

# Basic Information

Science  
and  
Application

## BASIC FACTS ABOUT ESSENTIAL OILS

### How long have essential oils been around?

Essential oils were mankind's first medicine. From Egyptian hieroglyphics and Chinese manuscripts, we know that priests and physicians have been using essential oils for thousands of years. In Egypt, essential oils were used in the embalming process and well preserved oils were found in alabaster jars in King Tut's tomb. Egyptian temples were dedicated to the production and blending of the oils and recipes were recorded on the walls in hieroglyphics. There is even a sacred room in the temple of Isis on the island of Philae where a ritual called "Cleansing the Flesh and Blood of Evil Deities" was practiced. This form of emotional clearing required three days of cleansing using particular essential oils and oil baths.

There are 188 references to essential oils in the Bible. Oils such as frankincense, myrrh, rosemary, hyssop, and spikenard were used for anointing and healing the sick. In Exodus, the Lord gave the following recipe to Moses for "an holy anointing oil":

Myrrh ("five hundred shekels"—approximately 1 gallon)

Sweet Cinnamon ("two hundred and fifty shekels"—approximately ½ gallon)

Sweet Calamus ("two hundred and fifty shekels")

Cassia ("five hundred shekels")

Olive Oil ("an hin"—approximately 1 ⅓ gallons)

The three wise men presented the Christ child with essential oils of frankincense and myrrh. There are also accounts in the New Testament of the Bible where Jesus was anointed with spikenard oil; "And being in Bethany in the house of Simon the leper, as he sat at meat, there came a woman having an alabaster box of ointment of spikenard very precious; and she brake the box, and poured [it] on his head" (Mark 14:3). "Then took Mary a pound of ointment of spikenard, very costly, and anointed the feet of Jesus, and wiped his feet with her hair: and the house was filled with the odour of the ointment" (John 12:3). Some have even said that essential oils carry the consciousness of Christ.

(♥ *Nardostachys jatamansi*)





## What are *PURE, THERAPEUTIC-GRADE* essential oils?

Essential oils are the volatile liquids that are distilled from plants (including their respective parts such as seeds, bark, leaves, stems, roots, flowers, fruit, etc.). One of the factors that determine the purity and therapeutic value of an oil is its chemical constituents. These constituents can be affected by a vast number of variables including: the part(s) of the plant from which the oil was produced, soil condition, fertilizer (organic or chemical), geographical region, climate, altitude, harvest season and methods, and distillation process. For example, common thyme, or thyme vulgaris, produces several different chemotypes (biochemical specifics or simple species) depending on the conditions of its growth, climate, and altitude. One will produce high levels of thymol depending on the time of year it is distilled. If distilled during mid-summer or late fall, there can be higher levels of carvacrol which can cause the oil to be more caustic or irritating to the skin. Low pressure and low temperature are also keys to maintaining the purity, the ultimate fragrance, and the therapeutic value of the oil.

As we begin to understand the power of essential oils in the realm of personal, holistic health care, we comprehend the absolute necessity for obtaining the purest therapeutic-grade essential oils possible. No matter how costly pure therapeutic-grade essential oils may be, there can be no substitutes. Chemists can replicate some of the known individual constituents, but they have yet to successfully recreate complete essential oils in the laboratory.

The information in this book is based upon the use of pure, therapeutic-grade essential oils. Those who are beginning their journey into the realm of aromatherapy and essential oils, must actively seek for the purest quality and highest therapeutic-grade oils available. Anything less than pure, therapeutic-grade essential oil may not produce the desired results and can, in some cases, be extremely toxic.

## Why is it so difficult to find *PURE, THERAPEUTIC-GRADE* essential oils?

Producing the purest of oils can be very costly because it may require several hundred pounds, or even several thousand pounds of plant material to extract one pound of pure essential oil. For example, one pound of pure melissa oil sells for \$9,000 - \$15,000. Although this sounds quite expensive, one must realize that three tons of plant material are required to produce that single pound of oil. Because the vast majority of all the oils produced in the world today are used by the perfume industry, the oils are being purchased for their aromatic qualities only. High pressure, high temperatures, rapid processing and the use of chemical solvents are often employed during the distillation process so that a greater *quantity* of oil can be produced at a faster rate. These oils may smell just as good and cost much less, but will lack most, if not all, of the chemical constituents necessary to produce the expected therapeutic results.



## What benefits do *PURE, THERAPEUTIC-GRADE* essential oils provide?

1. Essential oils are the regenerating, oxygenating, and immune defense properties of plants.
2. Essential oils are so small in molecular size that they can quickly penetrate the skin.
3. Essential oils are lipid soluble and are capable of penetrating cell walls, even if they have hardened because of an oxygen deficiency. In fact, essential oils can affect every cell of the body within 20 minutes and are then metabolized like other nutrients.
4. Essential oils contain oxygen molecules which help to transport nutrients to the starving human cells. Because a nutritional deficiency is an oxygen deficiency, disease begins when the cells lack the oxygen for proper nutrient assimilation. By providing the needed oxygen, essential oils also work to stimulate the immune system.
5. Essential oils are very powerful antioxidants. Antioxidants create an unfriendly environment for free radicals. They prevent all mutations, work as free radical scavengers, prevent fungus, and prevent oxidation in the cells.
6. Essential oils are anti-bacterial, anti-cancerous, anti-fungal, anti-infectious, anti-microbial, anti-tumoral, anti-parasitic, anti-viral, and antiseptic. Essential oils have been shown to destroy all tested bacteria and viruses while simultaneously restoring balance to the body.
7. Essential oils may detoxify the cells and blood in the body.
8. Essential oils containing sesquiterpenes have the ability to pass the blood brain barrier, enabling them to be effective in the treatment of Alzheimer's disease, Lou Gehrig's disease, Parkinson's disease, and multiple sclerosis.
9. Essential oils are aromatic. When diffused, they provide **air purification** by:
  - A. Removing metallic particles and toxins from the air;
  - B. Increasing atmospheric oxygen;
  - C. Increasing ozone and negative ions in the area, which inhibits bacterial growth;
  - D. Destroying odors from mold, cigarettes, and animals; and
  - E. Filling the air with a fresh, aromatic scent.
10. Essential oils help promote emotional, physical, and spiritual healing.
11. Essential oils have a bio-electrical frequency that is several times greater than the frequency of herbs, food, and even the human body. Clinical research has shown that essential oils can quickly raise the frequency of the human body, restoring it to its normal, healthy level.

## What is frequency and how does it pertain to essential oils?

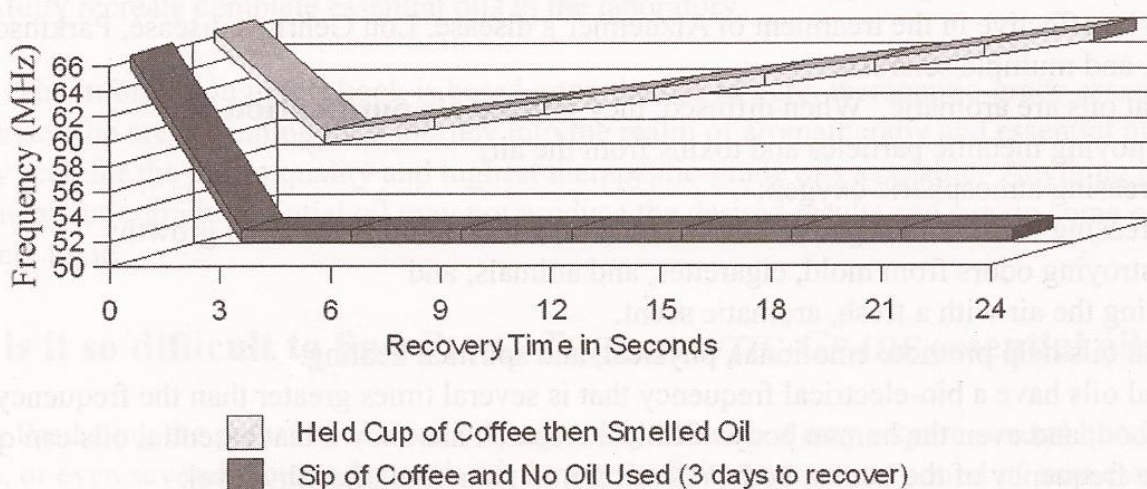
Frequency is a measurable rate of electrical energy that is constant between any two points. Everything has an electrical frequency. Bruce Tainio of Tainio Technology in Cheney, Washington, developed new equipment to measure the bio-frequency of humans and foods. Bruce Tainio and D. Gary Young, a North American expert on essential oils, used this bio-frequency monitor to determine the relationship between frequency and disease. Some of the results of their studies are shown in the following table.



Human Brain	72-90 MHz	Processed/canned food	0 MHz
Human Body (day)	62-68 MHz	Fresh Produce	up to 15 MHz
Cold Symptoms	58 MHz	Dry Herbs	12-22 MHz
Flu Symptoms	57 MHz	Fresh Herbs	20-27 MHz
Candida	55 MHz	Essential Oils	52-320 MHz
Epstein Barr	52 MHz	<b>Note:</b> Due to the sensitivity of the instruments, these results are not easily duplicatable. What is important is the relativity of the numbers and the fact that the higher frequency of the essential oils can help raise the frequency of the human body to a more normal level.	
Cancer	42 MHz		
Death Begins	25 MHz		

Another part of this same study measured the frequency fluctuations within the human body as different substances were introduced. The chart shown below illustrates the frequency reaction of the human body to the introduction of coffee. The subsequent time necessary for the frequency to return to its original measurement was shown to be substantially reduced with the use of essential oils.

## Frequency Reaction to Substance



Initially, the frequency of each of two different individuals—the first a 26 yr. old male and the second a 24 yr. old male—was measured at 66 MHz for both. The first individual held a cup of coffee (without drinking any) and his frequency dropped to 58 MHz in 3 seconds. He then removed the coffee and inhaled an aroma of essential oils. Within 21 seconds, his frequency had returned to 66 MHz. The second individual took a sip of coffee and his frequency dropped to 52 MHz in the same 3 seconds. However, no essential oils were used during the recovery time and it took 3 days for his frequency to return to the initial 66 MHz.

Another very interesting result of this study was the influence that thoughts have on our frequency as well. Negative thoughts lowered the measured frequency by 12 MHz and positive



thoughts raised the measured frequency by 10 MHz. It was also found that prayer and meditation increased the measured frequency levels by 15 MHz.

### **How do *PURE, THERAPEUTIC-GRADE* essential oils affect the brain?**

The blood-brain barrier is the barrier membrane between the circulating blood and the brain that prevents certain damaging substances from reaching brain tissue and cerebrospinal fluid. The American Medical Association (AMA) determined that if they could find an agent that would pass the blood-brain barrier, they would be able to cure Alzheimer's disease, Lou Gehrig's disease, multiple sclerosis, and Parkinson's disease. In June of 1994, it was documented by the Medical University of Berlin, Germany and Vienna, Austria that sesquiterpenes have the ability to go beyond the blood-brain barrier.

High levels of sesquiterpenes, found in the essential oils of frankincense and sandalwood, help increase the amount oxygen in the limbic system of the brain, particularly around the pineal and pituitary glands. This leads to an increase in secretions of antibodies, endorphins, and neurotransmitters.

Also present in the limbic system of the brain, is a gland called the amygdala. In 1989, it was discovered that the amygdala plays a major role in the storing and releasing of emotional trauma. The only way to stimulate this gland is with fragrance or the sense of smell. Therefore, with Aromatherapy and essential oils, we are now able to release emotional trauma.

### **What enables *PURE, THERAPEUTIC-GRADE* essential oils to provide such incredible benefits?**

Essential oils are chemically very heterogenetic; meaning they are very diverse in their effects and can perform several different functions. Synthetic chemicals are completely opposite in that they have basically one action. This gives essential oils a paradoxical nature which can be difficult to understand. However, they can be compared to another paradoxical group—human beings. For example, a man can play many roles: father, husband, friend, co-worker, accountant, school teacher, church volunteer, scout master, minister. etc. and so it is with essential oils. Lavender can be used for burns, insect bites, headaches, PMS, insomnia, stress and so forth.

The heterogenetic benefits of an oil depend greatly on its chemical constituents; and not only on the existence of specific constituents, but also their amounts in proportion to the other constituents that are present in the same oil. Some individual oils may have anywhere from 200 to 800 different chemical constituents. However, of the possible 800 different constituents, only about 200 of those have so far been identified. Although not everything is known about all the different constituents, most of them can be grouped into a few distinct families, each with some dominant characteristics. The following section provides greater insights into these constituent families.