

Snake oil or science?

Peel an orange and small quantities of the fruit's oil is released from the peel. Whether you are aware of it or not, it gives you a lift. The gift of flowers to someone in the hospital yields a smell that gives the patient a psychological boost.

Why is this? The truth is we do not completely understand why. We know that essential oils contain up to 30,000 different compounds, which is why synthetic products do not come close to being as effective. At one time, the effect of plants was viewed as being magical or a gift from God. We currently know more about the science behind aromatherapy — but certainly not everything. Many oils have yet to be studied, and many compounds have yet to be identified.

Several major families of chemical compounds found in essential oils — along with their most widely-acknowledged therapeutic properties — are mentioned later in this article. Obviously, not every compound is in every oil, which is why different oils can have very different therapeutic effects.

During the Black Plague in the 14th and 16th centuries in Europe, people tried to protect themselves by carrying an aromatic pouch of herbs and essential oils to ward off the disease. This practice was a form of aromatherapy.

The science of aromachology is slightly different and is defined as the "psychology of scent." It focuses on the effects of certain herbal essential oils on humans, which include relaxation, improvement of work and behavior, stimulation of memory, and the reduction of stress. Aromachology is a concept developed under the leadership of the Sense of Smell Institute in the 1980s. It refers to a collection of scientific data under controlled conditions to study the interrelationship

MIND, BODY & SPIRIT

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of psychology and fragrance technology to transmit a variety of specific feelings and enhance behavior through the olfactory experience.

In dental offices we have opportunities to create positive or negative impressions. What do patients smell when they walk into your office? The infamous "dental smell." When we go home to our families, how many of us have heard "You smell like a dental office!"?

What about when you walk by the dentist's operatory and the smell of freshly cut decay knocks you off your feet. Some of us prefer the smell of stinky feet!

Aromachology seeks to establish the positive effects of aromas on human behavior that are verifiable through reproducible scientific experiments. Aromachology deals only with the psychological effects achieved through the use of ambient odors that stimulate the olfactory pathways to the brain.

Each essential oil belongs in a specific chemical category. When blending essential oils, it is good to stay in the same category by keeping the phenols together and the aldehydes together. This promotes safety, longevity of the blends, and more congruent scents. The blending and knowledge of which essential oils work best together should be done by a certified or registered aromatherapist.

Many products often incorrectly use the term aromatherapy in labeling.

Some media reporters and vendors even refer to aromatherapy as a "new discovery," thus giving a false sense of hype to aromatherapy and promoting inaccurate information.

The practice of aromatherapy is the use of volatile plant oils, including essential oils, for psychological and physical well-being. Holistic aromatherapy does not include the use of fragrance oils or unnatural products. Unfortunately, many sellers of so-called aromatherapy products just use the term to sell their pleasant-smelling products — sometimes even going so far as to make unfounded claims.

Common questions

Below are a few common questions and answers that will help clarify what aromatherapy can and can't do.

❑ *Can aromatherapy cure my major illness or psychological problem?*

If you expect or hope that aromatherapy will in itself cure a major illness or actually cure "stress," you will probably be in for disappointment. But if you expect that aromatherapy can help with a physical condition, can help with symptoms, can affect your mood, or help alleviate or temporarily eliminate stress, or other psychological factors, you may be delighted with the results that you experience.

For example, aromatherapy will not cure serious illnesses such as cancer or AIDS. Aromatherapy, however, can help enhance a cancer patient's quality of life

Various scent categories and effects on the central nervous system

- **Aldehydes** — Relaxing, calming, sedative, anti-infectious, anti-inflammatory, antiseptic
- **Phenols** — Stimulating, highly antiseptic
- **Sesquiterpenol** — Balancing, anti-inflammatory, stimulating of the immune system
- **Ketones** — Relaxing, supportive of respiratory system, dissolve and discharge mucous, stimulating cell regeneration
- **Esters** — Relaxing, antispasmodic, antifungal
- **Monoterpenes** — Stimulating, detoxifying, diuretic, antiseptic, antiinflammatory, antiviral, analgesic, antispasmodic
- **Alcohols** — Antibacterial, antiviral
- **Azulene** — Antihistamine, promoting healing, highly anti-inflammatory
- **Bisabolol** — The strongest of sesquiterpene, anti-bacterial, antifungal, antiinflammatory
- **Flavonoids** — This group of compounds is being very actively researched. Stimulating circulation, anti-cancer, preventing cardiovascular disorders
- **Farnesol** — Highly antiinflammatory, antibacterial
- **Limonene** — Highly antiviral
- **Terpene alcohols** — Highly antibacterial, stimulating of the immune system
- **Terpene hydrocarbons** — Highly antiviral
- **Thujone** — Relieving respiratory distress, stimulating of the immune system

by enhancing the patient's mood, calming fear, and can help ease nausea during chemotherapy treatments. Many of my cancer patients who request aromatherapy during their prophies ask if a similar technique can be implemented during chemo treatments. For AIDS patients, aromatherapy can also help enhance the patient's quality of life psychologically, and essential oils can help improve one's immune system, and thus potentially assist an AIDS patient that way.

Aromatherapy is a complementary alternative health modality. Its current use is not intended to replace standard medical care, but is meant to complement it. Aromatherapy can offer an alternative choice to taking prescription or over-the-counter chemical drugs. Aromatherapy can offer practical benefits for a variety of common ailments or symptoms such as assisting with cuts, wounds, bruises, inflammation, indigestion, acne, skin care, hair care, hygiene, PMS, menstruation, and for providing mental and emotional assistance with such issues as stress, fatigue, anxiety, fear, and the list goes on and on.

The very first aromatherapy blend that I ever attempted to create and apply was for fear and apprehension. Joe, a patient who had a fear of dental hygiene maintenance visits, habitually cancelled or did not show up for appointments. His fear stemmed

from his problem with gagging and the related embarrassment. His wife, a regular patient who had tried aromatherapy, thought the therapy would be great for her husband. He reluctantly and skeptically came in for an appointment. By the time he left, he thought this was the greatest invention since the saliva ejector! We discovered with more fine tuning of the initial blend that I could reach farther into the posterior portion than his cuspids with the mouth mirror. After three to five minutes of inhaling the initial blend, he was ready for a full-mouth set of X-rays and oral cancer examination.

I wasn't sure what to expect of this very first blend but it pleasantly surprised both of us. Now when Joe comes in for his appointments, the effect of the essential oil blend takes less time because of the psychological trigger of this memory.

Since then, Joe has yet to miss or cancel a maintenance visit. This story is merely one example of the realistic results that you may experience by introducing true aromatherapy into your dental office. I use the word "may" because everyone is different and everyone's experiences can vary.

Aromatherapy does have valid and extraordinary uses, and it can improve one's lifestyle tremendously. Again, let me remind you that this has a beneficial role in assisting with major illnesses but it cannot be considered a cure for serious medical issues.

In dentistry, we are not considered health-care providers who cure serious illnesses. True aromatherapy, when used correctly, is perfect for the dental office.

❑ *Why is aromatherapy gaining so much press and exposure if it's been in practice for thousands of years?*

Research update: Under laboratory conditions, mice have been proven to undergo behavioral changes after exposure to certain airborne scents. After having aromatic blasts of lavender and sandalwood oil introduced into their cages, excited mice appeared calmer. The implications of these kinds of animal studies for human users are yet to be determined, but preliminary aromatherapy science research suggests that certain holistic aromatherapy practices may have verifiable benefits in terms of mood regulation and stress reduction.

The strongest evidence aromatherapy science has produced in favor of the stress-reducing effects of smell was in a recent study on anxiety in hospital patients. In a study conducted at Manhattan's Sloan-Kettering Hospital, the scent of vanilla was shown to help reduce stress related to claustrophobia 63 percent during MRI scans. This is a dramatic statistic, and has helped raise interest in aromatherapy science in the academic community.

Aromatherapy science has primarily studied the uses of scent in high-stress situations, but there may be benefits to including it in your daily life as well. For decades, doctors and scientists have agreed that relaxation is an important part of controlling high blood pressure and heart problems, and aromatherapy is a simple stress management technique.

Aspects of aromatherapy have indeed been in existence for thousands of years. The term aromatherapy, however, was only introduced earlier in the 20th century. I believe the surge in awareness of aromatherapy is threefold:

- Society today is more health conscious and is now more receptive to natural alternative health modalities, including aromatherapy. The media has been actively covering the trends in increased health awareness and alternative medicine. The media has made a point to include the aromatherapy “buzzword.”

- The Internet has made it easier for individuals to access and share aromatherapy information. This ability to network has had a positive effect on the growth of aromatherapy and aromatherapy businesses.

- Lifestyles are now more hectic and stressful. Since aromatherapy can assist in reducing the symptoms of stress and help one energize or relax, society is taking notice. If you go to many stores that sell any kind of candles, bath or beauty products, you’ll most likely see products labeled with the word “aromatherapy.”

In my personal experience, when I see “aromatherapy” on products not sold by reputable aromatherapy retailers, the word is used incorrectly. So the surge in awareness of aromatherapy is both positive and negative. Unfortunately, incorrect information about aromatherapy is out there.

Science has shown that aromatherapy can strongly and quickly affect mood and behavior. Researchers recently discovered that the introduction of natural scents such as lavender and vanilla can significantly reduce anxiety and distress in at least some scenarios. These positive outcomes in aromatherapy science may spell great news for people who are looking for an affordable, easy way to relax, both in crisis situations and in everyday life.

Often, ignorance or lack of knowledge and awareness can lead to the view of aromatherapy being a “snake oil.” I have seen the changes it has made in other people’s lives. I hope I have enlightened you about aromatherapy, answering some of the questions about the effects it may have (both positive and negative) on many individuals. **RDH**

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