

## AYURVEDIC SYSTEM OF MEDICINE

Ayurveda is the art of daily living in harmony with the laws of nature. It is an ancient natural wisdom of health and healing, a science of life (*Dravyaguna vijnana*). The aims and objectives of this science are to maintain the health of a healthy person and to heal the disease of an unhealthy person. According to Ayurveda, health is a perfect state of balance among the body's three fundamental energies, or doshas (*vata, pitta, kapha*) and an equally vital balance among body, mind, and the soul or consciousness. In working to create health, Ayurveda takes into consideration these different levels of life and their interconnectedness. As a science of self-healing, Ayurveda encompasses diet and nutrition, lifestyle, exercise, rest and relaxation, meditation, breathing exercises, and medicinal herbs, along with cleansing and rejuvenation programs for healing body, mind, and spirit. Ayurveda is a Sanskrit word that means "the science of life and longevity."

Ether and air constitute *vata*, which is the energy of movement; fire and water constitute *pitta*, the principle of digestion or metabolism, the transformation of matter into energy; and water and earth make up *kapha*, the energy of structure and lubrication. When the male sperm and the female egg fuse at the time of fertilization, the *vata-pitta-kapha* factors from the parents' bodies that are most active and predominant at the moment, due to the season, the time, the emotional state, and the quality of their relationship, form a new individual with a particular constellation of qualities. In modern terms we speak of this blueprint of the individual as our inherited genetic code; from ancient times Ayurveda has called it our *prakruti* or individual constitution, a constant factor that does not change throughout life. Though the underlying structure of our *prakruti* remains a fixed reality, our home base or essential individuality, it is constantly bombarded by numerous forces. Changes in age and in our external environment, alternating heat and cold as the seasons pass, our endlessly shifting thoughts, feelings, and emotions, and the quality and quantity of the food we eat continuously affect us. Unhealthy diet, excess stress, insufficient rest or exercise, and repressed emotions all disturb our *doshic* balance.

Depending on the type of changes and the individual's underlying constitution, various ailments may develop:

- Some individuals experience an increase or aggravation of *kapha*, leading to conditions such as colds, congestion, sneezing, and allergic manifestations, as well as attachment, greed, and possessiveness.
- A *pitta* individual may become highly critical, angry, or perfectionistic, or may develop physical symptoms such as acid indigestion, heartburn, diarrhoea, dysentery, hives, rash, or acne.

- *Vata* imbalances may manifest as constipation, abdominal distention, sciatica, arthritis, or insomnia, along with psychological symptoms such as fear, anxiety, and insecurity.

All these illnesses and conditions, in addition to the countless others that lead to human suffering, are due to alterations in the body's inner ecology. These upset the individual's balance, creating subtle biochemical changes that ultimately lead to disease. This is why the Ayurvedic system of medicine speaks of the need for healing for every individual in every walk of life.

The unique and specific combination of the three doshas at conception is called one's *prakruti*, which means "nature." It is your psychobiological temperament. *Prakruti* does not change during a person's lifetime. As conditions change—due to weather, dietary choices, fatigue, stress, emotional state, exercise or lack of it—the balance of the doshas in our mind-body system also changes. This altered state of the doshas, reflecting the current state of our health, is called our *vikruti*.

OBSERVATIONS	V	P	K	VATA	PITTA	KAPHA
Body size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slim	Medium	Large
Body weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Low	Medium	Overweight
Skin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Thin, Dry, Cold, Rough, Dark	Smooth, Oily, Warm, Rosy	Thick, Oily, Cool, White, Pale
Hair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dry Brown, Black, Knotted, Brittle, Thin	Straight, Oily, Blond, Gray, Red, Bald	Thick, Curly, Oily, Wavy, Luxuriant, All colors
Teeth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Protruding, Big, Roomy, Thin gums	Medium, Soft, Tender gums	Healthy, White, Strong gums
Nose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Uneven shape, Deviated septum	Long pointed, Red nose-tip	Short Rounded, Button nose
Eyes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Small, Sunken, Dry, Active, Black, Brown, Nervous	Sharp, Bright, Gray, Green, Yellow/red, Sensitive to light	Big, Beautiful, Blue, Calm, Loving
Nails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dry, Rough, Brittle, Break easily	Sharp, Flexible, Pink, Lustrous	Thick, Oily, Smooth, Polished,
Lips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dry, Cracked, Black/brown tinged	Red, Inflamed, Yellowish	Smooth, Oily, Pale, Whitish
Chin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Thin, Angular	Tapering	Rounded, Double
Cheeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wrinkled, Sunken	Smooth Flat	Rounded, Plump
Neck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Thin, Tall	Medium	Big, Folded
Chest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flat, Sunken	Moderate	Expanded, Round
Belly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Thin, Flat, Sunken	Moderate	Big, Potbellied
Belly button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Small, Irregular, Herniated	Oval, Superficial	Big, Deep, Round, Stretched
Hips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slender, Thin	Moderate	Heavy, Big
Joints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cold, Cracking	Moderate	Large, Lubricated
Appetite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Irregular, Scanty	Strong, Unbearable	Slow but steady

Digestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Irregular, forms gas	Quick, Causes burning	Prolonged, Forms mucus
Taste, healthy preference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sweet, Sour, Salty	Sweet, Bitter, Astringent	Bitter, Pungent, Astringent
Thirst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Changeable	Surplus	Sparse
Elimination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Constipation	Loose	Thick, Oily, Sluggish
Physical activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hyperactive	Moderate	Sedentary
Mental activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always Active	Moderate	Dull, Slow
Emotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anxiety, Fear, Uncertainty, Flexible	Anger, Hate, Jealousy, Determined	Calm, Greedy, Attachment
Faith	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Variable, Changeable	Intense, Extremist	Consistent, Deep, Mellow
Intellect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quick but faulty response	Accurate response	Slow, Exact
Recollection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recent good, remote poor	Distinct	Slow and sustained
Dreams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quick, Active, Many, Fearful	Fiery, War, Violence	Lakes, Snow, Romantic
Sleep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Scanty, Broken up, Sleeplessness	Little but sound	Deep, Prolonged
Speech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rapid, Unclear	Sharp, Penetrating	Slow, monotonous
Financial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Poor, spends on trifles	Spends money on luxuries	Rich, Good money preserver

According to Ayurveda, health is not simply the absence of disease. It is rather a state of balance among body, mind, and consciousness. Health consists of a balanced state of the three humors (*doshas*), the seven tissues (*dhatu*s), the three wastes (*malas*), and the gastric fire (*agni*), together with the clarity and balance of the senses, mind, and spirit.

The seven *dhatu*s crucial to the development of a healthy individual are:

1. *Rasa* (plasma or cytoplasm) contains nutrients from digested food and subsequently nourishes all tissues, organs, and systems.

2. *Rakta* (blood) governs oxygenation in all tissues and vital organs and thus maintains life-function.
3. *Mamsa* (muscle) covers the delicate vital organs, performs the movements of the joints, and maintains the physical strength of the body.
4. *Meda* (fat) maintains the lubrication of the tissues and serves as insulating material to protect the body's heat.
5. *Asthi* (bone and cartilage) gives support to the body's structure.
6. *Majja* (bone marrow and nerves) fills up the bony spaces, carries motor and sensory impulses, and facilitates communication among the body's cells and organs.
7. *Shukra* and *artava* (male and female reproductive tissues) contain the pure essence of all bodily tissues and can create a new life.

The three waste products (*malas*) are faeces, urine, and sweat. The body must be able to produce these in appropriate amounts, and to eliminate them through their respective channels. *Agni* is the biological fire or heat energy that governs metabolism. It can be equated with the digestive enzymes and metabolic processes involved in breaking down, digesting, absorbing, and assimilating our food. In addition to these bodily factors, the senses, mind, and spirit also play a vital role in maintaining good health.

Principle and technique of Ayurvedic treatment: -

When the doshas are aggravated because of poor diet, unhealthy lifestyle, negative emotions, or other factors, they first affect *agni*. When *agni* becomes weakened or disturbed, food is not properly digested. The undigested, unabsorbed food particles accumulate in the gastrointestinal tract and turn into the toxic, sticky substance called *ama*. In the next stage of the disease process, *ama* clogs the intestines, overflows through other bodily channels such as the blood vessels, and infiltrates the bodily tissues, causing disease. *Ama* is thus the root cause of disease. The presence of *ama* in the system can be felt as fatigue, or a feeling of heaviness. According to Ayurveda, disease is actually a crisis of *ama*, in which the body seeks to eliminate the accumulated toxicity. Thus, the key to prevention of disease—once *ama* has begun to build up—is to help the body eliminate the toxins.

To remove *ama* from the system, Ayurveda employs many internal cleansing programs. One of these is a five-procedure program known as *panchakarma* ("five actions"). The *panchakarma* programs used at Ayurvedic treatment centers include pre-purification methods to prepare the body to let go of the toxins, followed by the purification methods themselves.

The first preparatory step is internal oleation. The patient is asked to drink a specific, small quantity of ghee (clarified butter) every day for several days. The ghee creates a thin film in the body's channels that lubricates them, allowing the ama lodged in the deep connective tissues to move freely, without sticking to the channels, to the gastrointestinal tract for elimination. Internal oleation is done for three to five days or even longer, depending on the individual circumstances. This is followed by external oleation in the form of oil massage (*snehana*) and sweating (*swedana*). Oil is applied to the entire body with a particular kind of massage that helps the toxins move toward the gastrointestinal tract. The massage also softens both the superficial and deep tissues, helping to relieve stress and to nourish the nervous system. Then the individual is given a steam bath, which further loosens the toxins and increases their movement toward the gastrointestinal tract. After three to seven days of these procedures, the *doshas* will have become well "ripened." At this point the physician will determine that the patient is ready to eliminate the aggravated *doshas* and accumulated *ama*. One of the five *karmas* or actions is selected as the most expedient route to eliminate the excess *doshas*. These procedures may include:

- Therapeutic vomiting (*vamana*)
- Purgative or laxative therapy (*virechana*)
- Medicated enema therapy (*basti*)
- *Nasya* – nasal administration of medicated herbs
- Purification of the blood (*raktamokshana*)

The traditional Ayurvedic program of healing has eight essential components:

1. Find out the person's *prakruti* (constitution).
2. Find out the *vikruti* (the present altered state of the doshas in the body).
3. Find out the cause or causes of the illness, such as diet, lifestyle, emotional patterns, quality of relationships, genetic predisposition, and so on.
4. As the first line of treatment, remove the cause.
5. Provide the proper regimen (diet, exercise, pranayama, etc.), according to the person's *prakruti*, *vikruti*, seasons, climate, age, and so on.
6. Provide a detoxification procedure: either palliation (*shamana*) or elimination (*shodana*, such as *panchakarma*).
7. Provide rejuvenation (*rasayana*) for the body in general, to increase immunity and to strengthen specific organs and tissues.

8. Provide therapies that are (a) antagonistic to the provoked *dosha* and (b) antagonistic to the disease, based on the principle that opposite qualities balance.

Plants recommended for consumption and external use according to different seasons to maintain the *doshas*: -

- Summer season: Apples, watermelons, plums, sweet lime, Shatavari, broccoli, cucumber, sandalwood, jasmine, etc.
- Autumn season: Sesame, wheat, tapioca, mung, cumin, coriander, fennel, etc.
- Winter season: Sesame, ginger, cinnamon, clove, barley, rice, corn, black pepper, liquorice, etc.
- Spring season: Ginger, black pepper, peas, spinach, okra, onions, garlic, pomegranate, etc.

Ayurvedic Herbal Formulations and Plants used: -

Ayurvedic treatment is non-invasive and non-toxic, so it can be safely used as an alternative therapy. There are a lot of plants, mainly herbs, which are used in preparing classical Ayurvedic formulations. Different types of Ayurvedic formulations are as follows [www.planetayurveda.com]:

1. *Ark* (Distillation of herbs) – These are distillates of herbs, that are very light in nature and easily assimilate in the system. E.g., Ajwain ark prepared from Ajwain i.e., *Trachyspermum ammi*, Gulab ark prepared from Indian cabbage rose, *Rosa centifolia*.
2. *Asava* & *Arishta* (Natural fermented liquid medicines) – These are prepared in the form of herbal juices or their decoctions to undergo fermentation by addition of sugar. *Arishtas* are prepared by boiling of herbs in water while *Asavas* are prepared using fresh herbal juices. E.g., Arjunarishta made up of fresh stem bark of Arjuna (*Terminalia arjuna*), Madhuka (*Madhuca indica*), Draksha (*Vitis vinifera*), Dhataki (*Woodfordia fruticosa*), and Jaggery (*Saccharum officinarum*); Kumaryasava composed of *Aloe barbadensis*, *Terminalia chebula*, *Ricinus communis*, *Myristica fragrans*, *Syzygium aromaticum*, *Woodfordia fruticosa*, *Piper cubeba*, *Nardostachys jatamansi*, jaggery and water.
3. *Avaleh* (Jams / Paste-like products) – These have a semi-solid texture and are prepared with the addition of jaggery, juices and decoctions. E.g., Drakshavaleha containing *Vitis vinifera* (Draksha), *Piper longum* (Pippali), *Glycyrrhiza glabra* (Yeshtimadhu), *Zingiber officinale* (Sunthi), *Bambusa arundinacea* (Vamshalochana), *Embllica officinalis* (Dhatri Phala or Amalaki), and honey and sugar (*Sarkara*).

4. *Churna* (Powders) – These are raw powders directly prepared from the herbs. The herbs are dried and powdered and passed through sieves of different sizes to obtain the required particle size. They may also include other herbs or minerals as mentioned in the ancient texts. E.g., Sitopaladi churna made from ingredients like cardamom or elaichi (*Elettaria cardamomum*), cinnamon (*Cinnamomum indicum*), bamboo (*Bambusa arundinacea*), long pepper (*Piper longum*), and sugar candy (khandasharkara).
5. *Ghrita* (Medicated clarified butter) – In this process, cow's milk is first churned to obtain the butter. The butter is then heated at high temperature to produce ghee. The ghee is then processed with required medicinal herbs to obtain *Ghrita*. E.g., Jatyadi ghrīt prepared using *Jasminum sambac* (jati), *Azadirachta indica* (neem), Patolapatra (*Trichosanthes dioica*), Katuka (*Picrorrhiza kurroa*), Darvi (*Berberis aristata*), Haldi (*Curcuma longa*), Sariva (*Hemidesmus indica*), Manjishta (*Rubia cordifolia*), Vetiver (*Vetivera zizanioides*), Mulethi (*Glycyrrhiza glabra*), Karanj (*Pongamia pinnata*), honeybee wax, purified blue vitriol, ghee and water.
6. *Guggulu* (Resins) – These are in the form of tablets that contain *guggulu* as the main ingredient. E.g., Triphala guggulu composed of resin of guggulu (*Commiphora wightii*), long pepper (*Piper longum*) and Triphala (fruits of *Phyllanthus emblica*, *Terminalia chebula* and *Terminalia bellirica*).
7. *Kwath / Kashaya* (Decoctions) – It is made from the decoction of herbs by boiling in water. E.g., Drakshadi kwath prepared from *Vitis vinifera* (Draksh), *Madhuca longifolia* (Madhuka), *Glycyrrhiza glabra* (Yeshtimadhu), *Symplocos racemosa* (Lodhra), *Gmelina arborea* (Kashmari), *Hemidesmus indicus* (Sariva), *Cyperus rotundus* (Musta), *Embllica officinalis* (Amla), *Coleus zeylanicus* (Hribera), *Nelumbium speciosum* (Padmakesara), *Prunus cerasoides* (Padmaka), *Pterocarpus santalinus* (Raktachandan), *Vetivera zizanioides* (Usheera), *Phoenix famifera* (Parushaka), *Nelumbo stellata* (Neel kamal), *Jasminum grandiflorum* (Jati pushpa), honey, sugar, lava and water.
8. *Pak* (Herbal granules) – It is also a paste-like preparation but slightly thicker than *Avaleh*. E.g., Musli pak, whose main ingredient is Safed musli (*Chlorophytum borivillianum*). Besides, it also contains coconut (*Cocos nucifera*), almonds (*Prunus dulcis*), chironji (*Buchanania lanzan*), jaiphal (*Myristica fragrans*), clove (*Syzygium aromaticum*), saffron (*Crocus sativus*), tambaru (*Xanthoxylum alatum*), Jatamanasi (*Nardostachys jatamanasi*), velvet bean (*Mucuna pruriens*), dalchini (*Cinnamomum verum*), elaichi (*Elettaria cardamomum*), bay leaf (*Laurus nobilis*), nagkesar (*Mesua ferrea*), soonth (*Zingiber officinale*), black pepper (*Piper nigrum*), long pepper (*Piper longum*), cow ghee, cow's milk, sugar, semal gold.



9. *Taila* (Medicated oils) – These are medicated oils produced from the seeds of a single herb and then processed with other herbs. E.g., Balaguduchyadi taila, whose ingredients include Bala (*Sida cordifolia*), guduchi (*Tinospora cordifolia*), Surapada (*Cedrus deodara*), Jatamansi (*Nardostachys jatamansi*), Amaya (*Saussurea costus*), Rakta Chandana (*Pterocarpus santalinus*), kunduru (*Boswellia serrata*), Ashwagandha (*Withania somnifera*), Sarala (*Pinus roxburghii*), rasna (*Pluchea lanceolata*), tila (*Sesamum indicum*).
10. *Vati* (Tablets / Pills) – These are prepared from one or more plants or minerals in the form of tablets. E.g., Arogyavardhini vati which includes ingredients like Shuddha Parada, Shuddha Gandhak, Loha Bhasma, Abhraka Bhasma, Tamra Bhasma, Shilajatu, Guggulu (*Commiphora wightii*), Chitrakmool (*Plumbago indica*), Neemba (*Citrus limon*), Katuki (*Picrorrhiza kurrooa*), Haritaki (*Terminalia chebula*), Bibhitaki (*Terminalia bellirica*) and Amalaka (*Embllica officinalis*).

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