extent is related to the concentration of the substance applied.

Sensitization is a systemic response involving the immune system. It usually manifests through an allergic skin reaction, since the skin is the first line of defense.

Sensitization can only occur once the offending substance has penetrated the skin, been picked up by proteins in the skin, and mediated by the IgE response that produces histamine and other irritants. Each person's response is unique, although there are certain substances that are considered to be sensitizers and are more likely than others to cause a response. The individual's immune system must "flag" or label a substance as being potentially threatening, and then "ring the alarm" to the rest of the immune system so that the next time he or she is exposed to this particular substance, there is a reaction.

People who are allergic to other substances and experience asthma, eczema, or hay fever are more likely to be sensitized by some essential oils.

To conduct a skin patch test for sensitization, test twice in 48 hours. Use the proposed concentration, place in the crook of the arm, and cover. After 24 hours, check for irritation, remove, and then patch test again. Usually, any sensitization reaction will show itself within 48 hours.

Potential sensitizers include *Cinnamomum zeylanicum*; *C. cassia* cinnamic aldehyde; the lactones in costus and elecampane; and oxidized monoterpenes in citrus, *Melaleuca alternifolia*, and pine needle oils. Other potential sensitizers are *Lippia citriodora*, *Styrax benzoin*, and Peru balsam. Ylang ylang may pose a slight risk, and if you are working with a hypersensitive individual, you may want to check first.

In the event of a sensitization response, remove the offending material. A homeopathic antihistamine or *Urtica urens* may assist to calm the immune response. Once the immune response has abated, then try an alternative essential oil. Turmeric *Curcuma longa* essential oil has been shown to have a more powerful effect than cortisone and may assist for sensitization responses. The significant anti-inflammatory effect of the essential oil of *C. longa* was attributed to its histaminic and prostaglandin inhibitory activity.

### Cross-sensitization

Cross-sensitization can occur when the immune system triggers a response to a similar irritant. The response can be in the form of a slight skin rash, eczema, or, in extreme cases, anaphylactic shock.

### Oral Use

We will consider oral (or by mouth) use under methods of use, but for now, be aware that oral use of essential oils requires particular care and usually is used by advanced practitioners only. It is not generally recommended for RAs. However for clients the choice to use an essential oil orally has to be a personal, informed choice. Oral use is sometimes considered controversial, but we actually ingest many essential oils in our food and products such as toothpaste. Many essential oils have a regulatory status in the U.S. known as GRAS, which is "Generally Recognized As Safe" and can be used in cooking in the correct amounts.

The use of essential oils orally should only be where appropriate, for example peppermint oil for digestive issues, and always follow dose and duration closely. Oral ingestion may have additional contraindications for an essential oil, for example, do not use orally in cases of kidney or liver disease.

Remember that when you inhale and apply essential oils, the molecules are being absorbed into your bloodstream, so we must always carefully follow dose, duration, and contraindication information, regardless of the selected method of use.

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## Essential Oils – The Soul of Nature or Dangerous Toxins?

Mindy Green

Information sources vary so widely on the myths and safety issues surrounding essential oils it is no wonder so many people are confused. Are these fragrant substances the answer to the ills of all humanity, the soul of nature guaranteed to connect us to our Spiritual Source, or dangerous toxins that will poison us? The answer is very likely that there is a little truth in every theory. Paracelsus said it best, "Poison is in everything, and no thing is without poison. The dosage makes it either a poison or a remedy." This is true of even the most innocuous over-the-counter preparations and home remedies, but here we will investigate this theory specific to botanical oils.

It is important to consider how essential oils enter and affect the body, factors that affect absorption rates, pathways of elimination, historic use, and chemistry of chosen oils. There are many disagreements among theories, safety issues, scientific literature, proper dosages, and eccentricities surrounding the use of essential oils. The way should always focus on the safest applications and low doses until more experience is gained. Much can be appropriately altered when considering the integration of aromatherapy into other forms of healing modalities as appropriate.

In many medical institutions around the world the use of essential oils are effective adjuncts to other botanical protocols in complementary care and is well practiced, especially outside the US. With attention paid to their safety issues, the inclusion of this therapy can be more effective than conventional treatments alone. For instance, we have all seen the dramatic headlines warning us of the overuse of antibiotics and their failure to treat infections which they once effectively controlled. In spite of commonly held assumptions that all bacteria are bad, optimal health requires that we maintain a symbiotic, health-enhancing partnership with many types of bacteria. For example, many different bacteria live within our digestive system and are essential for proper digestion, absorption of nutrients, and long term health. Every time we use an antibiotic, we undercut this bacterial partnership. By indiscriminately killing off all bacteria, we create an environment that may be filled by health-compromising pathogens or antibiotic-resistant bacteria that now have no competition for growth. Continued reliance on antibiotics has ominous future implications, given the increase in antibiotic-resistant bacteria. There is some evidence that botanical antibacterial agents are less likely to disrupt desirable bacteria. Aromatic medicines are gaining attention in the treatment of many health disorders, but none so much as with infections where antibiotics have lost their effectiveness, such as Methicillin-resistant *Staphylococcus aureus* (MRSA). The University of Manchester (UK) and other medical

institutions have carried out clinical trials on the effectiveness of essential oils against "super bugs" unresponsive to conventional antibiotic therapies. According to the researchers, studies revealed specific essential oils that killed MRSA, *Shigella*, and *E. coli*, as well as many other bacteria and fungi, some within minutes of contact.

Most essential oils have some degree of antibacterial, antifungal, and antiviral properties, but they also exhibit physical and emotional effects such as stimulation, relaxation, stress reduction, pain relief, and "correction of the terrain", depending on the chemical constituents of each individual essential oil. These beneficial emotional effects serve to complement healing on several levels. When safely administered, these oils can be easily incorporated into phytotherapeutic protocols for a more effective outcome in both acute and chronic problems. External use of properly diluted oil is the safest application.

The oral use of essential oils requires a broad education and is not to be entered into lightly. Self medication demands extensive self education as well as the guidance of a skilled medical provider and is not normally recommended to the lay practitioner. Safety, contraindications, quality of oil, medical history, allergies, dosage, and many other parameters must be considered before administering essential oils internally (vaginally and rectally), orally, and in some cases, even externally. In Europe this level of administration is allowed by medical doctors who have had specialized training. In *HerbalGram* #57 (2003), Jane Buckle, RN states, "While tinctures are a common way of using herbs, essential oils are rarely administered orally by aromatherapists. This could be because most aromatherapy training suggests the oral method is fraught with danger. However, many essential oils may be administered orally with safety." She further states, "If essential oils are being used for a clinical condition, it makes good sense that the person using the oils is trained to use them clinically. Even if essential oils are not being used clinically, it is best to understand how to use them safely because they are so concentrated." Interestingly, the Commission E monograph for lavender includes lavender essential oil for both internal use and as a bath additive. In fact, in most European pharmacies specifically diluted and professionally prepared essential oil capsules can be purchased over the counter and are intended for oral use. These products are not normally available in the U.S.

Throughout your studies it is best to emphasize safety and explore some of the preventive measures and synergistic adjuncts of herbs, diet, lifestyle, and essential oils for a variety of health concerns, and for supporting optimal health regimes.

## Upcoming Test Dates

<u>Application Deadline*</u>	<u>Examination Date</u>
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09/01/2008

10/18/2008

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