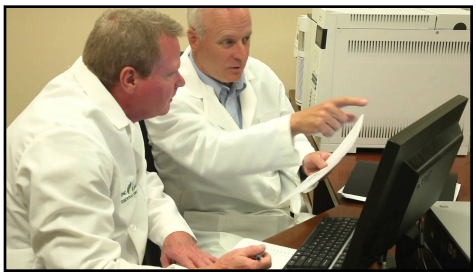
Key Compound Classes of Essential Oils



Phenolics help prepare for the activity of terpenes and may help clean cellular receptor sites so sesquiterpenes can delete faulty information from the cell. They have antioxidant properties and a high level of oxygenation molecules. Phenolics are stimulating to the nervous and immune systems. Clove, oregano, and wintergreen are examples of oils with a higher level of phenolics.

Ketones can also have cleansing actions in the absence of phenols. They have distinctive fragrances and are calming and sedative. They also stimulate cell regeneration, promote new tissue growth and liquify mucous. They are not as prevalent as monoterpenes and alcohols. Hyssop, thyme, and rosemary are examples that contain a significant amount of ketones.

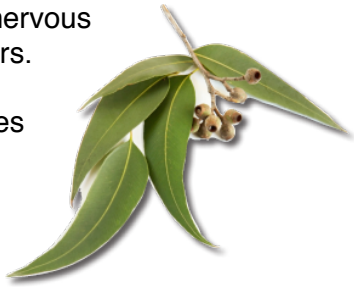
Sesquiterpenes is the largest terpene sub-group and because they are a more viscous oils, they increase the half-life of smaller molecules aromatically and therapeutically. They delete bad information in cellular memory and are present in almost all essential oils. They are the largest group of terpenes known naturally in the plant and animal kingdom. Cedarwood, myrrh, sandalwood are just a few essential oils that have high amounts of sesquiterpenes.

Diterpenes , found in Clary Sage essential oil, have similar properties as sesquiterpenes but are a heavier molecule. They are not as common in essential oils.

Monoterpenes are present in almost all essential oils and inhibit the accumulation of toxins. It acts as the balancing portion of the oil and can enhance therapeutic values of other components. It restores the correct information in the DNA of the cell once the sesquiterpenes and the phenolics have completed their functions. Citrus oils are known to have high amounts of d-limonene, which is a monoterpene. Grapefruit, orange, and balsam fir all contain high percentages of monoterpenes.

Alcohols have a high resistance to oxidation and the ability to revert cells to normal function as shown in animal studies. Rosewood, geranium and rose otto have high amounts of alcohols.

Esters are the result of the a reaction of an alcohol with an acid. They are the most relaxing, calming, and balancing of all the constituents. Very supportive of the nervous system. Bergamot, valerian and Roman Chamomile have high amounts of esters.



Oxides are derived from other compounds such as alcohols, terpenes or ketones which have been oxidized. They have an expectorant action and are mildly stimulating. 1,8-cineol or eucalyptus is the most prevalent member of the oxide group. Ravensara, rosemary, and eucalyptus are just a few essential oils that have a high amount of of oxide.

Aldehydes are responsible for all the delightful fragrance of essential oils. They are calming and supportive to the nervous and circulatory systems. Cinnamon bark, and lemongrass have a high amount of aldehydes.

Information Compiled by the Healthy Connections Team

Reference: David Stewart's book "The Chemistry of Essential Oils Made Simple"