

## What Are Therapeutic-Grade Essential Oils?

One of the factors that determines the purity of an oil is its chemical constituents or properties. These constituents can be affected by a vast number of variables, including: the part(s) of the plant from which the oils was produced, soil condition, fertilizer (organic or chemical), geographical region, climate, altitude, harvesting methods, and distillation processes.

For example common thyme (*Thymus vulgaris*) produces several different chemotypes bio-chemically unique variants within one species), depending on the conditions of its growth, climate, and altitude. One chemotype of thyme will yield an essential oil with high levels of thymol, depending on the time of year it is distilled. The later it is distilled in the growing season (mid summer or fall), The more thymol the oil will contain. The action Thymol has is that it is highly antimicrobial, antifungal, antiviral, uterine tonic, cardiogenic. (This was taken out of the EODR page 77)

The key to producing a therapeutic-grade essential oil is to preserve as many of the delicate aromatic compounds within the essential oil as possible. Fragile aromatic chemicals are easily destroyed by high temperature and pressure as well as contact with chemically reactive metals, such as copper or aluminum. This is why all therapeutic-grade essential oil should be distilled in stainless steel cooking chambers at a low pressure and low temperature. Gary Young, President and Founder of Young Living has only stainless steel cookers.

I would like to add this info while we are talking about the distillation of Therapeutic Essential Oils and why it is so important to know why you should be using Pure Therapeutic Essential oils.

Take for instance in the distillation of therapeutic essential oils. It is very crucial that they are distilled at low temperature and low pressure or it will fracture the molecule. When that happens then you no longer have a therapeutic essential oil. Also the length of time in distilling is very important. Let's talk about Cypress for instance: It has 280 properties. If it is distilled for 20 hours and you only get 20 of the 280 properties. If distilled for 26 hours you get 0 properties. But if distilled 24 hour, which is the correct length of time for distilling cypress, you will get the full 280 properties. Most distillers distill cypress for 3 1/2 hours. So are you going to get any value out of that cypress? No! That is why it is important to tell your people the difference between pure therapeutic essential oil verse other oils. They can say they are pure, which they have the right, if there is one drop of pure oil in the bottle. But most of the time when you ask how it was distilled they can not tell you.

The plant material should also be free of herbicides and other chemicals. These can react with the essential oil during distillation to produce toxic compounds. Because many pesticides are oil-soluble, they can also mix into the essential oil. This is why when Gary Young is buying from other companies he goes and see how they distill and makes sure that they are grown in virgin soil so that we get the purest therapeutic grade essential oils. And if it isn't, he doesn't buy it. Also when the oils come in they go through the AFNOR/ISO Standards . (Association French Normalization Organization Regulation) or ISO certification. This standard is more stringent and differentiates true therapeutic grade essential oils from similar Grade A essential oils with inferior chemistry.

The AFNOR standard was written by a team headed up by the government certified botanical chemist /and Doctor Casabianca. Dr. Casabianca introduced these standards into North American when he collaborated with Sue Chao at Young Living Essential Oils in 2000. When Young Living's essential oils was calibrated according to the European standards. Dr. Casabianca combined his studies with other research scientists and other doctors to make sure that everyone who wants therapeutic grade oil will get therapeutic grade oil.

For instance, Essential oil may be labeled as "basil" and have a botanical name (Ocimum basilicum), but it can have a widely different therapeutic actions, depending on its chemistry. For example, basil high in linalool or fenchol is primarily used for its antiseptic properties. However, basil high in methyl chavicol is more anti-inflammatory than antiseptic and is antispasmodic. A third type, basil high in eugenol, has both anti-inflammatory and antiseptic effect.

Of even greater concern is the fact that some oils are adulterated, engineered or "extended" with the use of synthetic chemical. They can be very detrimental, causing rashes, burning, skin irritations, allergic reactions, and etc., besides being devoid of any therapeutic effects. For example, pure frankincense is often extended with colorless, odorless solvents, such as diethylphthalate or dipropylene glycol. The only way to distinguish the "authentic" from the "adulterated" is to subject the essential oil to rigorous analytical testing using state-of-the-art gas chromatography, mass spectroscopy, and NMRI carbon testing. Also oils that are subjected to high heat and pressure have a distinctly simpler and inferior profile of chemical constituents, since excessive heat and temperature fractures and breaks down many of the delicate aromatic compounds within the oil--some of which are responsible for its therapeutic action. In addition, oils that are steam distilled are far different from those that are solvent extracted.

Lavender (Lavandula Angustifolia) has 187 constituents and synthetic lavender only has 4 constituents. How can you get any benefit from using over the counter lavender? Adulterated and mislabeled essential oils present dangers for consumers. One woman who had heard of the ability of lavender oil to sooth burns used lavender oil from a local health food store when she spilled boiling water on her arm. But the pain intensified and the burn worsened, so she later complained that lavender oil was worthless for soothing burns. When her "lavender" oil was analyzed, it was found to be lavandin, a hybrid lavender that is chemically very different from pure Lavandula Angustifolia. Lavandin contains high levels of camphor (12-18%) and can itself burn the skin which intensified her burn. The Lavandula Angustifolia, contains virtually no camphor and has a burn soothing agent which is not found in lavandin.