



Ask The Doctor FAQ

By Kamyar Hedayat, M.D.

What is Medical Aromatherapy?

Medical aromatherapy is the use of medical quality essential oils derived from specific plants to help with emotional, psychological and physical illnesses.

Isn't aromatherapy only for candles and soaps?

Most commercial "aromatherapy" products contain fragrance oils comprised of synthetic aroma chemicals manufactured in a lab. These chemicals are not plant-derived or natural. They may smell pleasant, but they don't have any clinical effects - and could possibly cause headaches, allergic reactions, anaphylaxis, and bronchoconstriction in sensitive individuals.¹ Many synthetic fragrances also contain Bisphenol A (BPA), a known neurotoxin.

What are essential oils?

Essential oils are plant secretions that are steam distilled or expressed from various parts of plants, such as the rind, seeds, leaves, flowers, bark, roots and rhizomes. Essential oils are like the hormones of plants. They aid in protection against disease, reproduction, defense against pests, wound healing, etc.²

What are "medical quality" essential oils?

Medical quality essential oils are essential oils from plants and trees that have been grown in an ecologically sensible or sustainable manner, carefully harvested and slowly distilled for the highest quality essential oil. Our essential oils are sourced directly from trusted distillers around the world. These distillers often operate multi-generation family farms that ethically grow or wildcraft medicinal plants. When essential oils are distilled slowly and in small batches, more of the therapeutic compounds remain, making the essential oils more efficacious.

The FDA recognizes two grades of essential oils. "Food grade" oils are often used for toothpastes and foods and contain low-quality plant material that is distilled quickly in large batches, damaging the healing qualities of the essential oils. "Fragrance grade" essential oils are often used in perfumes, soaps, bath salts, etc. This grade is even lower than food grade and is not meant for internal consumption. They are typically very low grade essential oils, natural isolates such as menthol, or even synthetics.

How do essential oils work?

Essential oils work in three ways:

1. Inhalation:

a. Olfaction: Smelling essential oils stimulates the olfactory (smell) nerve which causes signals to be transmitted through the nervous system directly to the limbic system, the seat of memory and emotions.³ From there they influence the thalamus, the hypothalamus and the frontal cortex, affecting movement, hormones, respiration, the nervous system and cognition.^{4,5}

b. Alveolar absorption: Like gas anesthesia or albuterol, the small size of essential oil compounds allows for bronchiolar deposition⁶ and trans-alveolar absorption into the blood stream.⁷

2. Topical: The small size of essential oil compounds (<350 amu) allows for rapid transdermal absorption and systemic absorption.⁸ The pharmaceutical industry is using essential oils to facilitate transdermal absorption of topical drugs such as estrogen and nicotine.

3. Internal: Essential oils can be taken internally for optimal effect and to avoid evaporation of volatile compounds from topical and inhalational use.⁹ Essential oils work on cell receptors much like synthetic drugs do. However, because each essential oil has dozens of active compounds, they contain counter-balancing effects from the main effect, resulting in a lower side-effect profile compared to synthetic pharmaceuticals.

How can medical aromatherapy help?

Aromatic plants have been used medically for thousands of years and are one of the oldest healing methods. Over the last 100 years, prestigious universities in Europe, North America, Japan and Australia have extensively researched the biochemical and clinical properties of essential oils in dozens of clinical conditions, including:

- Alopecia¹⁰
- Arthritis¹¹
- Alzheimer's dementia¹²
- Chronic Obstructive Lung Disease⁶

- Depression¹³
- Dysmenorrhea¹⁴
- Gastro-intestinal colic¹⁵
- Headaches¹⁶
- Insomnia¹⁷
- Irritable Bowel Syndrome¹⁸
- Memory¹⁹
- Menopause²⁰
- Multi-drug resistant infectious diseases^{21, 22}
- Seizures²³

Is it safe for essential oils to be taken internally?

Medical quality essential oil products, formulated by or used under the direction of an experienced clinical aromatherapist can be taken internally. Multiple studies have used essential oils internally in infants, children and adults with no reported side effects.^{15, 18, 24, 25}

Aroma MD™ formulations are designed by Kamyar M. Hedayat, MD, a Stanford-trained critical care physician and certified clinical aromatherapist. They are exclusively manufactured by our trusted manufacturing partner, Time Laboratories.

Aroma MD™ products are carefully formulated to be safe from childhood to adulthood with maximum therapeutic effects. Aroma MD™ products are properly diluted so as to be safe enough to apply on the skin and taken internally and still be effective by inhalation.

Is medical aromatherapy safe for children?

Aroma MD™ products are clearly labeled with appropriate age ranges for topical and internal use and are safe for infants, children and adults. Most aromatherapy companies do not formulate clinical aromatherapy products with children in mind because of inadequate training and lack of medical expertise. Dr. Hedayat personally develops the

formulas for all Aroma MD™ products and then those formulas are expertly crafted into finished products by Time Laboratories.



How else can I recommend medical aromatherapy for my patients, clients, or customers?

Inhalation: From the bottle, on a cotton ball or pillow; good for acute problems, emotional and psychiatric issues.

Topical: Good for skin disorders, sub-acute problems; use over local areas of discomfort, i.e. chest for lower respiratory tract disorders, on knee for osteoarthritis, etc. Internal: For chronic disorders of a psychiatric or systemic nature, for receptor medication and to stimulate innate healing properties.

Bath: Improves transdermal systemic uptake through vasodilatation, improves inhalation volatilization of essential oils; optimal for stress, insomnia, musculo-skeletal and infectious issues.

These statements have not been evaluated by the Food & Drug Administration. Aroma MD™ products are not intended to diagnose, treat, cure, or prevent any disease. Pure essential oils should always be diluted prior to use. Aroma MD™ products are pre-diluted in a base of organic jojoba oil, so no further dilution is required.

REFERENCES

1. Ross PM, Whyssner J, Covello VT, et al. Olfaction and symptoms in the multiple chemical sensitivities syndrome. *Preventive Medicine* 1999;28(5):467-80; 2. Loza-Tavera H. Monoterpenes in essential oils. *Biosynthesis and properties. Advances in experimental medicine and biology* 1999;464:49-62; 3. Stocker T, Kellermann T, Schneider F, et al. Dependence of amygdala activation on echo time: results from olfactory fMRI experiments. *NeuroImage* 2006;30(1):151-9; 4. Masaoka Y, Koiva N, Homma I. Inspiratory phase-locked alpha oscillation in human olfaction: source generators estimated by a dipole tracing method. *The Journal of Physiology* 2005;566(Pt 3):979-97; 5. Alexander M. How aromatherapy works: synthetic and efficacious pathways of essential oils in the human physiology. *St. Petersburg, FL: Whole Spectrum Arts; 2000*; 6. Hasani A, Pavia D, Toms N, Dilworth P, Agnew JE. Effect of aromatics on lung mucociliary clearance in patients with chronic airways obstruction. *Journal of Alternative and Complementary Medicine (New York, NY)* 2003;9(2):243-9; 7. Falk A, Lof A, Hagberg M, Hjelm EW, Wang Z. Human exposure to 3-carene by inhalation: toxicokinetics, effects on pulmonary function and occurrence of irritative and CNS symptoms. *Toxicology and Applied Pharmacology* 1991;110(2):198-205; 8. Hongratanavarakit T, Buchbauer G. Relaxing effect of ylang ylang oil on humans after transdermal absorption. *Phytother Res* 2006;20(9):758-63; 9. Valnet J, Tisserand R. *The practice of aromatherapy: a classic compendium of plant medicines and their healing properties*. Rochester, Vt: Healing Arts Press; 10. Hay LC, Jamieson M, Ormerod AD. Randomized trial of aromatherapy. Successful treatment for alopecia areata. *Archives of Dermatology* 1998;134(11):1349-52; 11. Kim MI, Nam ES, Paik SI. [The effects of aromatherapy on pain, depression, and life satisfaction of arthritis patients]. *Taehan Kanho Hakhoe chi* 2005;35(1):186-94; 12. Lin PW, Chan WC, Ng BF, Lam LC. Efficacy of aromatherapy (*Lavandula angustifolia*) as an intervention for agitated behaviours in Chinese older persons with dementia: a cross-over randomized trial. *International Journal of Geriatric Psychiatry* 2007;22(5):405-10; 13. Lee IS, Lee GI. [Effects of lavender aromatherapy on insomnia and depression in women college students]. *Taehan Kanho Hakhoe Chi* 2006;36(1):136-43; 14. Han SH, Hur MH, Buckle J, Choi J, Lee MS. Effect of aromatherapy on symptoms of dysmenorrhea in college students: A randomized placebo-controlled clinical trial. *Journal of Alternative and Complementary Medicine (New York, NY)* 2006;12(6):535-41; 15. Alexandrovich I, Rakovitskaya O, Kolmo E, Sidorova T, Shushunov S. The effect of fennel (*Foeniculum Vulgare*) seed oil emulsion in infantile colic: a randomized, placebo-controlled study. *Alternative Therapies in Health and Medicine* 2003;9(4):58-61; 16. Gobel H, Schmidt G, Soyka D. Effect of peppermint and eucalyptus oil preparations on neurophysiological and experimental algometric headache parameters. *Cephalalgia* 1994;14(3):228-34; discussion 182; 17. Goel N, Kim H, Lao RP. An olfactory stimulus modifies nighttime sleep in young men and women. *Chronobiology International* 2005;22(5):889-904; 18. Kline RM, Kline JJ, Di Palma J, Barbero GI. Enteric-coated, pH-dependent peppermint oil capsules for the treatment of irritable bowel syndrome in children. *The Journal of Pediatrics* 2001;138(1):125-8; 19. Tildesley NT, Kennedy DO, Perry EK, Ballard CG, Wesnes KA, Scholey AB. Positive modulation of mood and cognitive performance following administration of acute doses of *Salvia lavandulaefolia* essential oil to healthy young volunteers. *Physiology and Behavior* 2005;83(5):699-709; 20. Murakami S, Shirota T, Hayashi S, Ishizuka B. Aromatherapy for outpatients with menopausal symptoms in obstetrics and gynecology. *Journal of Alternative and Complementary Medicine (New York, NY)* 2005;11(3):491-4; 21. Betoni JE, Mantovani RP, Barbosa LN, Di Stasi LC, Fernandes Junior A. Synergism between plant extract and antimicrobial drugs used on *Staphylococcus aureus* diseases. *Memorias do Instituto Oswaldo Cruz* 2006;101(4):387-90; 22. Gordani R, Regji P, Kaloustian J, Portugal H. Potentiation of antifungal activity of amphotericin B by essential oil from *Ginnomomum cassia*. *Phytother Res* 2006;20(1):58-61; 23. Betts T. Use of aromatherapy (with or without hypnosis) in the treatment of intractable epilepsy—a two-year follow-up study. *Seizure* 2003;12(8):534-8; 24. Goerg KI, Spilker T. Effect of peppermint oil and caraway oil on gastrointestinal motility in healthy volunteers: a pharmacodynamic study using simultaneous determination of gastric and gall-bladder emptying and oro-caecal transit time. *Alimentary Pharmacology and Therapeutics* 2003;17(3):445-51; 25. Tildesley NT, Kennedy DO, Perry EK, et al. *Salvia lavandulaefolia* (Spanish sage) enhances memory in healthy young volunteers. *Pharmacology, biochemistry, and behavior* 2003;75(3):669-74.

**To Order Aroma MD™ products:
please visit: www.timelabs.com
or call 877-846-3522**