

## Aromatherapy in Personal Care Products

SITARAM DIXIT

Senior Manager — Fragrance Applications  
International Flavours & Fragrances India Limited

**E**ssential oils are the link between the world's oldest medicinal tradition of Ayurveda to the exciting new breakthrough of aromatherapy in modern times. Despite the original positioning of aromatherapy as a part of ayurvedic medicinal practice, it is now regarded as an independent alternative therapy, with additional cosmetic benefits. This paper traces the origins of the art of using aromatic essential oils to ancient India's ayurvedic philosophy and its guiding principles. The paper details the basics of aromatherapy, the merits and demerits of its practice.

Education through stories gives us knowledge, along with entertainment. Stories register easily in our brain with a recalling power that no amount of lectures on scholarly topics can achieve. Tales can inspire an idler to action, can show light to a fool and bring joy to a sad heart. Let us also begin our topic today with a short story from our Hindu scriptures.

Three thousand years ago in the ancient city of Taxila (now in West Punjab, Pakistan) there existed a *Gurukul* established by Acharya Atreya a specialist teacher in Ayurveda. Entry to the college was tough and only the best pupils gained admission. One day three ambitious boys approached Acharya Atreya and expressed their desire to learn medicine. Atreya agreed to absorb only one student strictly based on their performance in the entrance test he would administer. All the candidates scored equal marks and Atreya was in a fix. To break the deadlock he then asked the boys to go to the forest and come back with a plant or part there of, that did not have any medicinal value.

The first candidate after a couple of hours brought a cluster of jungle weeds, the second one brought a bundle of thorns. The third candidate after a week's intense search came back empty handed. He explained that in spite of his best efforts he was not able to find a plant that lacked medicinal use.

Acharya Atreya was pleased with the answer. He explained the gist of the celebrated book on Ayurveda,

the *Charka Samhita*, that every substance in the world possesses some medicinal value, provided it is used correctly, and admitted the student. The selected candidate was none other than Jeevaka, the eminent pedologist, & neurologist of ancient India.

The World Health Organisation (WHO) defines health as a state of physical, mental and social well being and not merely the absence of disease or infirmity. This closely resembles the definition of Ayurvedic texts almost 3000 years old. The *Charka Samhita* defines Ayurveda as:

*Hitahitam Sukham Dhukam Ayu Tasmay Hitahitam |  
Manam Cha TadanCha Yabhoktham Ayurveda Sa Ucchate ||*  
- Bhagavan Dhanvanthari

Ayurveda is a science that treats not only what is advantageous but also that is harmful to our body, the happy and unhappy states of life and explains all related matter that is good and bad to humans.

Ayurveda is closely related to Indian philosophy and is derived from the Atharvaveda. Ayurveda literally means 'knowledge of life.' The Hindu God, Lord Brahma taught the guiding principles of Ayurveda to his son, Prajapati, and he, in turn, taught it to several sages. Rishi Agnivesh was the first sage to document the teachings. The Agnivesh manuscript edited by Charka is now known as *Charka Samhita*.

The aim of ayurveda is not only healing of the sick, but also prevention of illness and preservation of good life. The emphasis on maintaining good health (*swasthavartha*) is crucial to ayurveda. The daily routine (*dinacharya*) and seasonal rules (*ritucharya*) are designed to keep one healthy. Diet, physical exercise, personal hygiene and mental health are all important. Ayurveda address every aspect of our life, by blending daily prescription for good health mind, body and spirit into our routine, so that we experience optimum health and well being.

Life is defined as the union of body senses, mind and soul. Indian philosophy states that there can be no

life if this combination does not exist. Everything in the universe is composed of five elements (*Panchamaha-bhutas*). They are *Prithivi* (Earth), *Jala* (Water), *Vayu* (Air), *Agni* (Fire), and *Akasha* (Ether / Space). These combine into three *doshas* (*Tridosha*), *Vata*, *Pitta*, and *Kapha* or bioenergetic forces that govern our health and determine our physical constitution (*Prakarti*). Every individual is controlled by the three *doshas* to different degrees, with one or two *doshas* dominating. *Doshas* not only determine our constitution and illness, but also our features, body types, our liking and dislikes. In short, every aspect of our life is governed by the *doshas*.

*Vata* consists of a combination of *vayu* & *akasha* (air & ether /space), *pitta* consists of *tejas* & *jala* (fire & water), and *jala* & *prithivi* (water & earth) form *Kapa*. When all the three *doshas* are in balance, or in equilibrium, we possess good health, growth, strength, complexion, mental stability and happiness. The balance of the *doshas* depends on correct diet, exercise, good digestion of the food eaten, healthy elimination of body wastes, and a balanced emotional spiritual health. When the three *doshas* are unbalanced, they cause disease.

The three main cause of this imbalance and cause of diseases are:

- Neglect, abuse or too much use of our sense organs.
- Wrong decisions made by our body, mind and speech
- Effect of the seasons and environment.

Correct perceptions only happen by the co-ordination of the senses with our mind and soul. When external stimuli are in normal limits, the body responds within physiological limits suitable for our well being. When an external stimulus crosses the normal range they become stressful and the body responds abnormally. Ayurveda does not deny the existence of germs, but at the same time, it does not also accept it to be the main cause of diseases.

Ayurveda is useful for treatment of diseases in almost any condition, as it address the body as a whole. Treatment consists of four basic forms of therapy namely medicine or drugs, detoxification, diet and regulating lifestyles. Thus, ayurveda works in two

fundamental ways of prevention and cure. Prevention is normally achieved through personal hygiene, diet and lifestyles, use of special drugs and yoga.

Cure in ayurveda consists of internal medicine, external medicine and surgery. Internal medicine consists of purification of the body by emesis, purgation, enema, snuffing or inhalation and bloodletting (*Panchakarma* therapy). External medication includes massage, application of pastes and powders, various gargles, physiotherapy and oblation.

Ayurveda believes that body equilibrium is disturbed due to external stimulus and its interaction with nature. Natural products like herbs, extracts and essential oils are used to correct this imbalance and cure the malady. Herbal extracts containing essential oils in vegetable oil base, both for internal and external use, is popular in ayurveda. Inhalation and sniffing is a common form of treatment for various nervous disorders and respiratory ailments. Bathing in water containing essential oils/herbal extracts are a part of treatment especially for skin care and skin ailments.

This use of herbs in medicine spread from ancient Indian civilisation to other parts of the world. Egyptian civilisation made extensive use of natural oil for curing illness and enhancing self-esteem of users. Ancient Chinese claimed to cure almost every medical illness known to humans at that time by use of herbs and natural plant ingredients. The use of plant oils was also practised in Greece and Rome. Ancient Persians, too, used flavoured water distilled from roses and orange blossom and used them as remedies for sickness and as cosmetics.

This ancient system of herbal medicinal therapy with modern scientific understanding and experimentation forms the basis of aromatherapy.

Aromatherapy, as the name suggests, is a holistic therapy using fragrant essential oils to treat body and mind. External application of essential oil and the odour of fragrant oil re-balances the body systems to help aid relaxation, assist in healing and alleviate stress. Aromatherapy enables us to benefit from the therapeutic properties of fragrant essential oils. Essential oils derived from herbs retain the life force of the plants from where they are derived. This energy

is supposed to improve the physical and mental health of the user.

Aromatherapy is now regarded as an independent alternative therapy with additional cosmetic benefits. It claims to enhance beauty by means of internal harmony and general well being, in addition to treating tangible conditions through natural based cosmetics that make use of fragrances containing essential oils derived from plants.

Essential oils are produced by tiny glands at the petals, leaves, stems, roots, bark and wood of many plants and trees. Under normal natural conditions, they are released from the plant slowly to the surroundings. When heated or crushed these glands break releasing the plant aroma. Approximately 300 natural essential oils are now in use in aromatherapy. Aromatherapy oils are complex chemical compounds and are volatile by nature. They are neither greasy nor fatty. They are rich in terpenes, alcohols, phenols and aldehydes and do not leave any oily residue on skin. They are soluble in alcohol, vegetable oils and water.

Essential oils are extracted from plant parts by use of any of the following procedures.

- Pressing / Cold expression.
- Tapping.
- By enfleurage (absorption of the fragrant oil in a greasy oil and then separated by solvent extraction)
- Steam distillation.
- Water distillation.
- Hydro diffusion by application of gentle pressure during distillation.
- Alcohol extraction.
- Carbon dioxide extraction.
- Molecular distillation.

Essential oils are natural antioxidants and normally do not get rancid; however they generally react with water and oxygen. Once processed, the essential oils are stored closed tight in dark glass bottles, kept in a cool place away from direct heat and light. Essential oils are expensive as it takes huge amount of plant extract to produce a small amount of oil. About sixty

thousand rose petals are required make 30 gms of rose oil. Lavender oil is much cheaper as it is found in larger quantities in plant.

It is easy to spot the difference between good quality oil and a bad one. When a bottle of oil is kept on the table and the lid opened, it will give a whiff of its aroma. If one has to move closer to sniff it is poor quality oil.

Interest in the use of natural oils in treatment was pioneered by the French Professor, Rene Gattefosse who accidentally discovered the healing power of lavender oil, when he dipped his badly burnt hand in it. Within a short time, the burn healed without any blister formation or leaving a scar. Taking a cue from this experience, he carried out experiments with different essential oils on soldiers during the First World War and helped heal their wounds faster. Dr. Gattefosse scientifically proved that certain essential oils had the ability to penetrate human skin and heal damaged internal tissues. He further established that, depending on the user, essential oils on application to skin penetrated within an hour and reached the blood stream within twelve hours.

Dr. Jean Valnet, an expert on herbal medicine used a variety of essential oils to treat blisters, burns, psoriasis, cough, cold, headache, insomnia, eczema, mental stress, arthritis, cramps. Marguerite Maury, a French biochemist and beautician used essential oils in beauty and skin care treatments. Dr. Valnet also claimed many successful cures for serious illness like cancer, tuberculosis and diabetes with essential oils. Although Dr. Gattefosse coined the term aromatherapy in 1920, it was accepted as a form of treatment only after it was popularised by Dr. Jean Valnet, through his book '*Aromatherapie*' published in 1964.

Aromatherapy oils can be used in the following three ways. Every individual has to choose the method that suits his or her personality, as a method suitable for one may not be suitable for another.

1. Inhalation
2. Ingestion
3. Massage

Ayurveda generally followed a combination of all

the above methods. However, modern aromatherapy is based only on inhalation and massage.

Inhalation is the quickest way for the essential oil to enter our body. It is normally achieved by adding a few drops of essential oil to a warm bath water, inhaling on a tissue paper or by using an oil burner, vaporiser.

We know that in aromatherapy the benefit is contained in the essential oil's smell. The odour molecules from the oil pass through our nasal route and from the back of the throat past the areas of yellow brownish mucus membrane or nasal epithelium located high up in our nasal cavity. The nasal epithelium is made up of receptor cells that are linked to the part of the brain that gives an emotional effect and help lift depression.

The exact mechanism of how the odour of the oil gives emotional effect is not known. It is believed that when an odour is inhaled, it first acts on the rhinencephalon, which then directs the cerebrum and the central nerve function to regulate and balance the autonomous nerves.

Essential oils have a small molecular structure, which enables them penetrate the skin easily. A body massage with essential oils is the most effective and relaxing method of introducing essential oils into our body. Essential oils should not be used neat on the skin, but always mixed with a carrier oil. Good quality non-greasy vegetable oil or any lotion base is suitable as carrier oil. The most common ones include almond oil, olive oil, soybean oil, wheat germ oil, grape seed, and

**POPULAR ESSENTIAL OILS USED IN AROMATHERAPY**

<b>Essential oil</b>	<b>Properties</b>	<b>Uses</b>	<b>Product</b>
Lavender	Most versatile oil, calming, relaxation, healing antiseptic	Nervous tension, stress, depression, Insomnia, migraine headaches, acne, boils, burns, bruises, sinusitis, bronchitis, dermatitis, psoriasis, sunburns, sprain, rheumatism, arthritis	Products used for bathing, vaporiser, candles, skin care products
Camomile	Most versatile oil, calming, relaxation, healing antiseptic, anti-inflammatory	Nervous tension, stress, depression, Insomnia, migraine headaches, acne, boils, burns, bruises, sinusitis, bronchitis, dry skin inflammation, dermatitis, psoriasis, sunburns, sprain, rheumatism, arthritis	Products used for bathing, vaporiser, candles, skin care products
Rosemary	Aids concentration, refreshing, stimulating, improves blood circulation, encourages hair growth, disinfectant	Arthritis, mental fatigue, headache, dandruff, hair loss.	Products used for bathing, vaporiser, candles, hair care products
Bergamot	Antiseptic, revitalising, Skin care benefits	Nervous tension, stress, depression, Insomnia, migraine headaches	Products used for bathing, skin care products
Peppermint	Soothing stimulating, skin toning	Cough and cold, bronchitis, sinusitis, mental fatigue, headache, broken and weak nails, inflamed skin	Products used for bathing, skin care products
Patchouli	Calming, soothing, relaxing, refreshing, condition the hair	Nervous tension, stress, depression, anxiety, cuts and bruises, acne	Products used for bathing, vaporiser, candles, skin care products, hair care products
Sandalwood	Calming, relaxing,	Problem in throat, stress, depression, skin treatment, sore throat, mood swings, insomnia, nervous tension, skin ailments, acne, anti-septic	Massage oil, product used for bathing, vaporiser, candles, skin care products

jajoba oil. Ayurveda recommended use of freshly extracted pure coconut oil.

Aromatherapy benefits are effective when a trained massager carries out the therapy. We know that the lymphatic vessels run parallel to our blood vessels and are responsible to remove impurities and waste matter from our blood stream and muscle tissues. Unwanted toxins due to the rigours of our modern lifestyles, junk food, pollution and stress are accumulated in the muscle tissues.

When light finger stimulation is effected during a massage, the toxins are gently eased back into the blood stream and lymphatic system and are eliminated from our body during our normal excretory process. In short, massage makes the lymphatic system function more efficiently. Five drops of pure essential oil added to 10 ml of the vegetable oil base are normally used for this purpose. Higher dosage of essential oils is not recommended as essential oils used incorrectly, or in excess, can be toxic and cause irritation or burns especially for people with sensitive skins.

Essential oils are extremely powerful and should be used with care. Pregnant women, epilepsy patients, asthmatics, persons suffering with acute heart ailments should use aromatherapy only under medical supervision.

As mentioned earlier, essential oils should not be used neat on the skin, but always mixed with a carrier oil. It is advisable to do a patch test before regular use of aromatherapy products for people with sensitive skin.

If concentrated oil is splashed on skin or eyes, it should be flushed out with ample amounts of vegetable oil and medical help and advise sought thereafter. Aromatherapy oils should not be consumed internally, without expert medical advice.

The consumer who now leads a hectic way of life is no longer satisfied with purely aesthetic gains, but seeks to get additional properties and benefits. The growing disillusionment over synthetic drugs due to their side effects in the last 15-20 years has seen a plethora of personal care products available in the market. The products range from pure essential oils, body oils, hair oils, body lotions and creams, soaps, shower gel, shaving

products, *Eau de cologne*, etc., that claim to provide effective therapy for all kind of illness and states of our mind.

Aromatherapy products sold in the market promises to relax, revitalise and help mind and body. The claims made rarely mentions any details of conclusive clinical studies that were carried out with it. Are the essential oils available in quantities enough to have any effect? It is also possible that the promise made by clever advertising, only makes the consumer feel that a special wonder ingredient is more effective, when in fact it only has a placebo effect. Alternatively, are not these products selling only dreams? A product will taste success only if the therapeutic benefits they claim to offer are realised by the consumer during use.

Aromatherapy market will continue to grow and will become very common in mass marketed products in the near future. Due to increase mental and physical stress in our daily life, lack of space and privacy, every person looks forward to a few moments of peaceful contemplation, shutting themselves in the bathroom, and reaching out for products that give relaxation. As demand for aromatherapy product increase, essential oils will blossom into product categories offering additional advantages not presently available.

Not a day passes without reports of persons carrying out acts of destruction, bomb blasts, terrorist explosions, crime, forgery, corruption, committing suicides or bullying the weak, giving us all a feeling of helplessness.

Irritants we encounter in our routine include experiencing jam-packed national railways and public transport, uneven roads, slow moving traffic all leading to physical fatigue and mental stress accumulating to beyond endurance limits. You will admit in such a scenario, that if an aromatherapy toiletry can actually reduce the sick feeling and improve the living condition, it is worth taking the effort of manufacturing, marketing and using the product.

The world of natural ingredient is huge and exciting to be beneficially used. It is for all of us, as consumers, to question and understand the rational behind its usage in a product, so that in reality it enables us to lead a better quality of life. Don't you agree?