



# Essential Oils

A definitive guide to 42 essential oils, including descriptions of each oil's character, uses, therapeutic properties, psychological profile and safety information.



Susan Curtis



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This book is presented as a collection of natural products and as an aid in understanding their preparation and use. The book does not represent an endorsement or guarantee as to the efficacy of any product, or its preparation. The products are not intended in any way to replace or supersede medical consultation or treatment.

Neal's Yard Remedies have made every effort to test their products and the natural oils covered in this book. However, a patch test should be carried out before any skin product is used, in case of individual reaction.

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# Practicalities

Essential oils have been around for millennia, used by many different cultures in a variety of ways – as medicines, in ritual worship, and as cosmetics and perfumes. These are complex substances, each oil is made up of many components which combine to provide its unique physiological and psychological characteristic profile.

This first section starts with a look at the properties of essential oils, the methods by which they are extracted, stored and applied. It finishes with information on their safest and most effective uses.

# How do essential oils work?

The use of essential oils is an excellent example of a holistic approach to health. First because essential oils treat the whole person – body, mind and spirit. Second, while the oils may have a specific action on a specific disease process they will also support and strengthen the person to throw off the disease. Tea tree oil, for example, will have a direct anti-viral effect on the common cold virus and will also act as an immuno-stimulant, encouraging the body itself to fight the infection.

When choosing an essential oil, either for yourself or for someone else, it is important to consider the specific physical properties of the oil, along with its more profound characteristics. Look closely at the oils' physiological, psychological and spiritual properties, bearing in mind that each of these areas are active simultaneously in all individuals.

Choose an oil that seems to offer the greatest benefits on all levels. Pine oil, for example, is an excellent respiratory antiseptic and decongestant, useful for the treatment of bronchitis. In addition, it is stimulating and refreshing – particularly useful for general feelings of fatigue. The psychological profile of pine oil is suited to those who are emotionally closed and suffer feelings of guilt. Using pine oil will help to revive and refresh the body, dispersing rigidity and guilt, and allow sensitivity and openness to be better expressed.

## MIND AND BODY

An essential oil is composed of individual chemical constituents that in combination provide the oil with its physiological properties. Rosemary oil, for example, is known to have among its properties those of being antiseptic, antispasmodic, carminative and stimulating. These properties indicate that it will be useful for treating infections, period pains, flatulence and tiredness.

## SYNTHETICS

During the early part of this century, scientists believed that if the chemical constituents thought to be primarily responsible for certain properties were isolated, they could be concentrated and rendered even more effective. The constituent could then be synthesized, thus becoming much cheaper to produce than an essential oil. For example, thymol, a constituent of thyme oil, was used for many years as a disinfectant in hospitals and surgical wards. It is now

becoming more generally appreciated that an essential oil is a very complex combination of hundreds of different constituents and that many of these individual constituents work synergistically together. This means that the combination of constituents as found in an essential oil is more effective and more appropriate in use than an isolated constituent. It has now been discovered, for example, that thyme oil is effective against a much wider variety of pathogens than thymol (its main constituent) and, when used at normal aromatherapy dilutions, is much less likely to be an irritant when applied to the skin. Indeed, most essential oils are better tolerated than their isolated components, which tend to be very much more aggressive in action than a complete essential oil.

## TOXICITY

This is not to say that essential oils are not toxic – several that are safe to use externally are toxic when taken internally, for example, eucalyptus. Others are safe to use at normal dilutions but are likely to irritate the skin if not diluted before use. Some oils are so toxic they are not available, such as wintergreen. A user of essential oils needs to learn about them in order to employ them with confidence.

An interest in the chemistry of essential oils can be a very useful basis for understanding both the likely properties of an essential oil and any



*Pine, a powerful respiratory antiseptic and decongestant, also revives and refreshes*

potential toxicity it may have. In France, a system of using oils known as clinical aromatherapy has been developed. This is practised by doctors who have acquired a thorough understanding of the physiological properties of essential oils, and who are thus able to prescribe them internally for specific physical ailments.

While the physiological properties are very varied, there are several main areas of action for which essential oils have established their deserved reputation.

## ANTISEPTIC

The first of these is their antiseptic action. All essential oils are anti-bacterial, although each oil is effective against different pathogens. There have been hundreds of laboratory tests which have shown how just how effective essential oils can be against bacterial, viral, fungal and parasitic infection. Tea tree oil, for example, is effective against streptococcus, gonococcus, pneumococcus, candida albicans, trichomonas vaginalis, herpes simplex, wart virus and scabies, to name but a few.

# What are essential oils?

It is the essential oils within plants that give them their characteristic smell and flavour. When we smell the delightful fragrance of jasmine flowers in the early evening, open a cedarwood box and inhale its woody smell, or add the zest of a lemon to a drink, it is the essential oil that we are enjoying.

Any part of a plant may contain its essential oil – flowers, leaves, fruit, stems, wood, bark, seeds, resin, berries or roots. However, not all plants contain significant amounts of essential oils, and where this happens the purpose or function of those plants is not yet fully understood. It is thought that the oils' fragrance may attract or repel insects and

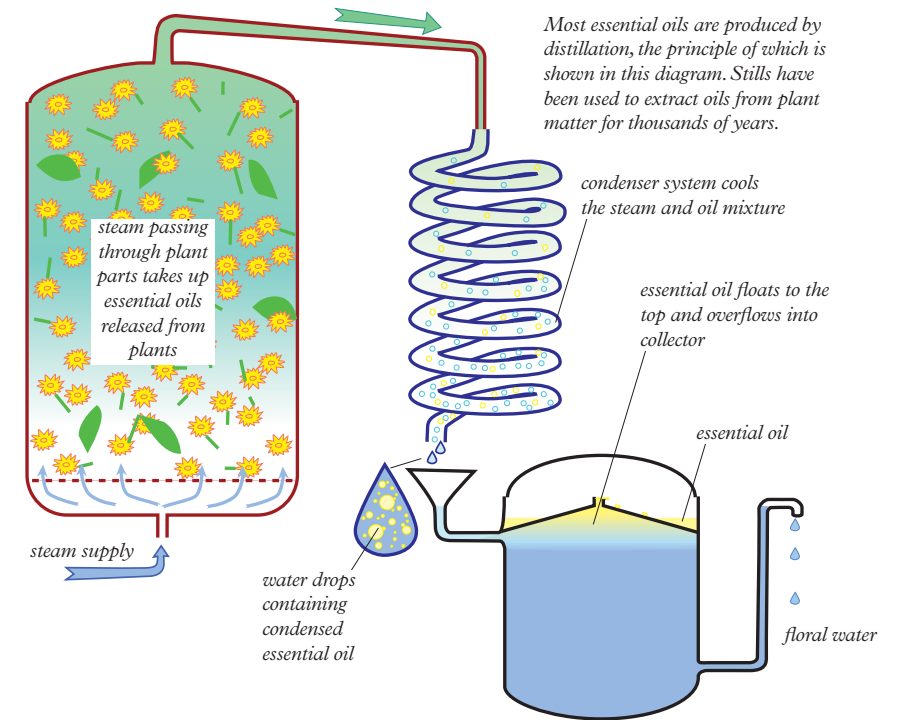
other animals. Essential oils also have anti-viral and anti-fungal properties for the plant and can be understood as part of the plant's immune system. Other functions of essential oils within plants may be as plant 'hormones' and as an internal transport system (as with blood in animals).

An essential oil may be extracted from the plant material by one of four different methods. These four methods are described below.

## DISTILLATION

Most of the essential oils that we use are produced by a process known as distillation. The plant material is placed in a container and boiling water or steam from a boiler is passed through the plant matter and then forced into an outlet pipe that carries away the vapours produced. The vapour passes through a pipe which runs through a jacket of flowing cold water (the condenser) and then drips into a second vessel that acts as a receiver for the condensed liquid.

During this process the boiling water



or steam softens the tissues of the plant material and causes the release of the essential oil. This vapourizes and passes along with the steam through the vapour pipe, then both vapours condense to liquid in the area of the condenser. The mixture of liquid essential oil and water then flows into the receiving vessel. Oil and water have different densities, so once they are in the receiving vessel they separate. The essential oil rises to the top, where it is drawn off, filtered and poured into containers ready for dispatch.

## WATER DISTILLATION

Some essential oils are partially soluble in the distillation water, and in these cases the water may be recovered to use as a 'flower water' or distillate – rose-water

and orange-flower water are obtained in this way.

Some essential oils are contained within hard, dense plant tissues, and this material has to be broken up or powdered before the essential oil can be released during distillation. Cedarwood, for example, is distilled from wood chips and sawdust collected from the sawmills where the wood has been cut for timber.

Stills used for essential oil production may be relatively small, such as those moved around the lavender fields in France on a trailer, or massive commercial machinery housed in large industrial buildings. Some ancient stills were made of terracotta; modern stills are usually stainless steel.



# Using essential oils

Essential oils have been used for cosmetic, perfumery and therapeutic purposes for thousands of years. They are an invaluable part of the food and flavouring industry and in more recent years have also been incorporated into a wide range of commercial household and pharmaceutical products.

Peppermint oil, for example, is used in confectionery, drinks, washing-up liquid, air fresheners, toothpaste, shaving foam and indigestion tablets, to name but a few everyday commodities in which it appears.

Aromatherapy as we know it today was developed during the twentieth century, originally by a small number of researchers investigating the antiseptic properties of essential oils. These became particularly important during the First World War, when certain oils were widely used to treat trench foot and infected wounds. One of these researchers was the Frenchman René-Maurice Gattefossé, who became the first person to use the word 'aromatherapie'.

In the 1960s aromatherapy was

introduced to Britain by a remarkable woman called Marguerite Maury. In France, Maury developed a system of aromatherapy that utilized both the medicinal properties of essential oils and their ability to rejuvenate the skin and maintain youth. She then set up a clinic in England and began to teach her system to beauty therapists, who became the first generation of holistic aromatherapists in Europe.

## HOW OILS ENTER THE BODY

One of the areas that aromatherapists have researched is how essential oils are absorbed into the body. Gattefossé discovered that it takes between 30 minutes and 12 hours for an essential oil to be absorbed into the various systems of the body after massaging on to the skin. Since then, tests have shown that essential oil molecules can be detected in urine an hour after rubbing the oil on to the back of the hand. A simple test that you can do yourself is

*Peppermint essential oil is used in a wide variety of commercial products, including drinks, indigestion tablets and toothpaste*

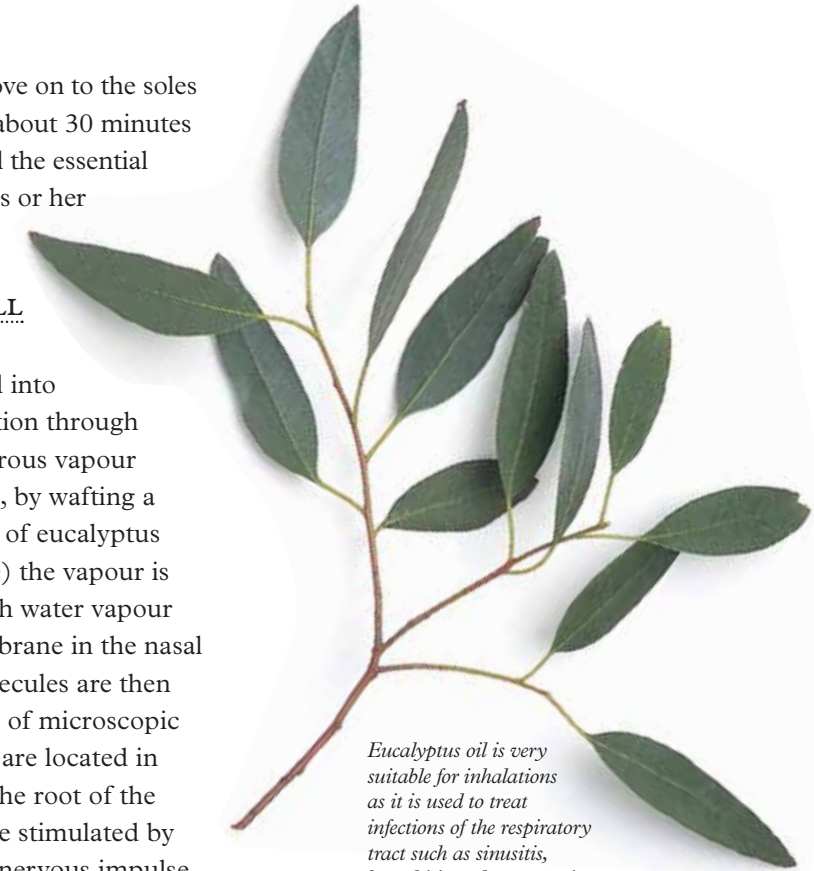


to rub a sliced garlic clove on to the soles of a friend's foot; after about 30 minutes you will be able to smell the essential oil from the garlic on his or her breath.

## OUR SENSE OF SMELL

The quickest way of drawing an essential oil into the system is by inhalation through the nose. When an odorous vapour is inhaled (for example, by wafting a tissue with a few drops of eucalyptus oil on it under the nose) the vapour is warmed and mixed with water vapour from the mucous membrane in the nasal cavity. The vapour molecules are then diffused over hundreds of microscopic hairs called cilia which are located in the olfactory organ at the root of the nose. Particular cilia are stimulated by different odours and a nervous impulse is sent to the adjacent olfactory bulb and then straight to the hypothalamus and limbic portions of the brain. (This part of the brain is the seat of the emotions, which explains why certain smells affect our moods and stir our memories so profoundly.) Neurochemicals are released which are passed on, via the nervous system, to the rest of the body.

Inhaled essential oils will also pass into the lungs and to the microscopic alveoli, where gaseous exchange with the blood takes place. The circulation then transports the oils around the rest of the body.



*Eucalyptus oil is very suitable for inhalations as it is used to treat infections of the respiratory tract such as sinusitis, bronchitis and pneumonia*

## ABSORBING OILS VIA THE SKIN

There are a number of ways in which you can apply essential oils to the skin. Essential oil molecules are minute and penetrate the skin by diffusing through the hair follicles and sweat glands. They also permeate between the skin cells by combining with the skin's lipids (fats) and thereby enter the dermis (the layer of skin beneath the epidermis). Once in the dermis they can enter the blood capillaries and lymph vessels, which then transport them around the rest of the body by the circulatory systems.

Exactly how much of an essential oil applied to the skin is absorbed into the body is variable and depends on the oil being used, the type of carrier (oil or water), on the temperature of the surrounding air and of the oil itself (warmth increases absorption of oils).

One of the main functions of the skin is as an organ of protection for the body, and this makes it particularly suitable as a route for the intake of essential oils, because the skin contains enzymes that can break down or inactivate several of the more potentially toxic constituents of the oils. (There is no such protective system when the oils are taken internally – see right.) The layers of the skin also act as a kind of reservoir for essential oils, which are then ‘time-released’ into the circulatory system. This means that essential oils are released into the body more slowly via the skin than if they are taken internally.

### TAKING OILS INTERNALLY

Taking essential oils internally can be extremely effective in the treatment of certain diseases, but they should only be used in this way if prescribed by qualified practitioners who are specifically trained in the oral administration of essential oils. The same is true for rectal administration and vaginal douches: the mucous membranes of these areas are so delicate that these methods of application should be supervised by experienced practitioners.

When taken internally, essential oils are absorbed through the gastrointestinal tract straight into the bloodstream and thence to the liver, in some cases causing liver failure. Oral administration of essential oils means that the entire dose is released into the system at once. One result of this is that any toxicity is most hazardous if the oil is taken internally – there is also the risk of irritation and damage to the lining of the gastrointestinal tract.

### HOW TO APPLY ESSENTIAL OILS

Most essential oils should be diluted before applying them to the skin, see page 128, though there are a few exceptions. Lavender, jasmine, neroli, sandalwood and rose can generally be used neat as a perfume, and some wonderful blends can be made using these oils. Lavender and tea tree can be applied neat locally as a remedy for insect bites, minor burns and so forth or to disinfect wounds.



## Methods of use



### Massage

Massage is one of the most popular ways of using essential oils and is the method favoured by professional aromatherapists. With an aromatherapy massage you get the benefit of the massage itself as well as the benefits of the essential oils. Massaging a blended oil into your own skin can be very beneficial too, and may easily be made part of a daily skin and health care routine.

To create a massage oil you will need to dilute the essential oils into a carrier or base oil (see page 128). A therapeutic massage oil usually contains 1–3% of essential oil to base oil. For practical purposes, it is assumed that there are just over 20 drops of essential oil to 1 ml. This means that to 100 ml / 3½ fl oz / scant ½ cup of carrier oil, 20–60 drops of essential oil (or combined oils) are added. If you make up enough massage oil to last for several applications, store it in a dark-coloured glass bottle and use it within 6–12 months. A lotion base may be used as a carrier.

To make enough for just one massage, pour about 10 ml / 2 tsp of carrier on to a saucer and add 4–6 drops in total of your chosen essential oils, mix well. For other needs the dilutions table on page 26 may help.

There are many massage courses available that will help you to learn the different techniques of massage. If you practise first on yourself, and then on a friend or partner, you will become more confident about using your hands, and discovering what is pleasurable and beneficial. It is important for the recipient to feel warm and comfortable during a massage, and you should ensure that your hands are warm before touching the skin. Concentrate on any areas that are causing discomfort – for example, rub the oil into the abdomen to relieve period pains or colic. Covering the skin with a towel after the massage helps to keep the recipient warm and encourages absorption of the essential oils.

For some suggested massage blends, see page 133–7.



# The Oils

This section contains profiles of the main essential oils used in aromatherapy. Each profile contains information on the origin of the essential oil and its traditional or historical uses, with the method of extraction and a description of the oil. Each essential oil is different, with its own characteristic combination of properties, both therapeutic and psychological. These are described, with details of how the oil may be used to treat ailments or simply to improve overall health and well-being. Important information about safety is also included.



# Basil

*Ocimum basilicum*  
Family: *Lamiaceae (Labiatae)*



There are many varieties of the herb basil growing throughout the world, and all have a long tradition of use in cooking and as a herbal medicine. In Ayurvedic medicine basil is an important treatment for respiratory problems and also as an antidote to poisonous snake bites. In Western herbal medicine it is used as a cooling herb and nerve tonic. Essential oil production occurs mainly in France, Egypt, eastern Europe and the USA.

## KEY ACTIONS

Energising, restorative.

## METHODS OF USE

Massage, bath, compress, room fragrancng, inhalation.

## TOP REASONS FOR USE

Nervous debility, mental fatigue, loss of sense of smell, catarrh.

## COMBINES WELL WITH

Bergamot, chamomile, clary sage, geranium, lavender, lemongrass, marjoram and rose.

## DESCRIPTION

The oil has a sweet, spicy, green and slightly balsamic odour and is colourless or a pale yellow.

## THERAPEUTIC PROPERTIES

Basil is a very useful essential oil but there is concern about possible toxicity when using it for prolonged periods of time, so use it in moderation and only for short periods – up to three weeks, and avoid during pregnancy.

## NERVOUS SYSTEM

The main action of basil oil is on the nervous system – it is an excellent nerve tonic and has a balancing, reviving and strengthening effect. Being a balancing oil, it is both relaxing and uplifting, with an overall restorative result. It can be used to relieve brain fatigue, nervousness, anxiety, depression, tension headaches and nervous insomnia.

## SEXUAL HEALTH

Where sexual problems are the result of tension, debility and overwork, the tonifying and restorative action of basil

can be of help. Use in a massage, in the bath or by burning in the room. Basil can be used to treat absent or very scanty periods, especially when this is due to debility and stress. The anti-spasmodic properties of basil make it useful to treat menstrual cramp; dilute the oil and massage over the abdomen.

## DIGESTION

Basil also has a beneficial action on the digestive system, particularly the small intestine. It helps relieve flatulence and is especially good where digestive disorders are the result of nervous tension, such as nervous indigestion. The antiseptic and antispasmodic properties of basil make it useful for treating gastro-enteritis and other intestinal infections. Dilute in a base oil and massage over the abdomen.

## COUGHS & COLDS

Basil can be used to treat spasmodic respiratory conditions such as coughs. It is also said to help restore the sense of smell – use in a steam inhalation. Basil oil is useful for debility following a prolonged fever or for lingering colds and catarrh.

## ACHES & PAINS

Basil may be used to treat muscular weakness and muscular aches and pains. Use as a rubbing oil or compress. Basil oil can also be used in the treatment of gout and rheumatism.

## STINGS & BITES

In first-aid treatment basil may be used to relieve wasp stings and insect bites. It also acts as a successful insect repellent.

## PSYCHOLOGICAL PROFILE

Basil is appropriate if you have worn yourself out by overwork, particularly by mental effort or in a high-stress working environment. People who need basil have pushed themselves to the point where they are exhausted and their nervous system is over-wrought. Basil will help to strengthen and calm you.

## OTHER VARIETIES

Of the many varieties of basil, only two chemotypes are generally used to produce essential oil – French basil and exotic basil. Of these, French basil is preferable as it is less toxic and less likely to cause sensitization and irritation than the exotic type.



## METHOD OF EXTRACTION

The oil is produced by steam distillation of the flowering herb.

## MAIN CONSTITUENTS

Alcohols (alpha terpineol, linalool), phenols (eugenol), monoterpenes.

## SAFETY

Possible carcinogenic components – use sparingly & for less than 20 days. Do not use in concentrations over 2%. Avoid during pregnancy.

# Bergamot

*Citrus bergamia*  
Family: Rutaceae

The bergamot orange is a species similar to the bitter orange. Production of the essential oil started during the early eighteenth century in Italy, and since then bergamot oil has become one of the most important perfume materials. It is the main constituent of eau de cologne as well as being used in lotions, creams, perfumes, sweets and soaps. It is bergamot oil that gives Earl Grey tea its distinctive flavour.

antiseptic properties of the oil can help in treating gastroenteritis and other gastric infections – massage it over the abdomen.

It has a special affinity for the mouth and throat and is traditionally employed in the treatment of cold sores, sore throats, mouth ulcers and bad breath.

## URINARY

Bergamot oil alleviates genito-urinary infections where there is burning and inflammation – use it in the bath or as a douche.

## SKIN

Bergamot is widely used in the treatment of skin conditions for its antiseptic, healing and deodorizing properties and is recommended for the treatment of acne, herpes, psoriasis and seborrhoea of the scalp.

## ANTISEPTIC

In Italy, bergamot is used for treating fevers as it is cooling and antiseptic. In first aid, bergamot is used as an antiseptic in the treatment of wounds and ulcers. It will act as a parasiticide for eliminating scabies. It also makes a deodorizing and refreshing room spray.



## PSYCHOLOGICAL PROFILE

Bergamot is an appropriate oil if you are the type of person who pursues goals with a determination to succeed at any cost. It is cooling and refreshing for the cross, critical, exacting person who begins to suffer from digestive and skin problems, and whose nerves become edgy and raw.

## KEY ACTIONS

Relaxing, uplifting.

## METHODS OF USE

Massage, bath, compress, inhalation, room fragancing, saunas.

## TOP REASONS FOR USE

Tonic for the nervous system, cooling & refreshing, cystitis, indigestion, wounds & ulcers.

## COMBINES WELL WITH

Coriander, cypress, geranium, juniper, lavender, melissa, neroli, pine and rosemary.

## DESCRIPTION

Bergamot oil is a light yellow or pale green liquid with an extremely rich, sweet, green and fruity smell.

## THERAPEUTIC PROPERTIES

Bergamot is a cooling and refreshing oil. It makes a pleasant, fragrant addition to many massage and bath oil blends.

## NERVOUS SYSTEM

Its main action is on the nervous system, where it acts as a tonic, and is invigorating without being over-stimulating. It is useful for tension headaches. Its soothing, cooling and refreshing properties help during times of stress, when you are feeling cross, irritable and overwrought or when tension makes you feel hot and sweaty. It blends well with melissa and rosemary to clear the mind.

## DIGESTION

Bergamot has carminative and anti-spasmodic properties which makes it useful for problems of the digestive system; especially where there is colic, painful wind and indigestion. The

## METHOD OF EXTRACTION

Bergamot oil is produced by rasping the peel and collecting everything that is expressed from it. This is then clarified and filtered.

## MAIN CONSTITUENTS

Esters (linalyl acetate), aldehydes, sesquiterpenes, lactones, coumarins.

## SAFETY

Phototoxicity: Use a bergapten-free bergamot (like Neal's Yard Remedies), or avoid concentrations above 0.5% if going into sunlight within 12 hours.