



Antimicrobial powers of essential oils

Essential oils are by far the most highly concentrated and chemically active of all medicinal preparations from plants.

Essential oils have been scientifically studied since 1881 for their antiseptic properties. Early oils included oregano, cinnamon, and clove.

Extensively research and documentation over the last several decades has proven their clinical efficacy and revealed important medicinal properties.

One of the most important discoveries is that essential oils have pronounced antimicrobial effects.

Essential oils inhibit both aerobic and anaerobic microorganisms.

Bacteria are not able to develop resistance to essential oils, as they have to antibiotic drugs.

These discoveries have far-reaching implications as the antibiotic era comes to a close.

Essential oils contain a variety of chemical constituents; many biochemical mechanisms have been found which explain their antibacterial effects. The oils inhibit metabolic functions such as growth, multiplication, and cellular respiration.

Electronmicroscopial studies on the effects of essential oils of oregano, ravenclaw, and tea tree all show that bacteria brought in contact with these essential oils suffer rapid cell damage.

This influence on cellular membranes is not restricted to bacteria. Plant chloroplasts (chlorophyll containing cells) also reveal sensitivity to these compounds. That is the reason why essential oil producing plants had to develop special oil containers to separate the poisonous oil and the active membranes of the cells.

Essential oil molecules are very small and lipid soluble, so they easily penetrate and dissolve into cell membranes. The more potent of the antibiotic oils contain terpenoid compounds, which inhibit oxygen metabolism and the formation of ATP. Some of the

strongest of these compounds, such as thymol and carvacrol, can completely block oxygen intake in cell membranes.

Antibiotic drugs interrupt a specific metabolic pathway, such as the formation of a particular protein used to build a cell membrane. Bacteria can learn how to resist this specific disrupting influence within ten days of being exposed to the drug. The biochemical action of essential oils prevents this from happening.

By blocking the entire cellular respiratory function, bacteria are simply suffocated; there is no genetic trick that can be used to avoid the power of the oils, and bacteria cannot adapt to blocked breathing.

Essential oils are now gaining medical recognition as the best remedy against many types of infections.

Essential oils not only neutralize pathogenic germs, but also help to restore and correct the underlying humoral terrain (such as congested mucus membranes), as well as enhancing and stimulating the immune system.

Used properly, essential oils do not harm or disrupt beneficial intestinal flora.

They are effective against bacteria, viruses, parasites, fungus, and yeast.

Because of their wide-spectrum action against pathogens and immune enhancing functions, essential oils are an important alternative to antibiotic therapy.

Because of their potency and documented pharmaceutical efficacy, essential oils may become one of the important bridges between allopathic and herbal systems of medicine, by first replacing routine antibiotic prescriptions for easily treatable conditions, and later being applied to more serious conditions.

Although this research into the antimicrobial effects of essential oils is relatively recent, this is not new information; they have been used for this purpose for millennia.

Ancient people knew that essential oils had many uses, including medicines and preservatives of foods. Traditional medical systems such as Ayurveda had a general concept of microscopic pathogens, and knew that substances such as essential oils counteracted those toxins.

One of the ways that the presence of germs is known is through fetid odors. Sewage, rotting garbage, sick people, environmental pollution, and other sources of unpleasant smells reveal the presence of proliferating microbial toxins. Without needing to know the details of what pathogenic agents were present, ancient people understood that where there were bad vapors, diseases lurked. Aromatic plants have been the primary antidote for these 'evil spirits.'

The medicinal powers of essential oils have been utilized in various forms for millennia, such as unguents, lotions, perfumes, perfumed waters, fragrant baths and massage, incense, and innumerable other preparations.

Essential oil preparations were highly esteemed by the ancient physicians. Hippocrates, the 'father of modern medicine,' stated 'The way to health is to have an aromatic bath and scented massage every day.'