

Module 1

Course Manual

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Instructions for Module 1

Please take some time to read through this module and then answer the questions in the Module 1 workbook.

Once you have completed the workbook please email it to me for marking to:

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I recommend that you also carry out some background reading to support your learning during this module to help you answer the questions in the workbook.

Main topics covered by Module 1:

- Recommended Reading List
- History, philosophy and role of Aromatherapy and other massage traditions.
- Methods of Extracting Essential Oils
- Properties of Essential Oils
- Essential Oil profiles
 - Jasmine
 - Lavender
 - Mandarin
 - Peppermint
 - Rosemary
 - Ylang Ylang

Recommended Reading List

Essential Oils Desk Reference (Fourth Edition) compiled by Essential Science Publishing
ISBN 0-943685-49-4 (Essential Science Publishing, 2009)

Aromatherapy – Therapy Basics (Second Edition) by Helen McGuinness
ISBN 10 0 340 876808 (Hodder Arnold, 2003)

Aromatherapy for Holistic Therapists by Colin Padden
ISBN 978 0 9820318 0 3 (Airmid Holistic Books, 2008)

The Encyclopedia of Essential Oils by Julia Lawless
ISBN 13 978 0 00 714518 8 (Thorsons 1992)

The Complete Illustrated Guide to Aromatherapy by Julia Lawless
ISBN 1 85230 987 3 (Element, 1999)

Aromatherapy – A Practical Approach by Vicki Pitman
ISBN 0 7487 7346 0 (Nelson Thornes, 2004)

Aromatherapy an A-Z by Patricia Davis
ISBN 0 85207 295 3 (The C.W. Daniel Company Ltd, 1999, new edition 2005)

The Fragrant Pharmacy – A Complete Guide to Aromatherapy & Essential Oils by Valerie Ann Worwood
ISBN 0 553 40397 4 (Bantam Books, 1991, new edition 1997)

The Complete Book of Essential Oils and Aromatherapy: Over 600 Natural, Non-toxic and Fragrant Recipes to Create Health, Beauty and a Safe Home by Valerie Ann Worwood
ISBN 0 931432 82 0 (New World Library, 1991)

Aromatherapy for Women by Maggie Tisserand
ISBN 0 7225 2260 6 (Thorsons, 1999)

The Art of Aromatherapy by Robert Tisserand (1997)

Aromatherapy for Holistic Therapists by Francesca Gould
(Nelson Thornes, 2003)

Aromatherapy for Health Professionals (3rd Edition) by Shirley Price &
Len Price
ISBN 10 0 443 10134 5 (Churchill Livingstone, Elsevier Ltd, 2007)

Aromatherapy for Common Ailments by Shirley Price (2000)

The Complete Guide to Aromatherapy (2nd Edition) by Salvatore
Battaglia (2004)

Aromatherapy During Your Pregnancy by Francis R. Clifford
ISBN 0 85207 312 7 (The C.W Daniel Company Ltd, 1997)

Aromatherapy – A Guide for Home Use by Christine Westwood
ISBN 0 9517 7230 9 (Amberwood Publishing Ltd, 1991)

Aromatherapy for Healthy Legs and Feet – A Guide for Home Use by
Christine Westwood
ISBN 1 8993 0802 4 (Amberwood Publishing Ltd, 1995)

Essential Chemistry for Safe Aromatherapy by Sue Clarke
ISBN 0 443 06485 7 (Elsevier Ltd, 2005)

Holistic Aromatherapy for Animals by Kristen Leigh Bell
ISBN 978-1-899171-59-0 (Findhorn Press, 2002)

Anatomy and Physiology for Holistic Therapists by Francesca Gould
ISBN 0 7487 9356 9 (Nelson Thornes, 2005)

Anatomy & Physiology for beauty and complementary therapies by
Ruth Hull
ISBN 978 0 9559011 1 9 (The write idea, 2009)

**Anatomy & Physiology for beauty and complementary therapies
Workbook** by Ruth Hull
ISBN 978 0 9559011 2 6 (The write idea, 2009)

Start and Run a Successful Complementary Therapy Business by Jackie
James

ISBN 978 1 84528 459 6 (Howtobooks)

Complete Pathology for Complementary Therapies
Essential Training

History, philosophy and role of Aromatherapy and other massage traditions.

It was the Egyptians who were the first to distil plants in order to extract their essential oils. They used them for medicinal purposes, in religious ceremonies, to beautify the skin, in facial tonics and as perfumes. References in the Bible also show the use of plants and their oils for the treatment of illness and for religious purposes.

Although aromatherapy is based on more than 6000 years of knowledge it was not until the late 1970s that the term 'aromatherapy' became known outside France. It was the first time that the aroma (the scent or smell of a substance) was linked with healing.

In the 1920s a French chemist, René Gattefossé, who owned a perfumery business, burned his hand. He plunged his hand into the closest thing available - a vat of lavender oil - and found that his hand healed quickly. This began a lifelong interest in distinguishing the use of specific plant extracts, essential oils, for therapeutic or medicinal aims as opposed to just materials for perfume manufacture. His work showed that it was possible for essential oils to penetrate the skin and be carried through the blood and lymph systems. Many French doctors continued his work, the most notable one being Dr Jean Valnet who used essential oils to treat battle injuries.

The earliest record of using aromatic oils in England was in the 13th Century. Later, following the invention of printing, many herbal books, including recipes for making essential oils, were produced. It is a fact that the people who used aromatic oils during the Great Plague of 1665 survived it because of the oils' antiseptic properties.

The term 'aromatherapy' was introduced to Britain in the 1950s by Marguerite Maury who was a student of Gattefossé. She applied aromatherapy with massage, developing specialised massage techniques along with the practice of individual consultation. She devised a more holistic approach where essential oils are chosen according to the physical and emotional needs of the client.

Aromatherapy is therefore the holistic art and science of choosing, blending and applying essential oils that have been extracted from

plants to improve physical, emotional, spiritual and mental well-being. It recognises the importance of the whole essence extracted from the plant not an essence that has been adulterated.

Essential oils are aromatic volatile liquids distilled from shrubs, flowers, trees, roots, bushes and seeds. The chemistry of essential oils is very complex each one may consist of hundreds of different and unique chemical compounds. Essential oils are highly concentrated and far more potent than dried herbs. It is the distillation process that makes essential oils so concentrated and it often requires an entire plant or more to produce a single drop of distilled essential oil.

Using essential oils for therapeutic treatment follows three different models: English, French and German.

The English model advocates diluting a small amount of essential oil in a vegetable oil and massaging the body for the purpose of relaxation and relieving stress.

The French model prescribes the ingestion and neat (undiluted) topical application of therapeutic-grade essential oils. A few drops are added to honey on a piece of bread or small amount of vegetable oil. Many French practitioners have found that taking oils internally yields excellent benefits.

The German model focuses on inhalation of essential oils. Research has shown that the effect of fragrance and aromatic compounds on the sense of smell can exert strong effects on the brain – especially on the hypothalamus (the hormone command centre) and the limbic system (the seat of emotions). Essential oils that are high in sesqui-terpenes, such as myrrh, sandalwood and frankincense, can dramatically increase oxygenation and activity in the brain. This may directly improve the function of many systems of the body.

So, all three models working together show how versatile and powerful essential oils can be.

The Physical Benefits

Essential oils are made up of very small aromatic molecules. They are so small – this is why we smell them, as they are light, volatile, and easily

disperse, which means they can bring their unique properties of healing quickly to every cell of the body.

Traditionally aromatherapy was used to ease muscular aches and pains, circulation and sinus congestion. Aromatherapy essential oils also have a positive effect through the skin, penetrating into the deeper layers encouraging the process of cellular renewal, enhancing the blood circulation and helping to deal with problems such as acne, eczema and ageing skin.

The Emotional Benefits

Our sense of smell is the most primitive of our senses, linked to the areas of the brain governing instinct, memory and emotion. Through the pathways to the deep centres of the brain, aromatherapy and essential oils can have a dynamic effect on our emotional state. They can help us reconnect with our positive moods transforming us from one state of mind to another.

Aromatherapy Massage Treatments

The traditional principles of aromatherapy and essential oils, (supported by much evidence of ancient medicinal practice), use massage techniques as the main form of aromatherapy treatment. Either eastern or western massage techniques can stimulate the nervous system to ease congestion and re-balance a body affected by physical or emotional stress. Concurrently, essential oils are applied and absorbed into the bloodstream stimulating cell renewal, circulation and detoxification, while their aromas act on the deepest parts of the brain to positively affect mood and emotions.

Other massage traditions

Massage is thought to be the oldest form of medical therapy practised on the human body. The different types of massage and the various techniques that encompass them stem from our most celebrated civilizations and their traditional beliefs, namely ancient Greece and Rome, ancient India and China.

Dating as far back as 2,700 B.C., ancient Eastern Chinese cultures practised massage to heal a variety of ailments from labour pain to paralysis. Ancient Egyptian tombs have been discovered adorned with images of figures being massaged. In addition, according to traditional Indian medicine, a system known as Ayurveda (a therapeutic massage)

was performed using a variety of aromatherapy oils and spices known for their healing properties. Even Greek and Roman heroes - such as the great Julius Caesar - underwent daily massages to treat nerve pain.

In Western culture the most practised form of massage is undoubtedly Swedish massage. First introduced in the 19th century, Swedish masseuses are thought to have borrowed many of their techniques from traditional Chinese, Egyptian, Greek, and Roman masseuses. A variety of the most effective massage techniques have also been incorporated into other complementary therapies - aromatherapy, Reiki, reflexology, Rolfing, Amma therapy and osteopathy.

Many of our now popular modern massage techniques were created in order to heal specific health conditions. For example, soldiers who fought in World War I were given massage for nerve damage and to soothe shell shock in western hospitals during the 1930s.

Massage is still used today for treating a wide range of ages from babies to seniors - in a variety of intensive care, health club, and health clinic and hospital settings. To this day, massage is still used to treat various conditions such as premature birth, various types of cancer, AIDS, osteoarthritis, lumbar back pain, nerve damage, fibromyalgia, paralysis, heart attack, and stroke.

Examples of other massage traditions are:

- Acupressure
- Swedish Massage
- Physiotherapy
- Indian Head Massage
- Infant and Child Massage
- Lymphatic Drainage Massage
- Thai Massage
- Japanese Shiatsu

- Stone Therapy
- Neuromuscular Techniques

Therapeutic Actions/Properties of Essential Oils

When using essential oils we are working at two ends of a scale. At one end we are dealing with the therapeutic action on a purely physical scale and at the other end we are dealing with the emotional, aesthetic or energetic response. So following is a list of descriptions of the therapeutic actions of essential oils. I have not listed every single action/property description so when you read a new description in your research then add it to your list.

Abortifacient:

Causes or induces abortion

Antidepressant:

Stimulates or lifts mood

Adaptogen:

Helps the body to adapt especially to stress

Antiemetic:

Arrests vomiting, counters nausea

Alterative:

Blood purifying, usually by acting on the liver, kidneys or lymph

Antifungal:

Destroys or inhibits fungal growths and infections

Anabolic:

Promotes tissue growth

Antigalactagogue:

Inhibits formation or flow of breast milk

Anaesthetic:

Numbs perception of external sensation

Antihypertensive:

Reduces high blood pressure

Analgesic:

Alleviates pain without loss of consciousness

Antilithic:

Prevents/destroys kidney or bladder stones

Anaphrodisiac:

Inhibits libido, reduces sexual desire

Antimicrobial:

Destroys or suppresses the growth of micro-organisms

Androgenic:

Produces masculine qualities/characteristics similar to testosterone

Anti-inflammatory

Counteracts or suppresses inflammation

Antacid:

Counters acidity, particularly excess acid in the stomach

Antineuralgic:

Relieves paroxysmal (sharp/recurring) nerve pain

Antiallergenic:

Counters an allergic reaction

Antioxidant:

Inhibits oxidative damage to cell walls

Anodyne:

Helps to ease pain/discomfort

Antiperiodic:

Prevents the return of recurrent fevers or disease

Anthelmintic:

Destroys and/or expels parasitic worms

Antiarrhythmic:

Prevents or alleviates arrhythmia (abnormal heart rhythm)

Antibiotic

Inhibits or destroys micro-organisms

Anticoagulant:

Prevents or hinders clotting especially of blood

Anticonvulsive:

Controls convulsions

Antitussive:

Relieves/prevents coughing

Antisclerotic:

Prevents hardening of tissue due to chronic inflammation

Antiseptic:

Prevents/impedes growth or micro-organisms that cause infection

Antispasmodic:

Relieves/prevents muscles spasms or convulsions

Antisudorific:

Reduces sweating

Antiviral:

Destroys or inhibits growth of viruses

Antiscorbutic:

Prevents scurvy

Antithrombotic:

Prevents thrombosis

Antiphlogistic:

Counteracts pain, inflammation and fever

Antiplatelet:

Inhibits aggregation (clotting) of blood platelets

Antipruritic:

Relieves itching

Antipyretic:

Prevents or allays fever

Antirheumatic:

Suppresses/alleviates rheumatic disease

Cholagogue:

Stimulates the flow of bile, especially as a result of contracting the gall bladder

Choleretic:

Promotes bile secretion by the liver

Cephalic:

Acting on the disorders of the head

Cicatrisant:

Promotes healing of wounds by formation of scar tissue

Cytophylactic:

Encouraging growth of leucocytes cells which defend against infection

Decongestant:

Relieves mucous congestion in the upper respiratory tract

Depurative:

Purifying/detoxifying agent especially of the blood

Detoxifying:

Helps to cleanse the body of toxins e.g. narcotics

Aperitif:

Encourages appetite, promotes digestion

Aphrodisiac:

Increases libido, promotes health of glands and reproductive organs

Astringent:

Causes contraction of tissue/skin and reduces fluid loss (e.g. serum or mucous)

Bactericidal:

Destroys bacteria

Bechic:

Stops/eases coughing

Cardiotonic:

Improves heart tone

Carminative:

Expels gas from stomach or intestines, relieves flatulence/abdominal pain/distension

Cathartic:

Purgative, promotes evacuation of the bowels

Emmenagogue:

Promotes menstrual flow/discharge

Emollient:

Softens or soothes normally the skin

Escharotic:

Corrosive or caustic, used to treat warts and skin cancers

Expectorant:

Promotes discharge/expulsion of mucus (phlegm) from the respiratory tract chiefly by coughing

Febrifuge:

Reduces fever

Deodorant:

Eliminates or masks unpleasant odours e.g. that are produced by sweating

Demulcent:

Coats, soothes, protects surfaces e.g. of the throat or other parts of the alimentary canal

Deobstruent:

Removes obstructions e.g. of the bowels

Diaphoretic:

Promotes sweating/perspiration

Diuretic:

Promotes excretion/flow of urine

Digestive:

Aids digestion

Disinfectant:

Destroys germs

Emetic:

Causes vomiting

Immunostimulant:

Stimulates an immune response

Insecticide:

Destroys insects

Laxative:

Stimulates movement of the bowels

Leucocytosis:

Increasing the activity or numbers of leucocytes, the white blood cells which fight infection

Mucolytic:

Breaks down mucus/catarrh

Fungicidal

Kills or inhibits the growth of fungi

Mydriatic:

Dilates the pupils

Galactagogue:

Promotes secretion and flow of milk (also referred to as lactagogue)

Myotic:

Contracts the pupils

Haemostatic:

Checks bleeding, shortens the clotting time of blood

Narcotic:

Dulls the senses, relieves pain and induces drowsiness/sleep

Hallucinogenic:

Produces hallucinations or visions, distorts perception of reality

Nervine:

Soothes nervous excitement

Hepatoprotective:

Protects the liver

Nutritive:

Nourishing

Hypertensive:

Increases blood pressure

Oestrogenic:

Having qualities similar to the 'female' sex hormone oestrogen

Hypoglycaemic:

Low in blood sugar, hence an oil that helps lower blood sugar levels

Orexigenic:

Appetite stimulant

Hypotensive:

Reduces blood pressure

Oxytocic:

Induces contractions of the uterus

Hypnotic:

Induces sleep/drowsiness or reduces psychological excitement or anxiety

Parasiticide:

Destroys parasites

Immunomodulator:

Alters/suppresses or strengthens the immune system (usually strengthens)

Parturient:

Aids labour and childbirth by stimulating uterine contractions

Prophylactic:

Prevents disease, many essential oils have this property

Styptic:

Stops bleeding (when applied topically)

Purgative:

Strong/drastring laxative effect

Sudoriphic:

Promotes sweating, stimulates circulation to the exterior

Restorative:

Restoring vitality, health and spirits

Tonic:

Strengthens the body in general, has restorative or nourishing action

Rubefacient:

Produces redness by stimulation blood flow to the skin

Uterotonic:

Tones uterine muscles

Refrigerant:

An agent that allays fever or its symptoms

Vasoconstrictor:

Contracts/narrows small blood vessels

Sedative:

Reduces nervous excitement

Vasodilator:

Expands/widens small blood vessels

Splenetic:

Tonic or strengthening to the spleen

Vermifuge:

Expels intestinal worms

Spasmolytic:

Relieve spasm/convulsions

Vulnerary:

Promotes wound healing

Sternutatory:

Induces sneezing

Stomachic:

A stimulant or tonic of the stomach

Stimulant:

Increases activity/energy levels

Methods of Extracting Essential Oils

Traditionally, essential oils have been extracted by small-scale artisan distillers who are highly committed to their work and produce the best quality oils. In Europe, for native and naturalised species of plants, extraction can take place close to where they are grown which is important for retaining the quality of the leaves and flowers. On the other hand seeds roots and bark are materials that can cope with some storage time and so can be grown elsewhere and brought to Europe for extraction. However, some essential oils from these sources are extracted in their countries of origin

The food-flavouring and perfume/cosmetic industries do not require complete extraction of the whole oil and as there is an addition of synthetic compounds. This partial distillation and addition of synthetic compounds is acceptable in those industries but is not acceptable in the case of essential oils and aromatherapy. For aromatherapy, the aim of extraction is to obtain the whole essential oil so that it is as 'close to nature' as possible because it is important to produce the most therapeutic essential oils of the highest quality. Fortunately, with the growth of demand by highly qualified aromatherapists, it has been possible to support such producers and genuine, authentic therapeutic-quality oils are available.

As essential oils are extracted from plants, their quality can vary according to:

- the climate
- the altitude
- the soil
- the agricultural methods
- the time of harvesting

There are several methods of extracting essential oils from plant matter so that the highest grade of quality may be produced, bearing in mind first that the best oils come from the best plants. The methods are:

- water/steam distillation
- solvent extraction

- expression
- enfleurage

Distillation

Distillation is a centuries old technique for obtaining the aromatic essences of essential oils. Today the process is basically the same with some improvements including the use of stainless steel equipment and electrical steam generators.

Water Distillation

The *charge* (plant matter) is completely covered in water in the still and then brought to the boil thus compelling the essences in the plant to evaporate. These rise to the top of the container tank then enter a coiled tube in which the vapour cools and condenses into liquid form. The water, containing the essential oil, is collected in a receiving tank and as the essential oil compounds are lighter than water they rise to the surface and are then separated. The water that remains is known as hydrolat or flower water (one exception is clove oil compounds which are heavier than water and so sink to the bottom).

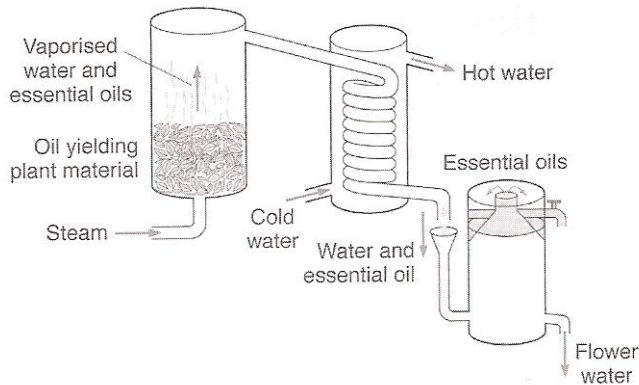
This method protects the essential oil from overheating because it is covered with water. The temperature for this method is lower than steam distillation. Water distillation is used for Rose and Neroli but because this process takes longer it is not recommended for plants such as Lavender whose esters are damaged by long exposure to hot water.

Steam Distillation/Hydrodistillation

Steam is directed from outside the steel container/still and onto the *charge* (flowers and leaves) under pressure. The temperature of the steam is just enough to provoke the essential oils to evaporate. The steam and essential oil vapour pass out from the top of the still along a glass tube which is water-cooled in order to condense the vapour back into a liquid. This liquid is collected in a tank in which the essential oil rises to the top and then can be separated. The distillate that is left over after extraction of the essential oil is a valuable by-product and is used as a hydrolat or flower water. These waters also have excellent healing

properties and are particularly recommended for children, the elderly and those with sensitive constitutions or conditions.

The diagram below gives a basic illustration of the steam distillation process.



There are variations of the steam distillation process. Those that use a low heat to create the steam will take longer but produce a better quality oil as larger molecules can be drawn from the plant material. Higher temperatures result in a faster rate of production and being more efficient are favoured by modern mass producers. While the essential oil can thereby be extracted more cheaply some of the aroma can be lost during this method.

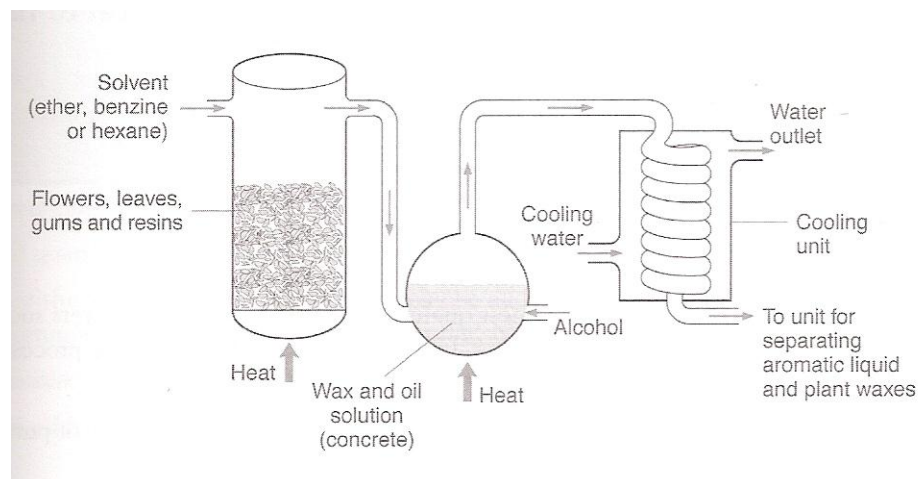
Solvent Extraction

This process involves placing the plant material in a tank with a hydrocarbon solvent, such as hexane, benzene or petroleum ether. The mixture is slowly heated and then filtered to leave a dark-coloured paste called a concrete (a combination of wax and essential oil).

A concrete is a more stable substance and more concentrated than distilled essential oil, and can be stored in this form. When it is needed it then undergoes a second phase where it is agitated with alcohol and chilled in order to recover most of the aromatic liquid and remove the plant wax. The alcohol is then evaporated off in a vacuum at a low temperature leaving a fragrant, rich absolute – a concentrated viscous liquid, solid or semi-solid depending on the source plant. Solvent

extraction of resinous plants will be used to produce a resinoid which is more viscous and often solid at cool temperatures.

The diagram below shows the solvent extraction process:



Solvent extraction is used extensively in the perfume industry and produces the finest flower fragrances but there is an element of controversy regarding the suitability of the use of absolutes in aromatherapy because a small amount of solvent residue will be left in the absolute. This can cause adverse skin reactions in some people.

Enfleurage

Enfleurage is a form of solvent extraction using rendered animal fat or vegetable oil as the solvent. This method is the traditional (and labour-intensive) way to extract the finest quality essences from delicate flowers such as rose and jasmine, which continue to generate oil after harvesting, and whose essential oil content is small but of great delicacy and intense fragrance. As this method is so labour-intensive it is almost obsolete now.

Animal fat or vegetable oil is spread on framed sheets of glass called the chasis. Fresh blossoms of flowers are gathered in the early morning and spread onto the chasis and over the next 12-24 hours the essential oils dissolve in the lipid medium. At the correct time the flowers are removed, and, as the harvest proceeds, more flowers are added and left to wither in the fat until it becomes saturated with essential oil. This

produces the enfleurage pomade which also contains small amounts of plant waxes and fixed oils.

The pomade is then 'washed' with an alcohol solvent such as ethanol, in temperatures warm enough to melt the fat, and then stirred. The essential oil leaves the fat and dissolves in the alcohol. This solution is chilled which precipitates out the residue plant matter leaving the alcohol containing essential oils which is then filtered and distilled at very low temperatures to evaporate the alcohol and leave the absolute (the essential oil concentrate).

Expression

Expression is the way of extracting the aromatic compounds that are found in the peel of citrus fruits. Traditionally this was done manually by either of two methods; the sponge method and *éculle a piquer*.

The sponge method is where the fruit is halved and the pulp removed. The peel is softened in warm water and dried off slightly in air. It is then everted (turned inside out) and the part of the peel containing the essential oil (the pith) is placed next to the sponge. This is then compressed to release the oil which is absorbed by the sponge and collected by squeezing out the sponge.

Éculle a piquer is a semi-manual method where the whole fruit is rotated in a special vessel. The resulting broken up pulp and juice are allowed to settle and the essential oil is then separated off.

Expression is now carried out by machinery in a process known as scarification, a by-product of fruit juice production thereby maximising the profit from the fruit.

Maceration

Maceration actually creates more of an 'infused oil' rather than an 'essential oil'. The plant matter is soaked in vegetable oil, heated and strained at which point it can be used for massage.

Supercritical Carbon Dioxide Extraction

The most modern method of extracting essential oils is the CO₂ and SCO₂, or carbon dioxide and supercritical carbon dioxide, method. This method uses the 'solvent' carbon dioxide to carry the essential oils out of the plant. The lower pressure carbon dioxide method involves cooling the gas to between 55 and 35 degrees F and pumping the chilled CO₂ through the plant at about 1000 psi. In this state the CO₂ is in liquid form and moves quite freely through the plant. By using the supercritical carbon dioxide method, the carbon dioxide is heated to 87 degrees F and is pumped through the plant at 8000 psi. The CO₂ is in gas form and travels through the plant extracting the oils. And like the CO₂ method, when it is cooled the oil is harvested.

This method is more efficient than both the distillation method and that used for absolutes because unlike the former there is no heat applied to the plant itself, and unlike the latter, there is no residue left behind after the process. The essential oil that is extracted by this process is reputed to be of exceptional quality and is as close as one can get to the plant's original aromatic substance. But the disadvantage to this process is that the equipment needed is massive and extremely expensive to use.

Hydro Diffusion/Percolation

Hydro Diffusion method for extraction of oils is a type of steam distillation and is only different in the way in which steam is enters the container of the still. In hydro diffusion, steam is fed in from the top onto the botanical material while in the case of steam distillation, steam is fed from the bottom. In this way the steam can saturate the plants more evenly and in less time than with steam distillation.

The condensation of the oil containing steam mixture occurs below the area in which the botanical material is held. The main advantage of this method over steam distillation is that less steam is used hence shorter processing time and therefore a higher oil yield. This method is also less harsh on the botanical material.

Phytonic Process

This is a new process where the essential oils are extracted from the plant using environmentally friendly solvents at or below room temperature. This ensures that the highly fragile and heat sensitive constituents of essential oils are not lost or altered. The oils extracted by this method are known as 'phytol' oils.

Essential Oil Profiles

Module 1

Jasmine

Jasminum Officinalis

Jasmine is one of the most expensive essences. The Jasmine plant is a creeper, with white or yellow flowers. It is cultivated in Algeria, Morocco, France, China, Egypt, Italy and Turkey: the French oil is the most expensive.

The oil is a deep reddish-brown colour. It blends well with rose and citrus oils and has a sweet, exotic aroma which never fails to please. Jasmine works primarily on the emotions and is of great value in psychological problems. It has a marked effect on the respiratory system and the female reproductive system. It warms and strengthens the body against colds, helps a weak stomach and is of great value in general nervous debility and conditions arising from it.

Plant source: Fragrant white flowers of the shrub or vine.

Plant family: Oleaceae (olive)

Country of origin: France, Hungary

Method of extraction: Solvent extraction.

Aroma characteristics: Very sweet, flowery and heavy aroma.

Odour intensity: Very high

Note: Base

Blends well with: Bergamot, Frankincense, Geranium, Orange, Mandarin, Melissa, Neroli, Palmarosa, Rose, Rosewood, Sandalwood and Tangerine.

Main chemical constituents:

Jasmine is a complex essence with over 100 constituents. Features esters, alcohols, phenols, ketones, acids and aldehydes.

Jasmine's key properties are:

Antidepressant	Anti-inflammatory	Antiseptic
Antispasmodic	Aphrodisiac	Carminative
Expectorant	Euphoric	Parturient
Sedative	Tonic	Uterine

Aromatherapy use:

Skin: Effective on all skin types, especially hot, dry and sensitive skins, oily skin, irritation and stretch marks.

Digestive System: Upsets of nervous origin and anorexia.

Endocrine System: Reproductive problems, menstrual pain and labour pain.

Muscular-skeletal System: Muscular aches and pains and stiffness.

Respiratory System: Coughs, colds, asthma, laryngitis and bronchial spasms.

Nervous System: Anxiety, paranoia, stress, tension, listlessness and exhaustion.

Psychological profile: Jasmine is helpful for confusion, fear, depression, inhibition, lack of confidence, lack of self-worth, lack of interest, lack of trust, nervous tension and sadness.

Safety data: Non-toxic, non-irritating, non-sensitising, though allergic reactions have occurred in some individuals.

Use during Pregnancy: *DO NOT USE DURING PREGNANCY although may be used during labour.*

Jasmine is euphoric and very balancing. It is a comforting oil.

Lavender

Lavendula angustifolia

Lavender originated in the mountainous regions of the Mediterranean. The Romans used it to add to their bath water and the English name is derived from the Latin 'Lavare' to wash. English lavender is often regarded as the finest in the world with large quantities also being produced in France for the perfume industry. The best essence is distilled from the flowering tops and has a faintly yellow tint with a refreshing scent.

Lavender is regarded as the most versatile essential oil. It has many uses including skin conditions (especially acne and burns) and is a superb additive and painkilling essence. It has a balancing effect on the body and mind. It blends well with all other essences including gums.

Plant source: Fresh flowering tops of the evergreen woody shrub.

Plant family: Lamiaceae or Labiatae (mint)

Country of origin: France

Method of extraction: Steam distillation.

Aroma characteristics: Powerful herbal/floral aroma.

Odour intensity: Medium

Note: Middle

Blends well with: Bergamot, Chamomiles, Clary Sage, Geranium, Jasmine, Lemon, Lemongrass, Mandarin, Orange, Patchouli, Pine, Rosemary, Sandalwood and Thyme.

Main chemical constituents:

It has 300 known constituents including esters, alcohols, monoterpenes, sesquiterpenes, ketones, aldehydes, lactones, coumarins and phenols.

Lavender's key properties are:

Antibiotic	Antiseptic	Anti-depressant	Analgesic
Antitoxic	Anticonvulsive	Balancing	Carminative
Cleansing	De-toxifier	Diuretic	Emmenagogue
Insecticide	Nervine	Purifying	Relaxing
Restorative	Sedative	Soothing	Stimulant
Tonic	Vulnerary	Vermifuge	

Aromatherapy Use:

Skin: Abscess, acne, allergies, athlete's foot, boils, bruises, burns, dermatitis, eczema, inflammation, insect bites and stings, lice, psoriasis, ringworm, scabies, spots and sunburn wounds.

Circulation, muscles and joints: Lumbago, rheumatism and sprains.

Respiratory System: Asthma, bronchitis, catarrh, flu, throat infections and whooping cough.

Digestive System: Colic, dyspepsia, flatulence and nausea.

Genitourinary System: Cystitis.

Nervous System: Depression, headache, hypertension, insomnia, migraine, nervous tension and stress.

Psychological profile: Lavender is helpful for anger, anxiety, despondency, depression, emotional instability, fear, hysteria, impatience, irritation, mood swings, negative thoughts, panic, paranoia and worry.

Safety Data: Non-toxic, non-irritant and non-sensitizing.

Use during Pregnancy: Avoid during early stages and then use in small amounts and well diluted.

Lavender is balancing, uplifting, calming and stimulating according to need.

Mandarin

Citrus Reticulata

The Mandarin tree is an evergreen tree which grows up to 6 metres, the leaves are glossy and the flowers are white and very fragrant. It is native to China and the Far East. Mandarins are widely cultivated in the US (Texas, Florida & California), the Mediterranean, Brazil and Guinea. The original plant has been developed to have a looser, easy-peel skin, sweeter flavour and no pips (tangerine).

The peel is an important minor tonic in traditional Chinese medicine useful for balancing and strengthening the digestion. Mandarin is a very mild oil that is an excellent choice for pregnant women and for children.

Mandarin is rich in limonene, which has been extensively studied for its ability to combat tumour growth in over 50 clinical studies.

Plant source: Outer peel of the fruit.

Plant family: Rutaceae (citrus)

Country of origin: Madagascar, Italy

Method of production: Cold expression.

Aroma characteristics: Delicate, sweet, tangy aroma with floral undertones.

Odour intensity: Low to medium

Note: Top

Blends well with; Basil, Bergamot, Black Pepper, the Chamomiles, Grapefruit, Lavender, Lemon, Marjoram, Neroli, Palmarosa, Petitgrain, Rose and Rosemary.

Main chemical constituents: Features limonene, monoterpenes, alcohols, esters, aldehydes, lactones and coumarins and phenols.

Mandarin's key properties:

Antispasmodic	Antiviral	Astringent
Anti-fungal	Cytophylactic	Digestive
Sedative	Tonic	Tonic to skin tissues

Aromatherapy use:

Skin: Cell regeneration, stretch marks (use with wheatgerm oil as preventative during pregnancy), wound healing and scarring, acne, congestion and oiliness.

Digestive System: Relieves bile congestion, flatulence, loss of appetite, colitis, constipation and indigestion especially in children, pregnant women and elderly people.

Circulatory System: Fluid retention, sluggish circulation and obesity.

Endocrine System: Pregnancy and pre-menstrual tension.

Nervous System: Insomnia, anxiety, depression, nervous tension, stress-related problems, low mood and restlessness.

Psychological profile: Mandarin is helpful for anxiety, dejection, dwelling on the past, feelings of emptiness, grief, nervous tension, over-excitability, restlessness and shyness.

Safety data: May be phototoxic so it is best to avoid exposure to strong sunlight/ultra-violet light following treatment.

Use during Pregnancy: Use in small amounts and well diluted.

Mandarin is refreshing, it dispels anxiety and is uplifting to the mind, body and spirit.

Peppermint

Mentha Piperita

Peppermint is probably best known as a remedy for digestive upsets as it has a beneficial action on the stomach, liver and intestines. It was used by the Egyptians and the Romans for its digestive qualities. It has an antispasmodic action that relaxes the smooth muscle in the stomach and gut thus relieving symptoms of colic, diarrhoea, indigestion, vomiting and stomach pain. Drinking peppermint tea is an excellent way of relieving digestive problems.

The primary constituent of peppermint is menthol, which causes a physical reaction when inhaled or applied to the skin. Menthol produces an immediate and pronounced sensation of coolness which the body reacts to quite strongly, producing its own 'warming effect' as blood flows into the area of application. This physical sensation impresses the senses as a 'medicinal' effect and is partially responsible for peppermint's long history as a medicine. Menthol is often found in sports creams and chest rubs.

Peppermint is a stimulating oil to both mind and body and is therefore an excellent choice for mental and physical fatigue.

Plant source: Stems and leaves of the herb.

Plant family: Lamiaceae (Labiatae)

Country of origin: North America, Mediterranean area, Great Britain

Method of extraction: Steam distillation.

Aroma characteristics: Strong, sharp piercing menthol aroma.

Odour intensity: Medium to high.

Note: Top

Blends well with; Benzoin, Cypress, Lavender, Mandarin, marjoram, Orange, Pine and Rosemary.

Main chemical constituents:

Features alcohols, ketones, oxides, esters, sesquiterpenes, monoterpenes, lactones and coumarins.

Peppermint's key properties are:

Analgesic	Anti-inflammatory	Antimicrobial
Antiseptic	Antiparasitic	Antibacterial
Antispasmodic	Antiviral Astringent	Carminative
Cephalic	Decongestant	Diaphoretic
Emmenagogue	Expectorant	Febrifuge
Hepatic	Nervine	Stomachic
Sudorific	Vasoconstrictor	Vermifuge

Aromatherapy Use:

Skin: Acne, dermatitis, ringworm, scabies, toothache and broken capillaries.

Circulation, muscles and joints: Can raise blood pressure so useful for hypotension, neuralgia, muscular pain, palpitations and varicose veins.

Genito-urinary System: Relaxing and pain relieving so useful for menstrual cramps and stimulates production of menstrual flow.

Respiratory System: Asthma, bronchitis, sinusitis, spasmodic cough, catarrh, bronchitis, sinusitis and flu. Clears sinuses and can improve breathing.

Digestive System: Colic, cramp, flatulence, nausea, indigestion, diarrhoea, stomach pains, helps to break up gallstones, stimulates production of gastric juices, relaxes digestive muscles, tones the stomach and improves appetite.

Immune System: Colds, flu, fevers.

Nervous System: Fainting, headache, mental fatigue, migraine, nervous stress, vertigo.

Other Uses: Insect repellent.

Psychological profile: Peppermint is helpful for depression and fatigue.

Safety Data: Non-toxic, non-irritant, but possible sensitization due to the menthol content. Use in moderation as it is a very stimulating oil. It is best avoided by those suffering from epilepsy and heart disease.

Use during Pregnancy: DO NOT USE DURING PREGNANCY

Peppermint uplifts, invigorates, opens the mind, clears doubt and confusion and improves concentration.

Rosemary

Rosmarinus Officinalis

Rosemary has been used continuously since ancient times in Egypt, Greece and Rome for sacred, ritual and medicinal purposes. Rosemary was part of the 'Marseilles Vinegar' or 'Four Thieves Vinegar' used by grave-robbing bandits to protect themselves during the 15th Century plague. The name of the oil is derived from the Latin words for dew of the sea (ros + marinus). According to folklore history, rosemary originally had white flowers; however, they turned red after the Virgin Mary laid her cloak on the bush. Since the time of ancient Greece (about 1,000 B.C.), rosemary was burned as incense. Later cultures believed that it warded off devils, a practice that eventually became adopted by the sick who then burned rosemary to protect against infection.

It is a physical and mental stimulant that is also useful for a wide range of nervous, circulatory, muscular and digestive disorders. Rosemary has the reputation for improving memory. Inhaling a few drops certainly improves mental clarity. It is valuable for respiratory problems ranging from the common cold, sinusitis to asthma. It is an excellent tonic for the heart, liver and gallbladder and is also very good for tired, stiff and overworked muscles.

Plant source: Flowers and leaves of the herb.

Plant family: Lamiaceae (Labiatae)

Country of origin: Tunisia, Morocco, Spain

Method of extraction: Steam distillation.

Aroma characteristics: Strong, herbal aroma with a clear, warm and penetrating note, camphor undertone.

Odour intensity: High

Note: Middle

Blends well with; Lavender, Citronella, Thyme, Pine, Basil, Peppermint, Cedarwood, Petitgrain, Eucalyptus, Tea Tree, Niaouli and Cajeput.

Main chemical constituents:

Features oxides, monoterpenes, ketones, sesquiterpenes, alcohols and esters.

Rosemary's key properties are:

Analgesic	Anti-microbial	Antioxidant
Anti-rheumatic	Antitumoral	Antifungal
Antibacterial	Antiparasitic	Antiseptic
Antispasmodic	Astringent	Carminative
Choleretic	Cephalic	Digestive
Diuretic	Emmenagogue	Fungicidal
Hepatic	Hypertensor	Nervine
Restorative	Stimulant (circulatory & adrenal)	
Stomachic	Tonic	Vulnerary

Aromatherapy Use:

Skin: Acne, oily skin – regulates sebum, dermatitis, eczema, lice, scabies, hair care – stimulates growth, reduces oiliness and reputed to inhibit greying.

Circulation, muscles and joints: Arteriosclerosis, fluid retention, gout, muscular pain, joint pain, neuralgia, palpitations, poor circulation, varicose veins, cuts, wounds, sores, massage before athletic or dance performance to strengthen and prepare muscles.

Endocrine System: Glandular disorders, weak adrenal glands.

Respiratory System: Asthma, bronchitis, whooping cough, sinusitis.

Digestive System: Colitis, flatulence, jaundice, weak digestion, intestinal infections, diarrhoea, constipation, gallstones, fatty liver/hypercholesterolaemia.

Immune System: Colds, flu, infections.

Nervous System: Headaches, hypotension, nervous exhaustion, stress related disorders, fatigue, vertigo, fainting, migraine.

Psychological profile; Rosemary is helpful for anguish, anxiety, confusion, depression, doubt, emotional numbness and nervous debility.

Safety Data: Do not use if suffering from epilepsy or high blood pressure. Non-toxic, non-irritating (in dilution) and non-sensitising.

Use during Pregnancy: DO NOT USE DURING PREGNANCY

Rosemary is uplifting and energising to the mind. It refreshes, improves concentration and memory.

Ylang Ylang

Cananga Odorata

A small tropical tree, which is native to the Philippines, tropical Asia, Indonesia and the East Indies Island's produce the essential oil called Ylang Ylang. The flowers are pink, mauve or yellow depending on the variety: yellow is considered to produce the finest oil. The first part of the oil which is drawn off during the steam distillation process is of the highest quality and is sold under the name of Ylang Ylang. The oil that is drawn off at the latter part of the process is of poorer grade and is sold under the name of Cananga. This has the same therapeutic properties but the perfume of Cananga is less refined.

Ylang Ylang means 'flower of flowers.' The flowers have been used to cover the beds on newlywed couples on their wedding night. It is traditionally used in hair formulas to promote thick, shiny, lustrous hair.

Probably the most important property of Ylang Ylang is its ability to slow down over-rapid breathing (hyperapnoea) and over-rapid heartbeat (tachycardia). It will help to reduce high blood pressure and it is an antidepressant, sedative and an aphrodisiac. It is a real comforter in times of stress.

Plant origin: Freshly picked fragrant flowers of the small tropical tree, picked in early summer and early in the morning.

Plant family: Annonaceae

Country of origin: Comoro

Method of extraction: Steam or water distillation – the first distillate is called Ylang Ylang Extra then further successive distillates are called Ylang Ylang 1, 2, & 3.

Aroma characteristics: Very sweet heavy, floral and exotic aroma with a musky undertone.

Odour intensity: High

Note: Base

Blends well with; Geranium, Jasmine, Lavender, Citrus Oils, Benzoin, Rose and Vetiver. Blend with Bergamot or Sandalwood for men who may dislike its sweetness.

Main chemical constituents:

Features sesquiterpenes, alcohols, esters, phenols, monoterpenes, ketones and acids.

Ylang Ylang's key properties:

Antidepressant	Antiseptic	Aphrodisiac
Antispasmodic	Antidiabetic	Anti-inflammatory
Antiparasitic	Euphoric	Hypertensive
Nervine	Regulator (hormonal & sebum)	
Sedative (nervous)	Stimulant (circulatory)	
Tonic (uterine)	Vasodilating	

Aromatherapy use:

Skin: Infections, bites, oily and dry skin, allergies, irritation and stimulates hair growth.

Digestive System: May be of use with psychological disorders associated with eating habits.

Circulatory System: High blood pressure (hypertension – slows heartbeat), tachycardia, palpitations with over-rapid breathing (hyperapnoea), shock, fright, anxiety, anger or frustration.

Reproductive System: Impotence, frigidity, infertility, menopause and hormonal problems.

Nervous System: Anxiety, depression, nervous tension, insomnia, restless sleep or legs, shock, trauma, stress and severe tension.

Psychological profile: Ylang Ylang is a confidence booster: it is useful for anger, insecurity, fear, frustration, panic, introversion, lack of confidence, jealousy, sensitivity and stubbornness.

Safety data: Non-toxic, non-irritant, non-sensitising although in some cases sensitisation has been reported. Use in low concentrations as the heady aroma can cause headaches and nausea.

Use during Pregnancy: Do not use in first three months, afterwards use in small amounts and well diluted.

Ylang Ylang is helpful for shock, trauma and depression especially in women, it cools hot emotions and helps enhances self-esteem. It balances the male-female energies and enhances spiritual attunement. It restores confidence and peace.

This is an interesting article written by Christine Wildwood added in for your information.

Sense of smell – ‘The Aromatherapy and Massage Book’ by Christine Wildwood

Researchers at Yale University, USA, have discovered that the aroma of apples and cinnamon has a powerful stabilizing effect on some people, especially those suffering from nervous anxiety. The smell has even been known to lower high blood pressure and to stave off panic attacks. How does this work?

The olfactory centre - the area of the brain associated with smell - merges with the limbic system which is concerned with basic drives such as hunger, thirst and sex and also with subtle responses such as emotion, memory, creativity and intuition. The olfactory area also connects to the hypothalamus, an important structure which influences the pituitary gland, and therefore controls the hormonal system.

From this it may be easier to understand how odours influence both the physical and emotional aspects of our being. Consider, for example, the aroma of your favourite food. The delicious vapour will stimulate your appetite by making your mouth water and at the same time cause the digestive juices to flow. If the aroma is associated with a happy occasion then memory comes into play as well, adding to the pleasurable rush.

Pleasing aromas, along with enjoyments such as eating, falling in love, listening to music and looking at beautiful things, cause the release of certain ‘happiness chemicals’, which form part of a family of opium-like substances broadly labeled, enkephalins and endorphins. Such release is found in chocolate and rosewater in the form of phenylethylamine. These ‘happiness’ substances are also known to help strengthen the immune system.

The power of aroma to conjure up memories is perhaps the most familiar. A mere hint of a certain scent may remind you of a first love, a special event or a childhood visit. Likewise certain aromas, no matter how pleasing to others, will evoke distressing feelings in somebody who associates the odour with an unpleasant experience. A friend of mine cannot abide the scent of jasmine because it reminds her of funerals.

Another loathes the scent of rose because it reminds her of an unhappy episode at school, in particular a harsh schoolmistress who always smelled of a rose-scented perfume.

Many people also have 'blind spots' to certain odours, such as musks, or nuances of individual smells - an odour rarely arises from a single odoriferous molecule and is usually an interaction of many. Some people, however, can detect the merest hint of a particular odour.

Although a healthy olfactory centre can pick up over 10,000 different odours, if it is subjected to the same odour for even a short while, the olfactory cells become 'saturated', exhausted and cease to detect the odour, even though we may, from time to time, experience a fleeting reminder of its presence.

Of the many aroma trials carried out at Warwick University, England, by researchers Dr. Steve Van Toller and Dr. George Dodd, one was particularly noticeable. They produced evidence that we can respond both emotionally and physically to odours that are so highly diluted they are imperceptible to the conscious mind.

In the Van Toller-Dodd experiments, volunteers were wired up to an EEG (electro - encephalograph) instrument which records the brain's electrical activity along with subtle reactions of the skin. When they were exposed to low-level fragrance, very clear skin responses were noted. It appears that the skin acts like antennae, communicating the aroma to the body's central nervous system. Radiological scanning techniques also confirm the brain's registration of low-level fragrance.

From this we can consider that even sufferers of anosmia (major loss of the sense of smell) can benefit - albeit at a subtle level - from an aromatherapy treatment or perfume. Indeed, as mentioned earlier, whether we can continue to smell the oils or not during a treatment does not reduce the healing effect.