

Module 6

Course Manual

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Instructions for Module 6

Please take some time to read through this module.

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.

Main topics covered by Module 6:

- Aftercare and homecare
- Body Shapes and types
- Skin types and characteristics
- Legislative Labelling
- An introduction to the chemistry of essential oils
- Case study paperwork

Aftercare Advice and Home Treatment following an Aromatherapy Treatment

Aftercare Advice

It is good practice as a qualified therapist to advise the client on what to do and what to expect after an aromatherapy massage or home treatment. But it is also important to suggest, in the light of your experience and if appropriate, ways to help balance the client's system, for example with nutrition or with an exercise regime

It is also crucial, if you believe this client's needs are beyond your skills, to feel able to recommend them to their GP or to other health care professionals. Make sure you record any such recommendations on their treatment plan.

- Immediately following a massage; allow the client time to revive, sit the client up carefully, give them water and your feedback.

Inform your client of the following aftercare to prolong the treatment benefits:

- Do not take a bath or shower for 6-8 hours following an aromatherapy massage to allow time for the absorption of the essential oils and carrier oil.
- Do not drink alcohol, tea, coffee or eat a heavy meal immediately following the treatment as this will interfere with the cleansing process.
- Advise the client to drink plenty of water to enhance the cleansing process and help with the elimination of toxins and waste. *Always offer the client a glass of water immediately after the treatment.*
- Aim to eat healthy food following a treatment.
- Take plenty of exercise.
- Do not smoke.

- Advise the client to be aware of their posture, sleep patterns, time to rest, relaxation techniques, hobbies and interests and stress levels.
- Ensure the client is aware that they may experience a possible reaction (**healing crisis**) to the treatment. This may be a headache, tiredness, muscular aches or an increase in urine or bowel movement. Reassure the client that this is perfectly normal and that it is all part of the elimination process. It will pass within 48 hours and is the result of positive healing within the body.
- Advise the client that they need to listen to their intuition about what their body wants them to do; take more rest or do some light work. Some people experience an increase in energy levels, others a decrease, but whatever they do experience it is important to take as much rest as possible to enhance the effects of the treatment.
- Encourage the client to include an aromatherapy treatment as part of their holistic lifestyle, to include their home treatment as a part of everyday life and to generally improve their lifestyle and well-being.

Ensure that you ask the client to let you know if they experience a healing crisis so that you can record this on their treatment plan. Also inform them of any observations you have made during their treatment.

It is important to advise them of the benefits of having a course of treatments; it may take time for the benefit of the treatment to be noticed, it may take time for any patterns of imbalanced energy to be altered and some people respond quicker to the treatment than others. So recommend a treatment plan with your reasons for this. It may include a course of massage as well as home treatment to enhance the effects.

Home Treatment

Home treatment is an important part of aromatherapy because:

- It reinforces and enhances the benefits of the massage treatment.
- It can replace the massage treatment if it is not appropriate for the client to have a massage.
- It ensures the client receives repeated doses of the remedial essential oils for the condition.
- Helps the client to take responsibility for their healing process.
- It might remind the client to act on any of your suggestions regarding lifestyle changes.

Home treatment can include the following:

- Using a prepared blend of essential oils in the carrier oil for self-massage application or bath use.
- Preparing the blend of essential oils in a cream, lotion, gel wash, bath salts or other.
- Preparing the blend of essential oils neat in a bottle so that they can put a drop on the pillow or in an oil burner to balance their emotional needs.

MAKE SURE YOU GIVE CLEAR INSTRUCTIONS ON HOW THE CLIENT SHOULD USE THE HOME TREATMENT.

Record this in your treatment plan.

Body Shapes and Types

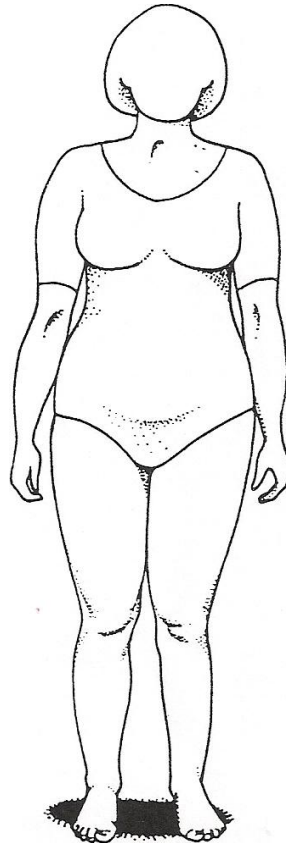
People come in all different shapes and sizes, so it is important to appreciate which problems may be solved, which may be improved and most of all, which ones must be accepted as unchangeable.

There are three types of body shapes:

- Endomorphs
- Mesomorphs
- Ectomorphs

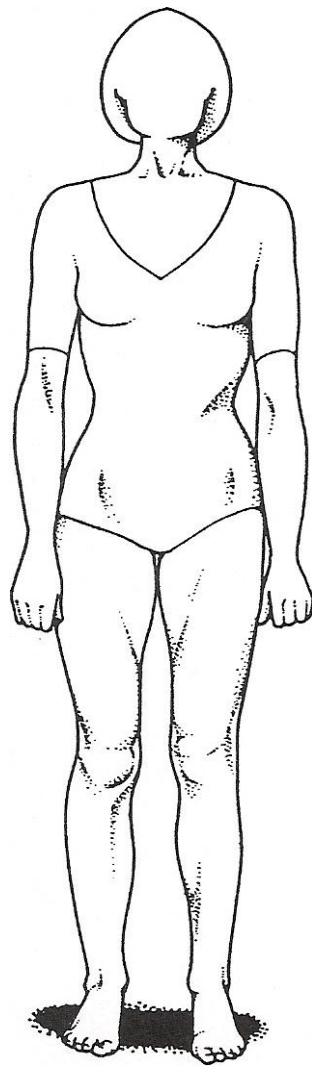
Characteristics of ENDOMORPHS

- Rounded, heavy body
- Short stature
- Often overweight
- Small hands and feet
- Body movements are slow and deliberate
- Endomorphs are prone to weight gain which is always difficult to lose.



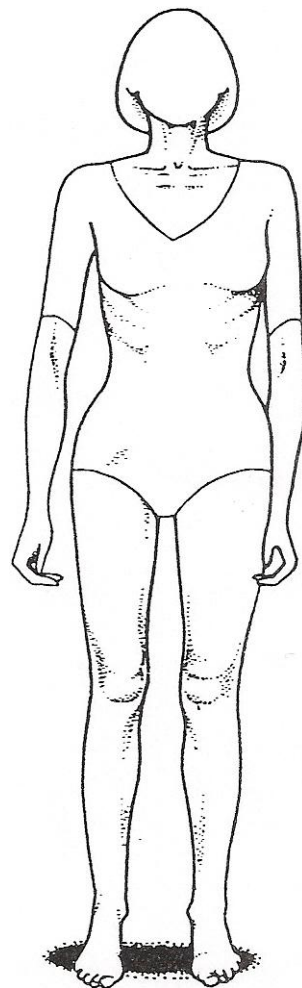
Characteristics of MESOMORPHS

- Average figure
- Average height
- Normal weight for height
- Good muscle cover
- Slim hips
- This type of figure is usually easy to control - stays in shape with little maintenance.



Characteristics of ECTOMORPHS

- Pencil shape
- Long bones
- Above average height
- Lacking in curves
- Often underweight
- Lacks muscle bulk
- Lacks vitality, energy and stamina



Features to consider:

- Genetic shape
- Age
- Bone structure
- Height
- Postural defects
- Client's own aspirations

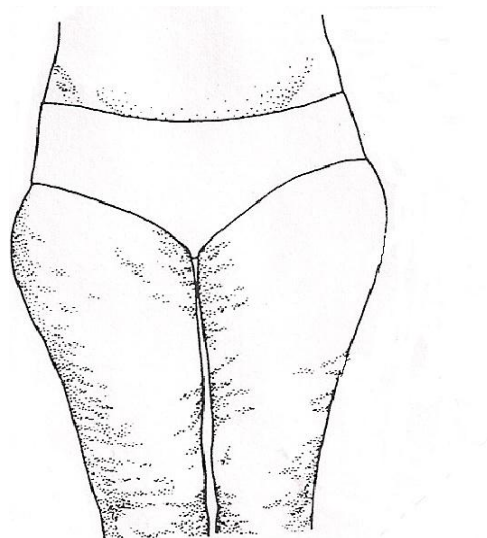
Look at all these factors and decide upon the advice and treatment you are going to give, based on your holistic principles:

Does the client need to; lose weight, Gain weight? Improve posture? Improve skin and hair? Improve muscle tone? Eat a 'healthier diet '? Take more exercise? Relax more?

CELLULITE

Cellulite is a dimpled orange peel appearance of fatty deposits under the skin, particularly the buttocks, thighs and upper arms. Clients will be concerned about it and will ask your opinion about because they are notoriously difficult to remove.

Not a medical condition - but the word used makes fatty deposits seem more acceptable.



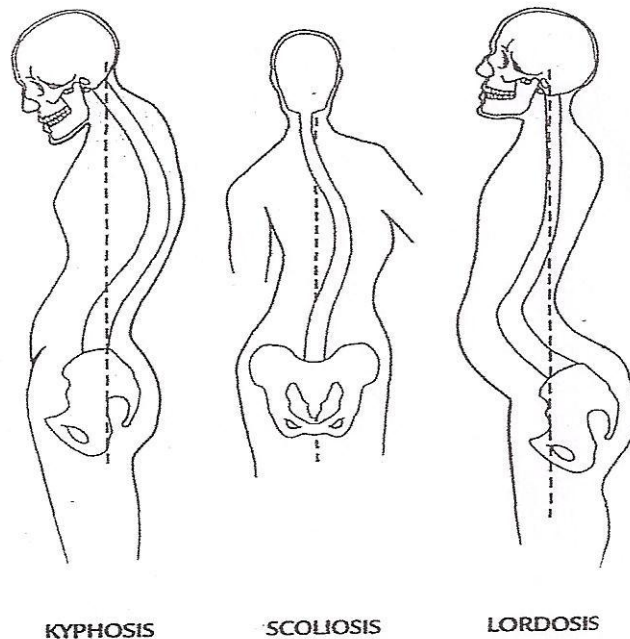
POSTURAL DEFORMITIES

The spine has two natural curves. In certain cases, the spine's natural curves become exaggerated, causing unnatural curves, or postural deformities. There are four causes for these:

1. **Congenital** – those which are present at birth or are hereditary
2. **Environmental** – sitting and standing incorrectly can cause long-term damage
3. **Traumatic** – caused by accidents
4. **Disease** – osteoporosis, tuberculosis, polio and tumours

There are three kinds of exaggerated curvature of the spine:

1. **Kyphosis** – outward curvature at the top of the spine, resulting in either a hump or a more gradually rounded back
2. **Scoliosis** – a sideways curvature of the spine – the thoracic or lumbar regions are mostly affected
3. **Lordosis** – an exaggerated inward curvature of the spine, normally present in the lower back



Skin Types and Characteristics

Dry Skin

Description:

- Skin usually feels tight, rough and uncomfortable especially after washing or shaving
- Tends to look dull and thin with an uneven texture
- Vulnerable to flaking, scaling and peeling
- Pores on your face are small in size

Best Treatment:

- Cleanse twice daily
- Moisture twice daily, using a rich moisturiser
- Exfoliate once a week, with a gentle facial scrub
- Use a hydrating mask at least once a week
- Protect your skin daily with a SPF15+ sunscreen
- Avoid shaving foams and soap
- Drink plenty of water to hydrate the skin

Oily Skin

Description

- Skin tends to be shiny and greasy
- Prone to blemishes, blackheads and pimples
- Skin looks thick and firm
- Pores are medium to large in size and often clogged with dirt

Best Treatment

- Cleanse twice daily
- Tone twice daily, using an astringent toner
- Moisturise at least once a day with an oil-free moisturiser
- Exfoliate with a mild facial scrub 2 -3 times a week
- Use an exfoliating clay mask at least once a week
- Opt for an aftershave gel or astringent rather than a cream
- Avoid all over body moisturisers
- Avoid products with harsh ingredients or those that will over dry the skin

Normal Skin

Description

- Skin is well-balanced and is neither oily or dry
- Feels smooth and looks moderately thick and even in texture
- Rarely suffers from blemishes, blackheads or skin outbreaks
- Pores are relatively small and not clogged with dirt

Best Treatment

- Cleanse twice daily
- Tone twice daily (optional)
- Moisturise at least once a day with a light moisturiser
- Exfoliate 2 times a week with a gentle facial scrub
- Using a mask is optional but recommended at least once a month
- Protect with a sunscreen of SPF15+
- Look after your skin to maintain it that way otherwise it may dry out or become clogged

Combination Skin

Description

- Skin is a combination of the above types
- Usually characterised by an oily T-zone (forehead, nose and chin) and drier cheeks and eyes
- T-zone tends to be prone to spots and blemishes

Best Treatment

- Cleanse twice daily
- Use a toner on the T-zone twice a day
- Scrub twice a week
- Use an oil-free moisturiser on the T-zone but a hydrating moisturiser on the dry areas
- Use an exfoliating mask on the T-zone at least once a week
- Treat each area separately and use different products on different areas or use specific products for combination skin

Sensitive Skin

Description

- Skin is easily irritated and tends to burn in the sun
- Has moderate to severe reactions when exposed to heat, wind, weather, certain fabrics or fragrances
- Often red, blotchy, dry and itchy

Best Treatment

- Cleanse twice daily
- Use a mild scrub twice a week
- Moisturise twice daily with a light moisturiser
- Using a hydrating mask once a week is optional
- Always apply a sunscreen with a minimum SPF 15 rating
- Opt for a shaving gel instead of a cream
- Avoid soap, fragrances or products containing harsh chemicals
- Choose products specifically designed for sensitive skin
- Remain cautious when applying products and discontinue use if skin becomes red or has an allergic reaction

Mature Skin

As we grow older, the skin becomes drier, more wrinkled, and spots and growths appear. Also, after an injury our skin tends to heal more slowly. Some of these skin changes are natural, unavoidable, and harmless. Others are itchy or painful, and some changes, such as skin cancers, are serious and require medical attention.

As skin ages, collagen and elastin, fibres that keep the skin firm, weaken thus resulting in wrinkles. The skin looks loose and lax, becomes thinner and loses fat, so that it looks less plump and smooth. While all these changes are taking place, gravity also is at work, pulling at the skin and causing it to sag.

The sun is the major cause of unwanted changes in the skin when it comes to aging. How wrinkled your skin becomes depends largely on how much sun you have been exposed to in your lifetime. Cigarette smoking also can contribute to wrinkles. Wrinkles also depend on your parents; the tendency to wrinkle is inherited.

- Always wear sunscreen with SPF of at least 30.
- Wear a hat with a brim and other protective clothing.
- Don't deliberately sunbathe.

Broken capillaries, or Telangiectasia, are dilated facial blood vessels that may be related to sun damage. They respond to the same treatments as other broken blood vessels (angiomas).

Young Skin

Youth skin care must start by understanding young skin typically is oily with excessive sebum production which presents a special problem. The excessive sebum can harden and block the hair pores. The plug is called a comedo.

Plugs start as a white-colored blockage (or whitehead), then air oxidation darkens the sebum to form a "blackhead". Bacteria in the blocked hair pore begins to multiply and produce the irritation that becomes acne. Birth control pills, steroid hormones, and androgenic hormones such as testosterone can cause or aggravate acne. Acne tends to flare up during the menstrual cycle as hormonal fluctuations are experienced prior and during ovulation.

The best treatment for young skin care is to use light oil-free serums. Treat oily skin gently and in time your skin's lipid (oil) balance should even out.

Legislative Labelling

The Aromatherapy Trade Council's Code of Practice

(1) Responsible Marketing

All promotional literature must give clear guidelines as to how the aromatherapy products are to be used, giving recommended dilutions where necessary. The Medicines Act clearly states that no medicinal claims can be made on labels, promotional material or advertisements – including web sites – for products that have not been licensed as medicines. Essential oils cannot be licensed since they vary like wine, from crop to crop. Therefore no aromatherapy product may make remedial claims if it relates to a specific disease or adverse condition of the body or mind.

(2) Product Labelling & Packaging

Although detailed information regarding the usage and dilution of essential oils may be explained fully in leaflets, the following information and warnings must be printed on the consumer product label: -

- Instructions for use: e.g. add 5 drops of essential oil to 10 ml of carrier/6 drops in a bath etc.
- Keep away from children and eyes.
- Do not take internally or apply undiluted to the skin.
- The quantity supplied e.g. 5 ml/10 ml.
- The company name and address or postcode.
- Batch code number.
- Botanical and common name of plants.

(3) Droppers

Integral single drop dispensers must be incorporated in all bottles of essential oils on sale to the general public. A bottle of essential oil with an integral dropper has a built-in safety factor, which prevents the contents being swallowed quickly by an unattended child.

(4) Random Testing

The ATC has adopted a policy for the random testing of its members' essential oils as a way of helping to maintain standards and confidence in our members.

(5) Legislation, Regulation & General Conduct

Members shall at all times comply with laws, regulations and guidance notes issued by Government or any other regulatory authority and shall at all times conduct their business with their customers and the public generally so as to uphold the good standing of ATC. Failure to do so may result in disciplinary action and/or expulsion.

Information quoted from AromaVision regarding labelling and the current legislation:

At present the making of and treating with/selling of products containing essential oils (The "Products") is directly governed and otherwise impacted by various pieces of legislation, rules and regulations.

The Law

In terms of current legislation, Consultants making and supplying Products will generally be required to comply with the Cosmetic Product (Safety) Regulations 2008 (The "CP Regs") or if just selling the Blends as they are they may come under the General Product Safety Regulations 2005 (The "GP Regs"). In addition, depending on the Product, there may be other relevant regulations or provisions.

In order for Products to be compliant in terms of the CP Regs, a manufacturer (the Consultant) has to (i) meet strict labelling requirements (see Labelling below), (ii) commission safety assessments for all Products and (iii) compile a Product Information Package containing among other things the safety assessments, Material Safety Data Sheets, Good Manufacturing Practice, Method of Manufacture and other information.

Exemption

This is unless and insofar as their work is exempt in terms of Section 12(1) of the Medicines Act of 1968 (The "1968 Act"). Currently, many working in this area rely on this exemption for attended sales.

It must be noted however that the pending reform of Section 12(1) of the 1968 Act is most likely to result in this exemption being removed and this reform is to come into effect from 30 April 2011.

Medical Claims

In describing a product, no “medical claim” should be made in respect of such product unless it is deemed to be a “medicinal” product. If it is deemed to be such, then it is subject to the “Medicines for Human Use” Regulations of 1994 (The “1994 Regs”) and the 1968 Act and accordingly requires to have a marketing authorization or product license (unless exempt in terms of Section 12(1) of the 1968 Act).

There is a body specifically responsible for monitoring this called the **Medicines and Healthcare Products Regulatory Agency** (“MHRA”). They are responsible for determining if a product is “medicinal”. It must be noted that no natural product is ever likely to be accepted under the 1994 Regs as a medicinal product because of the very fact that it is a natural product with all the variables that implies.

Whilst those Consultants supplying Products using the Section 12(1) Exemption could technically make medical claims on such Products, it is not entirely clear what would meet the strict requirements of this Exemption and Consultants have always been advised not to risk any possible contravention of this Act.

Accordingly, on the basis that Products are not medicinal, Consultants must not make any medical claims (directly or indirectly) on the label of Products or any leaflet or other accompanying information or documentation.

The term “medical claim” covers a wide range of words and expressions which might not initially seem to be “medical” and therefore Consultants should exercise caution and always check if unsure.

Labelling

As well as ensuring that they do not make medical claims Consultants must also adhere to strict labelling requirements and information on any Products they supply. In terms of Section 12(1) limited information is required but again, so as not to risk contravention if the supply was not to meet the requirements of the exemption Consultants are

recommended to provide the following information which would be required in terms of the CP Regs and so would cover most scenarios.

Labels

The following information and warnings should be printed on a consumer product label:-

- General instructions for use e.g. if a bath foam, “10mls in a bath”.
- “Keep away from children and eyes”
- “Do not take internally”
- The quantity supplied e.g. “5ml”, “100ml” etc
- Name and address of the supplier and postcode, although full address is preferred
- Batch Code Number
- Best Before Date e.g. “Best used before the end of 01/07/09”
- “Do not apply undiluted to the skin” – only necessary if it’s a pure essential oil/blend
- Reference to (i) Warning Statements and precautionary information and (ii) ingredient listing, using abbreviated text or the “hand and book” symbol to direct the consumer to where this information is, such as under base label or on a leaflet e.g. “Please read the important information in the accompanying leaflet”

The label should state if the Product is not appropriate for use by children or animals, unless this is provided for in the leaflet. Basically, certain information has to accompany products and, whilst ideally it would all be on the labels, it is sufficient to include only the above information on the label as long as the remaining information is contained in packaging or a leaflet to accompany the Product.

AromaVision May 2010.

Labelling Continued:

If products are in a shop and on a display which is generally unattended then the only information available about this product will be on the label. This brings it under two sets of regulations:

1. **Trading Standards** – the product does need to signed off by an independent bio-chemist before it can be offered for general sale. Labels will need to be comprehensive with a full ingredients list, usage instructions and warnings. As there may be too much information for a small label a leaflet containing the required information can be attached.
2. **Medicines and Healthcare Products Regulatory Agency (MHRA)** – this agency determines whether a product is ‘medicinal’ or not. If it is then it is subject to the ‘Medicines for Human Use’ Regulations 1994 and the Medicines Act 1968.

Rules and Regulations

- **In your own private clinic** – as you are working with your private clients/named individuals the products will be sold under the context of the treatment or consultation and therefore a label is not necessary and the regulations do not apply. But it is recommended that you do have a label with the client’s name and what the product is for.
- **For a stall, house party or attended display** – you will need a little more information on the labels such as how to use the product and some safety data; ‘Keep away from eyes and children’ or ‘Use twice daily’.

But as with all labels do not make any medical claims.

- **To sell through a specialist shop** – for example, if you make a range of products for hair care and you sell them through a hairdresser’s salon. The products will be attended and you will train the hairdresser in what the products are for and what they contain so again as long as you do not make any medical claims you can have just the basic information on the label.
- **To sell on the open market** – if a product is being sold unattended directly to the public then as long as no medical claims are made in the name of the product and in the

information on the label then it will not come under the attention of the MHRA. Ensure that the label contains the basic information and the point of sale material details the ingredients.

Safety

In order to make sure your products are entirely safe for your client ensure that you provide full instructions for use, including how many essential oil drops should be used when mixing a massage blend or adding them to a bath. Essential oil product labels provide the botanical name of the oil, its country of origin, instructions for use, a 'best before' date plus any contraindications that are applicable to the oil in the bottle. These are not just 'generic' instructions - everything is specifically related to the essential oil in the bottle.

Tamper-evident closures should be used if possible on all essential oils, and integral droppers are incorporated to ensure that an unattended child could not swallow the oil.

What legislation applies to aromatherapy practices?

Although there is currently no legislation specifically regulating aromatherapists (unlike medical practitioners, osteopaths and chiropractitioners) the profession is keen to introduce statutory regulation at some point in the future.

Aromatherapists are currently regulated on a voluntary basis by two regulatory bodies. The General Regulatory Council For Complementary Therapies (GRCCT) is the main federal regulator for complementary therapies in the UK and operates a national register of approved practitioners. Another voluntary regulator, the Complementary and Natural Healthcare Council (CNHC), was set up by the Prince's Foundation for Integrated Health (FIH) and started regulating complementary practitioners like aromatherapists from mid 2008. You can find out more about voluntary regulation on the GRCCT and CNHC websites. More information about regulation is also available on the Aromatherapy Council website.

Members of aromatherapy associations, such as the International Federation of Professional Aromatherapists (IFPA), must comply with their code of conduct. You can read the IFPA code on their website.

Health and safety matters

Essential oils must be used with care and some have been identified as being harmful in certain circumstances, for example where clients have skin conditions such as eczema and psoriasis. The International Fragrance Association (IFRA) has identified oils which should only be used with caution and some which they have placed on the banned list.

Essential oils fall within the scope of the Control of Substances Hazardous to Health (COSHH) Regulations because they can be toxic and also can cause allergic contact dermatitis where aromatherapists use them a lot. You must make sure that you carry out a work place risk assessment and put in place systems so that chemicals are used as safely as possible. You can find out more about your duties as an employer under the COSHH Regulations from *COSHH, a brief guide to the Regulations* which you can download from the Health & Safety Executive (HSE) website.

Under the terms of the Chemicals (Hazard Information and Packaging for supply) Regulations (CHIP), essential oils must be properly packaged and labelled. Suppliers must also provide their customers with Material Safety Data Sheets (MSDS) which carry information about the product, hazardous ingredients, details of the composition of the oil such as its Chemical Abstracts Service (CAS) number and details of flammability, danger of explosion and so on.

If you make retail sales of aromatherapy products such as lotions, massage oils, soaps and so on, you should be aware of the Cosmetic Products (Safety) Regulations. These cover the ingredients that can be used in cosmetic products and what must be included on labels. You can find out more in the BIS publication *Guidance on the Implementation of the Cosmetic Products (Safety) Regulations* which you can download from the BIS website.

You can find out more about the regulations applying to essential oils from the Aromatherapy Trade Council (ATC) website which represents the aromatherapy essential oil industry.

As well as making sure that essential oils are stored and used safely, you must also comply with health and safety legislation that covers all aspects of health and safety in the work place. Employers have a duty to ensure the health and safety at work of all of their employees and those with more than five employees must prepare a written health and safety policy statement. You should contact your local authority environmental health department for advice and guidance.

Data protection

Any business that keeps records of customers' details, or uses a CCTV system, may need to register with the Information Commissioner. Contact the Office of the Information Commissioner, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF.

An introduction to the Chemistry of Essential Oils

An important aspect to consider when combining essential oils for a therapeutic effect is their chemistry. Essential oils are made up of highly complex chemical constituents the majority of which fall into the following three principal groups:

Group 1 – Hydrocarbons

An Isoprene is a unit that acts as a monomer or single unit that builds up in repeating units (chain structure) to make the groups of terpenes found in essential oils. Their name normally ends in –ene.

- Terpenes or Monoterpenes – stimulating
- Diterpene (2 isoprenes) – analgesic, expectorant, decongestant, antiseptic, antiviral and bactericidal
- Sesquiterpenes – balancing

Group 2 – Oxygenated Hydrocarbons

- Esters – relaxing
- Aldehydes (aliphatic) – relaxing
- Aldehydes (aromatic) – mildly stimulating
- Ketones – relaxing
- Alcohols – stimulating
- Phenols – stimulating
- Oxides – mildly stimulating

Group 3 – Miscellaneous

- Acids – mildly stimulating
- Lactones & Coumarins – balancing and calming
- Ether – anaesthetic
- Furocoumarin – antifungal and antiviral (These need to be used with caution, an example of which is Bergaptene, because they are highly phototoxic)

An understanding of the chemical components of essential oils is important for two reasons:

1. Essential oils that share a high proportion of common constituents generally blend well together; for example, clary sage and bergamot combine well because they both contain a high proportion of linalyl acetate (an ester) even though they belong to different botanical families and odour groups.
2. The chemical make up of an individual oil, or blend of oils, can also provide a very useful key to its potential properties on a physiological and psychological level.

An analysis of the eleven chemical families (L'Aromathérapie Exactement, Franchomme & Pénéoël, 2003) showed that each had either an overall stimulating, sedating or balancing effect. To make this analysis, essential oils were sprayed between two electric plates, and their chemical properties noted. It was found that chemical components with a negative charge, which were attracted to the positive pole, showed stimulating, tonic and warming properties. Components that were attracted to the negative pole showed relaxing, cooling and anti-inflammatory properties.

Therefore, the effect of individual essential oils and their blends could theoretically be predicted according to their major constituents and their polarity. Generally, it was found that esters were the most relaxing

of the chemical families whereas phenols were the most stimulating. Also certain properties have also been found to be generally associated with a particular chemical group. For example, esters are considered to have good anti-inflammatory and fungicidal properties and phenols are said to display excellent antiseptic and bactericidal properties, although they can also cause skin irritation. Details of the main chemical families found in the oils can be seen overleaf.

The most common compounds are Terpenes, Esters, Aldehydes, Ketones, Alcohols, Phenols and Oxides.

Terpenes are a combination of hydrogen and carbon atoms and they have many different properties. There are three forms:

1. Monoterpenes
2. Sesquiterpenes
3. Diterpenes

Pinene, Limonene and Terpinene are common terpenes, they are not water soluble but are general antiseptics. They have little or no aroma content and tend to have a quick oxidising effect and can cause a cloudy appearance. Some terpenes can cause skin irritation and so should be used in a base oil when applied to the skin. Monoterpenes are expectorant, anti-fungal and possess some antiseptic qualities.

Esters have fungicidal, anti-inflammatory and antispasmodic properties, and have a calming effect, for example, Lavender contains the ester Geranyl acetate. Generally, esters do not have any harmful effects but use Birch and Wintergreen with caution as they contain the only hazardous ester, methyl salicylate. Esters are the constituents that acids are nearly always linked to in essential oils. An organic acid becomes an ester when it is combined with an alcohol. It is the suffix 'ate' which indicates an ester.

Aldehydes are generally found in essential oils with a lemon aroma. They have anti-inflammatory properties, relax the central nervous system, reduce temperature, are anti-infectious, and will raise depressed spirits as well as have a sedative effect. It is these that often give the oil their aromatic effect and it is the suffix 'al' which is added to words to indicate an aldehyde.

Ketones must be treated with some care as they are potentially neurotoxic, but it does depend on the ratio of the ketone to other chemical constituents within the oil. Wormwood, Tansy, Mugwort, Pennyroyal and Common Sage are examples of this and it is also why they are not easily available because they contain thujone and pulegone both of which are ketones of a toxic nature. Always dilute well in carrier oil. But Ketones are valuable because they help congestion by easing the flow of mucous. Plants that are rich in non-toxic ketones are very good for respiratory problems.

Alcohols should not be confused with the alcohol in wines and spirits which is called ethyl alcohol. Alcohols in essential oils have antiviral properties, are a good general nerve tonic, have parasiticide and fungicide functions and will uplift spirits. Lavender contains a great deal of linalool and geranium and rose contain geraniol.

Phenols are very strong antiseptics and can stimulate the central nervous system. But essential oils high in phenols must be used with care and well diluted because they may be an irritant to the mucous membranes and to the skin and in large doses they can be stupefying, Eugenol is used as a local anaesthetic. The suffix 'ol' is used to signify a phenol but be careful as it is also used for alcohols.

Oxides have a good expectorant effect and are generally found in camphoraceous plants such as Rosemary, Tea Tree, Cajeput, and Eucalyptol which is from the eucalyptus plant. The suffix 'oxide' will usually denote its chemical type but there not really very many oxides in essential oils. Those that do exist need to be treated with respect as they are very powerful.

These chemical mixtures in essential oils are all in specific proportions and this proportion is what gives a plant and its oil its therapeutic effect. A chemical similarity, or the extraction of just one part will alter the entire therapeutic balance of the oil and change its effect.

Glossary

Atom – is the smallest portion of an element that can enter into chemical change, and cannot be further subdivided without destroying its identity. The modern view of an atom is of a positively charge nucleus (made up of electrically neutral neutrons and positive protons) surrounded by a 'cloud' of negatively charged electrons.

Electron – is the negatively charge particle of very small mass (1/2000 that of a proton) that orbits around the nucleus in the atom.

Ion – An atom or molecule that has either lost of gained one or more electrons to give a charge particle, called an ion.

Molecule – is the smallest particle of compound that can exist in the free state.

Proton – is the positively charged particle in the nucleus of the atom, designated one unit mass; the number of protons present is the element is its atomic number.

Inorganic chemistry – is the chemistry of the elements other than carbon.

Organic chemistry – is the study of the chemistry in which oxygen combines with another element or compound, or in which hydrogen is removed from a compound. It is also used as a generalised term for the loss of one or more electrons from an atom, ion or molecule.

A recommended book to help understand this vast topic is: 'Essential Chemistry for Safe Aromatherapy' by Sue Clarke, Churchill Livingstone, 2005, ISBN 0 443 06485 7

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Chemical Constituents

This table shows the chemical constituents of the essential oils studied on this course. For each oil, the major chemical groups and their approximate value are shown, linked to the principal effect of the oil. These are standard samples but do bear in mind that the chemical make-up of essential oils can vary enormously depending on their source.

	RELAXING			BALANCING	STIMULATING				
	ESTERS	ALDEHYDES	KETONES	SESQUITERPENES	OXIDES	ACIDS	MONOTERPENES	ALCOHOLS	PHENOLS
Basil	8%				7%			64%	3%
Benzoin	80%	2%			17%				
Bergamot	28%						UP TO 52%	13%	
Black Pepper				7%			77%		
Cedarwood (Atlas)			3%	86%				10%	
Chamomile (Roman)	UP TO 70%			4%			10%	35%	
Chamomile (German)				47%	19%				
Clary Sage	72%			3%				14%	
Cypress				3%			UP TO 77%	10%	
Eucalyptus (Globulus)					96%		4%		

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	RELAXING			BALANCING	STIMULATING				
	ESTERS	ALDEHYDES	KETONES	SESQUITERPENES	OXIDES	ACIDS	MONOTERPENES	ALCOHOLS	PHENOLS
Eucalyptus (Citriodora)	3%	82%			2%			9%	
Eucalyptus (Smithii)				√	√				
Eucalyptus (Dives)			√				√		
Fennel (Sweet)		2%	14%				2%		77%
Frankincense	UP TO 10%						UP TO 50%	UP TO 12%	
Geranium	30%		6%				2%	54%	
Ginger		3%		60%	5%		15%		
Grapefruit							88%	3%	
Jasmine	70%							8%	
Juniper				2%			70%		
Lavender	43%			2%	6%		37%		
Lavender Spike			√					√	

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	RELAXING			BALANCING	STIMULATING				
	ESTERS	ALDEHYDES	KETONES	SESQUITERPENES	OXIDES	ACIDS	MONOTERPENES	ALCOHOLS	PHENOLS
Lavandin						√		√	√
Lemon							80%		
Lemongrass		74%					3%	10%	
Mandarin							89%		
Marjoram (Sweet)				2.4%			30%	52%	
Myrrh				UP TO 32%				43%	
Neroli	13%						29%	UP TO 40%	
Orange (Sweet)	3%	UP TO 39%	5%				UP TO 95%	UP TO 15%	
Orange (Bitter)				√			√		
Palmarosa	10%			2%				83%	
Patchouli				UP TO 60%				25%	
Peppermint			UP TO 40%				6%	UP TO 48%	
Petitgrain	75%							UP TO 40%	

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	RELAXING			BALANCING	STIMULATING				
	ESTERS	ALDEHYDES	KETONES	SESQUITERPENES	OXIDES	ACIDS	MONOTERPENES	ALCOHOLS	PHENOLS
Rosemary			13%				69%		
Rose Absolute		UP TO 38%						UP TO 93%	3%
Sandalwood				3%				68%	
Tea Tree				2%	3%		36%	48%	
Thyme							40%	50%	
Vetivert			12%	6%		5%		20%	
Ylang Ylang	UP TO 16%			16%			UP TO 47%	20%	

(The Complete Illustrated Guide to Aromatherapy, Julia Lawless, pages 212-214)