

Does Aromatherapy Work?

Does aromatherapy work or is this merely essential oils pseudoscience? Find out what science says about the benefits of aromatherapy.

The [National Association for Holistic Aromatherapy](#) describes aromatherapy as “the art and science of utilizing naturally extracted aromatic essences from plants to balance, harmonize and promote the health of body, mind and spirit.”

Aromatherapy uses the natural, organic, aromatic compounds found in plant cells. These compounds are typically extracted from the plants using steam or water distillation. Each plant provides its own blend of these aromatic compounds. Some plants provide 20 or so compounds while other plants can provide 100 or more different compounds. The result of the distillation process is what’s called an essential oil.

Some of these natural compounds found in essential oils include:

- [Geraniol](#)
- [Geranial](#)
- [Menthol](#)
- [Limonene](#)
- [Linalool](#)
- [Eucalyptol](#)
- [Eugenol](#)

Essential oils have been used to improve health and mood for 6,000 years. The people of China, India, Egypt and Rome have all a long history essential oil use. These oils have positive physical and psychological benefits.

Aromatherapy Today

While doctors once took full advantage of essential oils, modern Western medicine has primarily focused on

pharmaceutical drugs to manage disease. But, many doctors are reawakening to the potential of natural botanicals for maintaining and restoring health.

Aromatherapy is typically administered through inhalation or through topical application such as massage.

You inhale essential oils dispersed in the air. You can disperse several drops of the essential oil in the air around you by using a diffuser or a spray. Or you can also place a few drops of an essential oil in a bowl of hot water or a bath and breathe in the vapors.

You can also dilute an essential oil with a neutral carrier oil and apply the mixture to your skin. You add a few drops of essential oil to a carrier oil such as olive oil or jojoba oil. You can just rub this on your skin or use it as a massage oil.

How Aromatherapy Works

Essential oils are made up of aromatic compounds that usually smell good. The aroma can influence your body. But, the smell is not the major reason to use aromatherapy. Molecules of these compounds enter the blood stream where they can affect all parts of the body..

The authors of the article ([Aromatherapy On Central Nerve System \(Cns\): Therapeutic Mechanism AndIts Associated Genes.](#)) which appeared in the journal *Current Drug Targets* give us the latest thoughts about how essential oils used in aromatherapy produce their effects. They indicated that:

In contrast with current oral drugs used for the treatment of psychiatric disorders, essential oils produce pharmacologic effects, not only by the absorption through the skin and upper respiratory tract (URT), but also via the sense of smell.

This simply means that molecules from the organic components of essential oils can

1. enter the bloodstream through the skin or via the lungs to influence various part of the body, or
2. affect the sense of smell so that aromas or scents can alter such states as alertness, relaxation and joyfulness.



Does Aromatherapy Work? What Does Scientific Research Say About Aromatherapy?

Since aromatherapy does not use pharmaceutical drugs, doctors are reluctant to use natural substances like essential oils in their treatment. Using unauthorized, alternative treatments methods could be a cause for disciplinary action. But, when all other remedies have been exhausted, non-traditional or alternative protocols can be used.

Such is the first study here. Cancer patients on death's door are a pretty extreme case. Here cancer patients with at least 3 months to live were permitted aromatherapy massage as a way of trying to reduce their anxiety.

Does Aromatherapy Work for Cancer Patients?

An article ([Effectiveness of Aromatherapy Massage in the Management of Anxiety and Depression in Patients With Cancer: A Multicenter Randomized Controlled Trial](#)) appearing in the *Journal of Clinical Oncology* describes this study.

The study recruited 288 very sick cancer patients with an estimated prognosis of more than 3 months. Even so, 8% of these patients died during this 10 week trial. The patients had full- or borderline-case anxiety and/or depression. Of these patients, 221 completed the final assessment.

All the patients had access to psychological support services. 144 patients also participated in the aromatherapy treatment. This aromatherapy treatment consisted of 4 scheduled weekly hour-long massage sessions using 20 essential oils and massage techniques appropriate for the patient. 20 patients received only 1 aromatherapy session while the remainder received from 2 to 4 sessions.

Initially, patients participating in the aromatherapy treatments showed highly significant ($p < 0.001$) improvements compared to non-treatment patients in their anxiety or depression. Evaluation at 6 weeks (2 weeks after the end of the aromatherapy sessions) showed significantly ($p < 0.01$) more of the aromatherapy patients improvement in their anxiety or depression scores than non-aromatherapy patients.

But, at 10 weeks, the differences between the aromatherapy and non-aromatherapy patients were negligible.

The authors conclude that, "We have shown that four weekly sessions of aromatherapy massage improves clinical anxiety

and/or depression experienced by cancer patients up to 2 weeks after the end of the intervention. This benefit is not, however, sustained at 6 weeks postintervention.”

Another study on cancer patients ([The ToT Study: Helping with Touch or Talk \(ToT \): a pilotrandomised controlled trial to examine the clinical effectiveness of aromatherapy massage versus cognitive behaviour therapy for emotional distress in patients in cancer/palliative care](#)) reported in the journal *Psycho-Oncology* reported on a comparison between aromatherapy massage and cognitive behavior therapy (CBT) for anxiety. Both aromatherapy and CBT were initially effective in significantly reducing anxiety. But, the effects of CBT persisted longer when it came to a 3 month followup.

The authors concluded: ” Both CBT and AM may be beneficial for anxiety in the short term, but CBT may have an advantage over AM for treating depression in the longer term.”

Does Aromatherapy Work for Cardiac Patients?

An article ([Effects of Aromatherapy on the Anxiety, Vital Signs, and Sleep Quality of Percutaneous Coronary Intervention Patients in Intensive Care Units](#)) in the journal *Evidence-Based Complementary and Alternative Medicine* describes how aromatherapy reduced anxiety levels of cardiac patients in the intensive care unit.

This study involved patients about to undergo “Percutaneous Coronary Intervention”. Most people know this by the older term of angioplasty. This is where a stent is inserted through a thin flexible tube into the heart to open up blood vessels in the heart.

Patients about to undergo this procedure are in the intensive care unit (ICU) of the hospital for examinations and a variety of testing procedures. They have typically experienced a heart attack with severe chest pain. They are now separated from their families and in unfamiliar surroundings. Their level of

psychological stress is high. Their stress, anxiety and insomnia can cause further heart damage, arrhythmia, and complicate their treatment and recovery.

Because aromatherapy has been shown to reduce stress and anxiety and improve sleep quality in various patients in other situations (cancer, dialyses, colonoscopy), this study assessed the value of aromatherapy in patients about to undergo stent insertion.

The experiment involved 28 patients in the aromatherapy group and 28 patients receiving traditional treatment.

The study tested the effect of a blend of lavender, roman chamomile, and neroli oil on anxiety, sleep, and blood pressure. The oils were blended at a ratio 6 : 2 : 0.5 as prescribed by an aromatherapist. Lavender reduces heart stimulation and lowers blood pressure; chamomile is calming and helps relieve stress and anxiety; neroli is calming and helps treat insomnia.

The aromatherapy group breathed in the vapors of two drops of the blend both before and after their procedure. And, an aroma scented “stone” was placed under the patient’s pillow until the morning after the procedure.

The results showed a very significant ($p < 0.001$) reduction in anxiety and improvement in the sleep scores in the aromatherapy group compared to the control group. There was no significant difference in blood pressure due to aromatherapy.

The authors concluded that “aromatherapy reduced anxiety, increased sleep, and stabilized the BP of patients undergoing cardiac stent insertion.”

Does Aromatherapy Work for the Immune System?

An article ([Immunological and Psychological Benefits of Aromatherapy Massage](#)) appearing in the journal *Evidence-Based*

Complementary and Alternative Medicine described an experiment to examine aromatherapy's effects on the immune system.

The experiment used subjects who experienced massage with both a carrier oil (sweet almond oil) alone or with the carrier oil with essential oils (lavender oil, cypress oil and sweet marjoram oil).

A skilled massage therapist massaged the back, shoulders, arms, hands, lower legs and feet of the subjects for about 20 minutes during each massage session. The subjects were tested and gave blood and saliva samples before and after the massage sessions.

The results showed that the stress and anxiety scores dropped after massage for both the aromatherapy group and the control massage with carrier oil only group. The CD8⁺ cells and CD16⁺ cells significantly increased after the aromatherapy massage but not after the control massage.

CD8⁺ cells (also called cytotoxic T cells) and CD16⁺ cells (human monocytes) are components of the immune system. The authors conclude that, "These results suggest that aromatherapy massage is a valuable relaxation technique for reducing anxiety and stress, and beneficial to the immune system."

Does Aromatherapy Work? More Clinical Studies Planned

The evidence indicates that aromatherapy is not simply essential oils pseudoscience. There is growing interest in aromatherapy within the medical community. This is evidenced by the results of clinical studies and the large number of clinical studies planned using aromatherapy. Here are a few such studies being planned as of this writing.

- [Aromatherapy as Treatment for Nausea and Vomiting of](#)

Pregnancy

- Investigate the Efficacy and Effectiveness of Aromatherapy for the Management of Behavioral and Psychological Symptoms of Dementia
3. Investigate the Efficacy and Effectiveness of Aromatherapy for the Management of Chronic Pain
- Aromatherapy for Integrated Cancer Care
 - Assessment of the Aromatherapy to Alleviate Peri Operative Anxiety in Ambulatory Elective Upper Limb Surgery Under Loco-regional Anesthesia (AROMA)
 - Aromatherapy in Management of Postoperative Nausea in Post-Bariatric Surgery Patients
 - Aromatherapy for Chemotherapy-induced Symptoms
 - Aromatherapy Randomization of Pain Management in Adults (AROMA)