

essential oil

n.

A volatile oil, usually having the characteristic odor or flavor of the plant from which it is obtained, used to make perfumes and flavorings

Essential oils

Volatile, fragrant oils obtained from plants. Essential oils are distinguished from those known as fixed oils, which are mainly triglycerides of fatty acids. Essential oils have been obtained from over 3000 plants and are designated and defined by the plant species and sometimes the geographical location.

The sources of these oils are diverse, including flower petals (for example, rose and jasmine), spices (cinnamon and ginger), pine oil and turpentine, and citrus fruit peels. Compounds present in the juice that may contribute to the distinctive flavor of a fruit or berry are not, strictly speaking, components of the essential oil.

Chemically, essential oils are extremely complex mixtures containing compounds of every major functional-group class. The oils are isolated by steam distillation, extraction, or mechanical expression of the plant material; often only certain parts, such as roots, buds, leaves, or flower petals, are used. Essential oils have been produced and used for flavoring, incense, and medicinal purposes for many centuries.

Description

Essential oils are the fragrant oils that are present in many plants. Hundreds of plants yield essential oils that are used as perfumes, food flavorings, medicines, and as fragrant and antiseptic additives in many common products.

Essential oils have been used for thousands of years. The ancient civilizations of Mesopotamia, more than 5,000 years ago, had machines for obtaining essential oils from plants. Essential oils were the primary source of perfumes for the ancient civilizations of Egypt, India, Greece, and Rome.

Essential oils have been found in 3,000-year-old tombs in the Pyramids, and early Greek physicians, including Hippocrates, mentioned aromatic plant essences and oil massages for their healing and mood-enhancing qualities. The Romans associated essential oils and their fine aromas with wealth and success. Ayurvedic medicine, the world's oldest healing system, has long recommended essential oil massage as a health treatment for many conditions.

In modern times, essential oils are used in the manufacture of high quality perfumes, as additives in many common products, and in the healing practice of aromatherapy. Aromatherapy was begun in the 1920s by a French chemist named René-Maurice Gattefosse, who became convinced of the healing powers of essential oils when he used lavender oil to effectively heal a severe burn on his body.

Gattefosse also discovered that essential oils could be absorbed into the bloodstream when applied to the skin, and had medicinal effects inside the body. Another Frenchman, Dr. Jean Valnet, used essential oils during World War II to treat soldiers, and wrote a major book on the topic in 1964 called *Aromatherapie*. European biochemist, Marguerite Maury, performed thorough studies of how essential oils influence the body and emotions, and popularized essential oil massages as therapy. In the 1990s, aromatherapy was one of the fastest-growing alternative health treatments.

Essential oils are produced using several techniques. Distillation uses water and steam to remove the oils from dried or fresh plants, and the expression method uses machines to squeeze the oil out of plants. Other techniques may use alcohol or solvents to remove essential oils from plant materials. Essential oils are extremely concentrated. It would take roughly thirty cups of herbal tea to equal the concentration of plant essence in one drop of essential oil. Some essential oils made from rose plants require 4,000 pounds of rose petals to make one pound of essential oil, and are thus very expensive. Lavender is one of the easiest essential oils to produce, because it only takes one hundred pounds of plant material to produce one pound of essential oil.

Essential oils are generally very complex chemically, containing many different substances and compounds. Some experts have theorized that essential oils are the lifeblood of a plant, and contain compounds that the plant uses to fight infections and drive away germs and parasites. Scientific research has isolated hundreds of chemicals in essential oils, and has shown many essential oils to have **anti-bacterial, anti-fungal, and antiparasitic properties**.

Some essential oils contain more than 200 identified chemical substances. Although there are hundreds of essential oils that are used regularly in healing treatments and perfumes, some of the more commonly used essential oils are lavender, chamomile, peppermint, tea tree oil, eucalyptus, geranium, jasmine, rose, lemon, orange, rosemary, frankincense, and sandalwood.

General Use

Essential oils are used in several healing systems, including aromatherapy, Ayurvedic medicine, and massage therapy.

Essential oils are used for skin and scalp conditions including acne, athlete's foot, burns, cuts, dandruff, eczema, insect bites, parasites, sunburn, warts, and wrinkles. They are recommended for muscle, joint, and circulation problems such as arthritis, high blood pressure, cellulite, aches and pains, and varicose veins. For respiratory problems and infections, various essential oils are prescribed for allergies, asthma, earache, sinus infections, congestion, and colds and flu. Essential oils are also used to improve digestion, promote hormonal balance, and tone the nervous system in conditions including anxiety, depression, sexual dysfunction, and exhaustion.

Essential oils can be used as quick and effective mood enhancers, for increasing energy and alertness or reducing stress and promoting relaxation. Essential oils can be used as perfumes and lotions, and can be used as incense to improve the atmosphere in houses and offices.

In 2002, several reports were made on the benefits of **tea tree oil** in fighting infections. Although still preliminary, these reports will help pave the way to greater acceptance of essential oils in the mainstream medical community. In the case of tea tree oil, one small study showed its effectiveness in fighting orthopedic (bone, joint, and soft tissue) infections. Another recent study showed promising results for tea tree oil gel in topical treatment of recurrent herpes labialis.

Preparations

Essential oils work by entering the body in two ways, through the nose and through the skin. The nose is a powerful sense organ, and the sense of smell is connected directly to the limbic system of the brain, which helps control emotions, memory, and several functions in the body. Research has shown that aromas and the sense of smell influence memory recall, moods, and bodily responses such as heart rate, respiration, hormone levels, and stress reactions. Essential oils with their potent aromas can be used to enhance moods, promote relaxation, and increase energy levels.

Essential oils are also absorbed by the skin, and act medicinally once they are absorbed into the body. For instance, eucalyptus oil, long used in common cough and cold remedies, can be rubbed on the chest to break up congestion and mucus inside the lungs. Some essential oils, such as tea tree oil, lavender, and thyme, have natural antiseptics in them, and can be applied to cuts, burns, and sores to disinfect and promote healing.

Because essential oils are very strong and concentrated, they should be diluted with base oils before rubbing them directly on the body. Base oils are gentle and inexpensive oils, and common ones include almond, jojoba, grapeseed, sunflower, and sesame oil. Mineral oil is not recommended as a base oil. Essential oils should be diluted to make up 1–3% of a base oil solution, which is one to three drops of essential oil per teaspoon of base oil. For larger quantities, 20 to 60 drops can be added per 100 milliliters of base oil.

Only a few essential oils can be rubbed directly on the skin without dilution. These are lavender, tea tree oil, eucalyptus, and geranium, although people with sensitive skin should use them with care.

Allergic reactions are possible with essential oils. People with sensitive skin or allergies should perform a simple skin test when using essential oils for the first time. To do a skin test, one drop of essential oil can be added to a teaspoon of base oil, and a small amount of this solution can be rubbed on a sensitive spot on the skin, such as the soft side of the arm or behind the ear. If no irritation occurs after 24 hours, then the essential oil is non-allergenic.

Essential oils can be used in a variety of ways. They can be added to massage oils for therapeutic massages. Essential oil solutions can be used on the skin, scalp and hair as lotions, conditioners, and perfumes.

A few drops of essential oils can be added to bath water or used in the sauna. Essential oil diffusers, lamps, and candles are available which use heat and steam to spread (diffuse) the aroma of essential oils in rooms. Essential oils can be added to hot-and-cold compresses for injuries and aches.

Some essential oils, like tea tree, fennel, and peppermint oil, can be combined with a mixture of water and apple cider vinegar and used as mouthwash. For colds and congestion in the lungs or sinuses, essential oils can be inhaled by adding a few drops to a pot of boiling water, and covering the head with a towel over the pot and breathing the vapors.

Consumers should search for essential oils made by reputable manufacturers. Essential oils should be certified to be 100% pure, without chemical additives or synthetic fragrances. The highest quality oils are generally obtained from distillation and cold pressing methods.

Precautions

Essential oils should not be taken internally, by mouth, rectum or vagina, unless under medical supervision. Essential oils should be kept away from the eyes. If an essential oil gets into the eyes, they should be rinsed immediately with cold water. Essential oils should be used with care on broken or damaged skin.

Some essential oils have not been thoroughly tested and may be toxic. The oils to be avoided include arnica, bitter almond, calamus, cinnamon, clove, mugwort, sage, wintergreen, and wormwood. Pregnant women should avoid these and basil, fennel, marjoram, myrrh, oregano, star anise, and tarragon. In general, any essential oils that have not been tested or lack adequate information should be avoided.

Some essential oils may cause the skin to become photosensitive, or more sensitive to sunlight and more likely to become sunburned. Essential oils that are photosensitizing include bergamot, orange, lemon, lime, grapefruit, and angelica root. These oils should be avoided before exposure to sunlight and ultraviolet light such as in tanning beds. People with sun-related skin problems should avoid these oils.

Those with health conditions should use care with essential oils. Steam inhalation of essential oils is not recommended for asthma sufferers. The essential oils of rosemary, fennel and sage should be avoided by those with epilepsy.

Pregnant and nursing women should use caution with essential oils, because their skin and bodies are more sensitive and some oils may cause adverse reactions. Essential oils should not be used during the first three months of pregnancy, and after that they should only be used when heavily diluted with base oils. Women with histories of miscarriage should not use essential oils during pregnancy at all. Pregnant women should perform skin tests before using essential oils. Essential oils are not recommended for nursing mothers.

Essential oils should be used with care on children. They are not recommended for children under one year of age, and should be heavily diluted with base oils when used as a skin massage or lotion for children.

Essential oils should be stored out of the reach of children. Clean glass containers are the best storage vessels, and should be dark in color to keep sunlight from damaging the oil. Some essential oils can damage wood, varnish, plastic, and clothing, and should be handled with care.

Side Effects

Most readily available essential oils are safe if used in small doses, and side effects are generally rare. Possible side effects include rashes, itching, and irritation on the skin. Allergic reactions include watery eyes, sneezing, and inflammation. Some essential oils may cause nausea, dizziness, or gastrointestinal discomfort when used in excess or by those with allergic reactions. Some essential oils, particularly those derived from citrus fruit plants, can cause increased sensitivity to sunlight and increased risk of sunburn.

Interactions

Essential oils are not recommended for those taking homeopathic remedies, as essential oils are believed to interfere with their effectiveness. Essential oils are often blended together to enhance their healing effects, and mixtures can be tailored to individual preferences and conditions. Aromatherapists specialize in creating essential oil blends for individuals and health conditions.

Some of the essential oils we use in our skin care products, natural cleaning products and toothpowder:

y•lang-y•lang or i•lang-i•lang (ē'läng-ē'läng)

n.

1. A tropical Asian tree (*Cananga odorata*) having fragrant greenish-yellow flowers that yield an oil used in perfumery.
2. An oil or a perfume obtained from the flowers of this tree.

Ylang-Ylang
cananga odorata

Ylang-ylang is made into a soothing and sensual oil with a fresh, floral, sweet, slightly fruity and exotic fragrance. It is used for both oily and dry skin. It also may be used in the treatment of anxiety, depression, frigidity, hypertension, palpitations, and stress.

Safety Precautions: May cause sensitization, headaches and nausea if used in excess.

Ylang-ylang essential oil is used in aromatherapy. It is believed to relieve high blood pressure, normalize sebum secretion for skin problems, and considered to be an aphrodisiac.[citation needed] According to Margaret Mead, it was used as such by South Pacific natives such as the Solomons where she did much of her research.[citation needed] The oil from ylang-ylang is widely used in perfumery for oriental or floral themed perfumes. Ylang-ylang blends well with most floral, fruit and wood smells. In Indonesia, ylang-ylang flowers are spread on the bed of newlywed couples.

spear•mint (spîr'mînt')

n.

An aromatic Eurasian plant (*Mentha spicata*) having clusters of small purplish flowers and yielding an oil used widely as a flavoring.

Spearmint

Either of two vegetatively propagated, clonal cultivar species (*Mentha spicata* and *M. longifolia*) of mints of the family Lamiaceae (Labiatae). They are grown primarily in Idaho, Indiana, Michigan, Washington, and Wisconsin as a source of essential oil of spearmint.

Principal uses of the oil are in flavoring gum, toothpaste, and candy. Chopped fresh leaves of *M. spicata* preserved in vinegar are used as a condiment served with lamb, especially in England, and dried or freeze-dried leaves of several strains are used in flavoring soups, stews, tea, or sauces. Sprigs of the decorative curly mint *M. crispa* (or *M. spicata* var. *crispata*) are often used in mixed drinks such as mint juleps

Description

Spearmint, *Mentha spicata* (sometimes referred to as *M. viridis* and *M. crispa*), is a Mediterranean native known from ancient times as an herb of hospitality. In the symbolism of plants, spearmint conveys wisdom.

Common names for this aromatic herb include garden mint, lamb's mint, Our Lady's mint, spire mint, and sage of Bethlehem. The Romans brought mints to Britain, and English colonists brought spearmint and other mints to their settlements in North America.

Spearmint is one of at least thirty species in the extensive Lamiaceae, or mint, family. Only the members of the *Mentha* genus, however, are considered "true mints." Mints interbreed quite easily. There are hundreds of hybrids and varieties in this sprawling genus of aromatic herbs, and many have naturalized throughout North America.

A mint used in Chinese medicine is *M. arvensis*, commonly known as field mint or wild mint. The name in China for this highly variable species is bo he. This lilac-blossomed herb is used as a cooling remedy in the treatment of influenza, sore throat, inflammations of the eyes, and head colds. *M. arvensis* is widely prescribed by Chinese herbalists as a carminative (medication given to expel gas from the digestive tract) and stomachic (medication given to improve digestive functions). It is also effective in relieving some types of headache. In general, field mint is said to be helpful in stimulating movement of the qi or life energy that may become stagnated in the liver.

General Use

The various mint species have many common chemical properties and beneficial actions. The fresh or dried leaves and the volatile oil, extracted by steam distillation, are the medicinally useful parts. Spearmint is slightly less medicinally potent than peppermint (*M. piperita*), a popular and well-known hybrid of spearmint and water mint (*M. aquatica*). Spearmint is used similarly to peppermint in medicinal preparations. These mints are particularly beneficial in relieving digestive disorders, colic, and flatulence due to their carminative and antispasmodic actions, and may be helpful in the treatment of irritable bowel syndrome. Spearmint may also relieve motion sickness, hiccups, and nausea. The milder spearmint is a safe remedy when prepared as an infusion for children. Spearmint is diuretic and has been used to treat cases of suppressed or painful urination. It is high in vitamins A and C, and has been employed both to prevent and cure scurvy, to improve eyesight and reduce night blindness, and to bring a sparkle to dull eyes and a gloss to the hair. A vinegar decoction of spearmint applied as a hair rinse has been used to treat head sores. Spearmint is commonly used in culinary preparations to season meat, fish, and vegetable dishes. Mints are also used to flavor candy, toothpaste, antacid medicines, chewing gum, shaving cream, liqueurs, and even cigarettes. Spearmint is the preferred herb used to prepare the traditional drink of the American South, the mint julep.

Recent research indicates that spearmint may have useful antibacterial properties in addition to its traditional uses as a digestive aid. A group of Japanese researchers reported in 2001 that essential oil of spearmint showed significant bactericidal activity against such disease agents as *Staphylococcus aureus*, *Escherichia coli*, and *Helicobacter pylori*.

pep•per•mint (pěp'ər-mīnt')

n.

1. A plant, *Mentha piperita*, having small purple or white flowers and downy leaves that yield a pungent oil.
2. The oil from this plant or a preparation made from it, used as a flavoring.
3. A candy or lozenge flavored with this oil.

Peppermint

The mint species *Mentha piperita* (family Lamiaceae), a sterile interspecific hybrid believed to have occurred in nature from the hybridization of fertile *M. spicata*. Peppermint oil is obtained by steam distillation from the partially dried hay. The main uses of peppermint oil are to flavor chewing gum, confectionery products, toothpaste, mouthwash-es, medicines, and as a carminative in certain medical preparations for the alleviation of digestive disturbances.

Description

Peppermint (*Mentha piperita*) is an aromatic perennial plant that grows to a height of about 3 ft (1 m). It has light purple flowers and green leaves with serrated edges. Peppermint belongs to the Lamiaceae family and grows throughout North America, Asia, and Europe. There are more than 25 species of true mint grown throughout the world.

The plant is harvested when the oil content is highest. When ready for harvest, it is always collected in the morning, before noon sun reduces the leaf essential oil content. This generally takes place shortly before the plant blooms, which occurs in the summer (July through August) or during dry, sunny weather. The United States is responsible for producing 75% of the world's supply of peppermint.

Properties

Peppermint is a cooling, relaxing herb that contains properties that help ease inflamed tissues, calm muscle spasms or cramps, and inhibit bacteria and microorganisms. It also has pain-relieving and infection-preventing qualities.

The medicinal parts of peppermint are derived from the whole plant, and include a volatile oil, flavonoids, phenolic acids, and triterpenes. The plant is primarily cultivated for its oil, which is extracted from the leaves of the flowering plant. The essential oil contains the principal active ingredients of the plant: menthol, menthone, and menthyl acetate. Menthyl acetate is responsible for peppermint's minty aroma and flavor. Menthol, peppermint's main active ingredient, is found in the leaves and flowering tops of the plant. It provides the cool sensation of the herb.

Peppermint also contains vitamins A and C, magnesium, potassium, inositol, niacin, copper, iodine, silicon, iron, and sulfur.

The essential oil is a powerful antiseptic and is useful in treating bad breath and sore throats. It is also beneficial in preventing tooth decay and gum disease.

clove1 (klōv)

n.

1. An evergreen tree (*Syzygium aromaticum*) native to the Moluccas and widely cultivated in warm regions for its aromatic dried flower buds.
2. A flower bud of this plant, used whole or ground as a spice. Often used in the plural.

Clove

The unopened flower bud of a small, conical, symmetrical, evergreen tree, *Eugenia caryophyllata*, of the myrtle family (Myrtaceae). The cloves are picked by hand and dried. Cloves, one of the most important and useful spices, are strongly aromatic and have a pungent flavor. They are used as a culinary spice for flavoring pickles, ketchup, and sauces, in medicine, and for perfuming the breath and air. The essential oil distilled from cloves has even more uses. The chief clove-producing countries are Tanzania, Indonesia, Mauritius, and the West Indies. See also Myrtales.

Cloves were important in the earliest spice trade. With a strong aroma and hot and pungent taste, they are used to flavour many foods. Clove oil is sometimes used as a local anesthetic for toothaches. Eugenol, its principal ingredient, is used in germicides, perfumes, and mouthwashes, in the synthesis of vanillin, and as a sweetener or flavour intensifier. **It is often considered medicinal and antiseptic.**

lav•en•der (lāv'ən-dər)

n.

1. a. Any of various aromatic Old World plants of the genus *Lavandula*, especially *L. angustifolia*, having clusters of small purplish flowers that yield an oil used in perfumery.
b. The fragrant dried leaves, stems, and flowers of this plant.
2. A pale to light purple to very light or very pale violet.

General Use

Lavender is best known and loved for its fragrance. The herb has been used since ancient times in perfumery. As an aromatic plant, lavender lifts the spirits and chases melancholy. Taking just a few whiffs of this sweet-smelling herb is said to dispel dizziness. Traditionally, women in labor clutched sprigs of lavender to bring added courage and strength to the task of childbearing. A decoction of the flower may be used as a

feminine douche for leucorrhoea. The dried blossoms, sewn into sachets, may be used to repel moths and to scent clothing, or may be lit like incense to scent a room. Because of its fumigant properties, the herb was hung in the home to repel flies and mosquitoes, and strewn about to sanitize the floors. Lavender essential oil was a component of smelling salts in Victorian times.

The essential oil of certain lavender species has a sedative, antispasmodic, and tranquilizing effect. Lavender has been long valued as a headache remedy. It can be taken in a mild infusion, or can be rubbed on the temples, or sniffed like smelling salts to provide relief from headaches caused by stress. Lavender oil is antiseptic, and has been used as a topical disinfectant for wounds. In high doses, it can kill many common bacteria such as typhoid, diphtheria, streptococcus, and pneumococcus, according to some research.

The essential oil has also been used as a folk treatment for the bite of some venomous snakes. When used in hydrotherapy as part of an aromatic, Epsom salt bath, the essential oils of some species will soothe tired nerves and relieve the pain of neuralgia. They are also used topically on burns and have been shown to speed healing. It is also a fine addition to a foot bath for sore feet. Lavender essence makes a pleasant massage oil for kneading sore muscles and joints. Acting internally, lavender's chemical properties increase the flow of bile into the intestines, relieving indigestion. Its carminative properties help expel intestinal gas.

Lavender is an adjuvant and may be used in combination with other herbs to make a tonic cordial to strengthen the nervous system.

Resources

Books

Cooksley, Virginia Gennari. *Aromatherapy: A Lifetime Guide to Healing with Essential Oils*. Englewood Cliffs, New Jersey: Prentice Hall, 1996.

Lawless, Julia. *The Illustrated Encyclopedia of Essential Oils*. Rockport, Massachusetts: Element, 1995.

Wildwood, Chrissie. *The Encyclopedia of Aromatherapy*. Rochester, Vermont: Healing Arts Press, 1996.

Periodicals

Walsh, Nancy. "Tea Tree Oil for Infections." *Internal Medicine News* (July 1, 2002):16–21.

The Aromatic Thymes. 75 Lakeview Parkway, Barrington, Illinois 60010.

Organizations

American Alliance of Aromatherapy. P.O. Box 750428, Petaluma, California 94975. [Article by: Douglas Dupler; Teresa G. Odle]

[Encyclopedia of Alternative Medicine](#)