



**PRINCIPLE ELEMENTS OF AYURVEDA RESPONSIBLE FOR PHYSIOLOGICAL  
FUNCTIONING: A CONCEPTUAL REVIEW**

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**ABSTRACT**

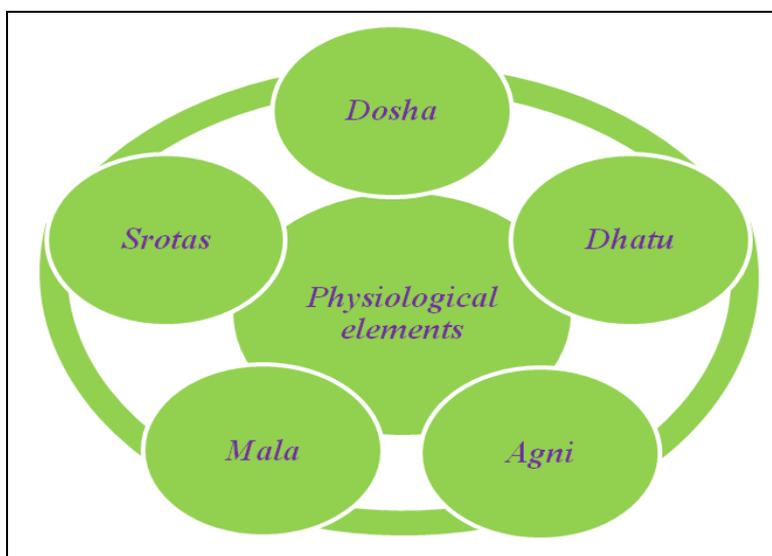
*Ayurveda* the science of health and medicine comprises of *Ayu* and *Veda*; science of life. *Ayurveda* describe treatment modalities of diseases along with guideline of healthy life style. The ultimate aim of *Ayurveda* is not only to treat diseases but it also emphasized on prevention of disease by following rules of *Swasthavritta*. *Ayurveda* believe that five elements contribute as constitutional component of an individual such as; space, air, fire, water and earth, the imbalanced in these prime element leads abnormal physiology i.e; diseases. *Ayurveda* described that balanced composite of these five elements maintain normal physiological functioning of body. According to *Ayurveda* there are various vital principles, which regulate and control the biological functions of the body and therefore *Ayurveda* describe concept of *Dosha*, *Dhatu*, *Mala*, *Srotas* and *Agni* as basics of human health. This article summarized various aspects of *Dosha*, *Dhatu*, *Mala*, *Srotas* and *Agni* as principle component of human health as per *Ayurveda*.

**KEYWORDS:** *Dosha*, *Dhatu*, *Mala*, *Srotas* and *Agni*.

**INTRODUCTION**

*Ayurveda* is science of medicine originated in India about 5000 years back. *Ayurveda* emphasized on prevention of disease than treatment of diseases. As per *Ayurveda* the human body works around some basics principles components such as; *Dosha*, *Dhatu*, *Mala*, *Srotas* and *Agni*. These basic elements play significant role towards the normal physiology of body.<sup>[1-4]</sup> The

various elementary components of body responsible for coordinating and directing all the substances and structures of the body, *Ayurveda* encompasses many concepts and there is a need to elaborate and discuss these concepts for the development of *Ayurveda* science. This article represents various aspects of *Ayurveda* principle.<sup>[2-5]</sup>



**Figure. Principle elements of Ayurveda responsible for Physiological functioning.**

### **Pathological Role of Dosha-Dhatu-Mala**

The *Dosha-Dhatu-Mala* contributes not only physiologically but also pathologically. The *Dosha* is responsible for natural body constitution and independently may cause diseases. The direct and indirect actions of *Dosha* manifested various physiological and pathological consequences. The vitiation of the *Dosha* affects *Dhatu*; thus *Dhatu* may be considered as habitat of *Dosha*. *Dhatu*s are responsible for the gross body structure and its nourishment. Another important constituent is *Mala* which are byproducts of metabolism and need to be expelled out. Diseases may also arise due to the accumulation of *Mala*. *Dosha* may also vitiate *Mala* resulting in accumulation of *Mala* and pathological prognosis. The traditional text of Ayurveda described that the imbalance of the *Dosha-Dhatu-Mala* leads to various diseases and therefore Ayurveda treatment approaches involve restoration of the *dhatu-samyak* to maintain normal physiological functioning.<sup>[2-6]</sup>

### **DOSHAS**

The basic principle of physical health as per Ayurveda lies around three *Doshas* namely; *Vata*, *Pitta* and *Kapha*. *Vata* is dry, light, clear and rough. *Pitta* is oily, intense, light, fluid and foul while *Kapha* is cold, heavy, stable and smooth. The five elements contribute towards the composite structure of the body namely; space, air, fire, water and earth; the ether and air together are responsible for *Vata Dosha* which governs movement of nerve impulses, circulation, respiration and excretion etc. The combination of fire and water forms *Pitta Dosha* which controls transformation or metabolism, this transformation converts foods into nutritional components for the growth and energy purpose while metabolism helps in excretory process. The water and earth combine together to form the *Kapha Dosha* which is responsible for body growth and it also protects mucosal lining. These three *Doshas* (*Vata*, *Pitta* and *Kapha*) in balanced proportions contribute towards the normal physiological functioning of the body.

The ratio of these *Doshas* varies from person to person therefore different persons possess different *Prakriti*. Ayurveda describes three states of *Doshas* responsible for normal and abnormal physiological functioning.

- **Balanced State:** All *Doshas* are present in their original proportions; this is the state of equilibrium.
- **Increased State:** In this state *Dosha* is present in a greater proportion more than normal proportion; also termed as aggravated state.
- **Decreased State:** *Dosha* present in a less than normal proportion; also referred to as depleted state. The imbalance of these *Doshas* leads to a disease condition; thus the maintenance of *doshic* composition is very essential for retaining normal health.<sup>[7-8]</sup>

### **DHATUS**

*Dhatu*s nourish the body, the balanced state of these *Dhatu*s is responsible for good health. *Dhatu*s are

responsible for the composite structure of the body. There are different types of *Dhatu*s like; *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Ashti*, *Majja* and *Sukra*; which resemble plasma, blood, muscle, fat tissue, bone, bone marrow and semen. *Dhatu*s offer basic nutrition to the body. *Dhatu*s are basically the body tissues which are responsible for the functioning of the systems and structure of the body. The description of various *Dhatu*s is as follows.

**Rasa:** *Rasa* forms the first layer of tissues, including main fluids in the body; plasma, lymph, milk and menstrual blood. *Rasa* contributes towards the liquid composition of the body and helps to perform various biochemical processes.

**Rakta:** *Rakta* means blood which is associated with *Vata*. *Rakta* performs the function of circulation; transport of oxygen and other essential components of the body from one part to another.

**Mamsa:** *Mamsa* contributes structurally and restores the body framework. It helps in contractile motion and also connects tissues with each other.

**Medas:** Fatty components (fatty tissue) of the body which are essential for body insulation, protection and lubrication. Healthy *Medas* support an attractive body structure while disturbance or excess of *Medas* is responsible for pathological progression.

**Ashti:** The basic structural component of the human body is *Ashti* (bone) which provides a definite body framework and strength for physical activity. The proper development of *Ashti* provides a lucid body posture and retains physical strength while lack of bone development leads to some inherent diseases.

**Majja:** *Majja* helps to remain relaxed and calm, the integrity and strength of the nervous system depends upon the nutrient value of food material transformed by *Majja*.

**Shukra:** The fluids essential for sustaining life. Ayurveda describes *Shukra* as semen; it contains the essence of all other tissues. *Shukra Dhatu* comprises of the male and female reproductive system; it is nourished by *Majja Dhatu*, its depletion may cause *Daurbalya*, *Mukha Shosha*, *Pandutva*, *Sadana*, *Shrama*, *Klaibya* and *Shukra Avisarga*, etc [8-10].

### **MALA**

*Mala* is the waste product of various metabolic activities and these waste materials are *Purisha*, *Mutra* and *Sweda* etc. *Purisha* (faeces) is the waste left after digestion of food in the intestine. *Mutra* is derived through the biological processes within the human body which involve stages of urine formation in the large intestine where fluids are absorbed. The system; kidneys, uterus, bladder and urethra are involved in the formation and elimination of urine and this process regulates fluid balance and maintains blood pressure in the body, while *Sweda* is a waste product associated with *Meda Dhatu*.

(fatty tissue) and eliminated through skin pores, controls body temperature and helps to regulate the electrolytic balance it involve use of *Sweda Vaha Srotas*.

Accumulation of *Malas* may lead various diseases thus proper excretion of *Malas* from the body is very essential; as per ayurveda there are two aspects of waste products *Mala* and *Kitta*. *Mala* is waste products of the body while *Kitta* is waste products of *Dhatus*. The improper excretion of *Mala* disturb physiological functioning of body and responsible for diseases associated with digestive functioning, Ayurveda emphasized various guideline which is to be followed for complete excretion of waste products from body. *Mala*

also referred as *Dushya* since it may disturb *Doshas* and leads pathological conditions.<sup>[10-11]</sup>

### SROTAS

These are channels which transport food, *Dhatus*, *Malas* and *Doshas* throughout the body. Blockage of *Srotas* may causes various diseases; *Srotas Vyadhi*. *Srotas* encompasses of *Sroto Mula*, *Sroto Marga* and *Sroto Mukha*. *Srotas* circulate the *Doshas* and *Dhatu* to the organs for performing various physiological functions. The *Doshas*; *Vata*, *Pitta* and *Kapha* also circulated through these *Srotas*.

**Table 1: Srotas and their roots**

S. No.	Srotas	Root of the Srotas
1.	<i>Prana Vaha</i>	<i>Hrudya</i> and <i>Maha Srotas</i>
2.	<i>Udaka Vaha</i>	<i>Talu</i> and <i>Kloma</i>
3.	<i>Anna Vaha</i>	<i>Aamashaya</i> and <i>Vama Parshva</i>
4.	<i>Rasa Vaha</i>	<i>Hrudya</i> and <i>Dasha Dhamanies</i>
5.	<i>Rakta Vaha</i>	<i>Yakruta</i> and <i>Pleeha</i>
6.	<i>Medo Vaha</i>	<i>Vrukka</i> and <i>Vapavahan</i>
7.	<i>Asthi Vaha</i>	<i>Meda</i>
8.	<i>Majja Vaha</i>	<i>Bony Joints</i>
9.	<i>Shukra Vaha</i>	<i>Vrushana</i> and <i>Shefa</i>
10.	<i>Mala Vaha</i>	<i>Meda</i> , <i>Basti</i> , <i>Vankshana</i> , <i>Pakwashaya</i> and <i>Sthoola Guda</i>

*Srotas* not only perform transportation of nutrition to different organs but also help in removal of waste products from body. *Srotas* found in gastro-intestinal tract, lymphatic system, arteries and in urinary tracts, they distributed throughout the body.<sup>[11-12]</sup>

### AGNI

*Agni* is responsible for metabolic and digestive activity of the body. The components of *Agni* cover whole path of elementary canal, liver and the tissue cells. *Agni* responsible for digestive process inside the body utilizes various enzymes which convert food material into nutritional components. Ayurveda describe various types of *Agni*; *Jatharagni*, *Bhutagni* and *Dhatvagni*. *Jatharagni* present in the stomach and duodenum. *Bhutagni* involve five basic elements while *Dhatvagni* present in *Dhatus*. *Agni* provides *Bala*, *Arogya*, *Ayu*, *Prana*, *Swasthyam*, *Varnam*, *Utsaha*, *Prabha*, *Ojha* and *Teja* to the body. The improper functioning of *Agni* leads: indigestion, loss of appetite, lethargy, constipation, diarrhea and loss of feeling of happiness.<sup>[13-14]</sup>

### Summary

The *Dosha* imbalance responsible for various diseases depending upon predominance of *Vata*, *Pitta* and *Kapha Dosha*. The various kinds of *Dhathus* and *Shrotas* support process of nutritional assimilation, metabolism and elimination. The improper functioning of *Dhathus* and *Shrotas* causes accumulation of toxins in the various tissues resulting in disease.

The treatment approach in Ayurveda involves promotion and preservation of health and curing of disease

condition including; removal of the causative factors of the disease and restoration of the *Doshic* balance. Ayurveda also emphasized role of *Swasthavritta* in preservation of good health by implying guideline of *Dinacharya* and *Ritucharya*. The treatment approaches also involve strengthening of *Dhathus*, elimination of accumulated toxins (*Mala*) and strengthen of *Agni*. Thus as per Ayurveda *Dosha*, *Dhatu*, *Mala*, *Srotas* and *Agni* contributes significantly towards the physiological functioning of body and improper functioning of these elements initiate disease prognosis; the basic principles of treatment as per Ayurveda lies in the fact that balanced functioning or equilibrium of *Dosha*, *Dhatu*, *Mala*, *Srotas* and *Agni* restore normal health.

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