



## **Toxicology and Safety of Essential Oils**

**Do not use essential oils internally**

**Do not apply directly to skin; always dilute with carrier oil**

**Keep out of reach of children**

**Avoid contact with eyes and mucous membranes**

**Do not use citrus oils before exposure to UV light**

**Use only pure essential oils; avoid synthetic fragrances**

**Do not use essential oils on infants, children, pregnant women, the elderly, or those with serious health problems, without advanced medical study.**

**Avoid prolonged exposure without ventilation**

**Store essential oils and carrier oils properly to avoid degradation and rancidity**

**Do not use essential oils internally**

Should ingestion of an essential oil occur immediately call your local Poison Control Center.

Give milk to drink; do not give water or induce vomiting.

**Do not apply directly to skin; always dilute with carrier oil**

Essential oils are very concentrated. Dilute all essential oils before applying to the skin.

Some essential oils are regarded as safe to apply directly to small areas of the skin (lavender, tea tree). Never apply more than 1-2 drops of undiluted oil to skin. Patch testing is always advisable. Test oils diluted if working with sensitive skin.

If dermal irritation develops, apply vegetable oil or cream. Do not try to treat with more essential oils.

Dilutions (for massage and bath oil)

1/2 ounce = 15 cc = 15 ml = 1 Tablespoon

1 ounce = 30 cc = 30 ml = 2 Tablespoons

Adults: 2.5% dilution is recommended

Children under 12: 1%

A 2.5% blend for a 1 ounce bottle is 15 drops of essential oil. You can add 15 drops to 1 ounce of carrier oil.

A 1/2 ounce bottle is a perfect size for a bath blend. Add 2 or more essential oils using up to 7 or 8 drops to total to carrier oil. Pour this into tub.

For general non-medical use, avoid essential oils with highly sensitive skin and with any instances of skin allergies, severe inflammation & dermatitis.

## **Skin Reactions**

Skin reactions are dependent on the type of oil, the concentration of the oil, and the condition of the skin. It is best to check with clients to determine any prior history of skin reactions before using oils dermally. Old and oxidized oils are more prone to cause reactions, especially rashes.

Skin reactions to essential oils can take three forms: irritation, sensitization, phototoxicity.

### **Irritation:**

There are a few oils which are strongly or severely irritant. These include horseradish, mustard, garlic, and onion (which are rarely used in aromatherapy practice). Some oils used in massage practice can be moderately irritant, such as cinnamon, clove, fennel, and verbena. These oils should be used cautiously or avoided in cases of skin sensitivity.

### **Sensitization:**

Skin sensitization means an allergic skin reaction; this usually manifests as a rash. There are relatively few oils used in massage practice which can cause these problems. The most irritating are verbena, cinnamon, fennel.

### **Phototoxicity:**

Some essential oils can strongly increase sensitivity to sunlight when applied to the skin. This is especially dangerous when applied undiluted to the skin, but even low concentrations in a carrier oil can cause problems if followed by exposure to sun or tanning lamps. Phototoxicity will be much stronger directly after application of the oil, and will gradually decrease over an eight to twelve hour period; if higher than normal concentrations are used it can be longer. Most of the phototoxic oils are also photocarcinogenic. The most common oils which cause phototoxicity are the citruses; bergamot is the most reactive. Some citruses are phototoxic if expressed, but not if distilled, such as lemon and lime. Other oils include verbena and angelica. The best

practice is to use proper dilutions, avoid direct exposure to UV rays after application, and avoid the use of citrus oils if exposure will be occurring after treatment.

If you do develop skin irritation, apply a vegetable oil to the area. Essential oils are drawn to fats, so this will dilute the impact of the essential oils.

### **Avoid contact with eyes and mucous membranes**

If an essential oil gets into the eye, do not rub it. Saturate a cotton ball with milk or vegetable oil and wipe over the area affected. In severe instances flood the eye area with lukewarm water for 15 minutes.

Take special precautions with applications near delicate skin areas.

### **Use only pure essential oils; avoid synthetic fragrances**

(See “Adulteration, Contamination, and Synthetics”)

### **Avoid prolonged exposure without ventilation**

Overexposure to essential oils, especially in confined areas, can cause dizziness, nausea, light headedness, headache, blood sugar imbalances, irritability, euphoria. When exposed to high levels of essential oils make sure to keep the room well ventilated.

### **Store essential oils and carrier oils properly to avoid degradation and rancidity**

Air, heat and light degrade essential oils. Store essential oils in a cool, dark room and always keep your oils tightly sealed.

### **Do not use essential oils on infants, children, pregnant women, the elderly, or those with serious health problems, without advanced medical study.**

Steam inhalation should not be used by, or administered to, asthmatics.

If using homeopathics it is best to check with your doctor when using essential oils. Many oils are thought to antidote this type of therapy, such as peppermint and eucalyptus.

### **General Advice**

Before experimenting with an oil, become familiar with it's properties, dose, and precautions. When in doubt about a condition or an oil, consult a qualified medical specialist. If in doubt use safe, non-irritating essential oils and dilute them with a carrier oil before using.