

Spata dhatu (7 tissues)

The structural and supporting units of the body are called Dhatu in Ayurveda. In modern science, it related to tissues. So, Dhatu meaning in English is tissue. In ayurveda science, there are seven basic tissues that make the body and these tissues are collectively called Sapta Dhatu in Ayurveda.

There is a “GUEST AND HOST” relationship between doshas and dhatus.

Dosha denote the function or physiology where as dhatus denote the structure or anatomy.

Rasa Dhatu	Body fluids
Rakta Dhatu	Blood
Mamsa Dhatu	Muscular tissue
Meda Dhatu	Adipose tissue
Asthi Dhatu	Bony tissue
Majja Dhatu	Bone marrow and nervous tissue
Shukra Dhatu	Generative tissue (including semen and ovum constituents, stem cells)

Dhatu Agni

According to Ayurvedic Principles, each Dhatu has its own specific Agni (metabolic power). This is called Dhatu-Agni. This Agni relates to specific enzymes, chemicals and processes in the body that help to convert Dhatu to higher Dhatu or Upadhatu (sub-tissue or secondary tissue).

Upadhatu denote the secondary tissues produced after primary metabolism of dhatus.

These metabolic processes also give rise to waste products, which are called Mala in Ayurveda. These include nail, hairs, saliva, tear, ear wax, stool, urine, sweat etc.

Nutrimment of Sapta Dhatu

The food is giving nutriment to all tissues. The waste products of food are stool and urine.

Rasa Dhatu

Rasa Dhatu relates to body fluids in the body. It includes intracellular and extracellular fluids, plasma in the blood and fluid in the lymphatic system. It also includes all nutrients absorbed in the intestine.

Dosha	Kapha Dosha
Upadhatu	Stanya (breastmilk), Raja (menstrual fluid/blood)
Mala (Waste Product)	Sweat, Tears, and Saliva

Rasa is the essence of digested food.

Circulates all over the body by "vyána Vayu"

Main function is Prinana (nourishing) and production of blood.

Rasa Dhatu is responsible for providing nutrition to all cells, tissues, and organs in the body.

Rasavaha srotas originates from the heart and blood vessels.

Increased state

Excess salivation

Anorexia

Distaste in mouth, nausea

Obstruction of channels (Atherosclerosis).

Aversion to sweet taste,

Body ache.

Decreased state

Sound intolerance.

Palpitation

Involuntary movements.

Wasting

Fasciculation.

Hyper ventilation.

Fear / anxiety.

Exhaustion even by slight activity (cardiac?).

Impotency.

Premature grey hair and hair fall.

Anemia

Wrinkles around eyes.

Rakta Dhatu

Rakta Dhatu relates to blood components (RBCs) except plasma in the blood.

Rakta is derived from nutrients present in the Rasa.

Dosha	Pitta Dosha
Upadhatu	Shira (Blood Vessels), Kandara (Fascia)
Mala (Waste Product)	Pitta

Rakta Dhatu supplies oxygen to all structures in the body.

It is also responsible for maintaining strength, health, and happiness.

It supports the functions of skin and sense organs.

Responsible for sustenance of life.

Improves colour and complexion.

Nourishes muscle tissue.

Raktavaha srotas originates from liver and spleen.

Increased state

All skin diseases including leprosy, herpes, boils, etc.,

Dysfunctional uterine bleeding (DUB).

Burning sensation

Hepatitis.

Rheumatoid arthritis.

Gout

Hemorrhage.

Gingivitis

Stomatitis

Decreased state

Anemia

Dry skin

Desire for sour foods,

Changes in the consistency of blood vessels.

Mamsa Dhatu

Mamsa Dhatu relates to muscular tissues in the body.

Mamsa tissue is derived from nutrient in the Rakta in addition to Rasa.

Dosha	Kapha Dosha
Upadhatu	Muscle, Fat and Skin
Mala (Waste Product)	cavities

The origin of māmsavaha srotas is snāyu and tvak (ligaments and skin)

The main function of Mamsa Dhatu is to provide strength to the body and protecting internal organs.

Increased state

Tumours

Carcinoma

Lymphadenitis.

Goiter,

Cyst.

Decreased state

Wasting

Cramps

Dryness

Cracking sounds in joints,

Reduced consistency of blood vessel

Meda Dhatu

Dosha	Kapha Dosha
Upadhatu	Ligament and joints
Mala (Waste Product)	Sweat

Meda Dhatu relates to fat, cholesterol adipose tissues in the body.

It is derived from nutrients in Mamsa Dhatu in addition to Rasa, and Rakta.

Meda Dhatu is responsible for lubrication and providing strength and nutrition to the bones, joints, tendons, and ligaments.

Medas provides moistness, lubrication and nourishment to Asthi (bones & cartilage)

Medovaha srotas originates from kidney and omentum

Increased state

Obesity

Diabetes.

Hypercholesterolemia,

Decreased state

Wasting

Desire for fat and meat.

Wasting of muscles around joints.

Asthi Dhatu

Asthi Dhatu relates to bony and skeletal tissues in the body.

It is derived from nutrients in Meda Dhatu in addition to Rasa, Rakta, and Mamsa.

DOSHA	Vata dosha
UPDHATU	Teeth
MALA (Waste Product)	Nails and Hair

The main function of Asthi Dhatu is to protect delicate nervous tissue, brain, spinal cord and support bone marrow.

Asthivaha srotas originates from adipose tissue.

Increased state

Hypertrophy of bone

Extra teeth formation

Hypercalcemia

Decreased state

Osteoporosis

Rickets

Majja Dhatu

Dosha	Kapha Dosha
Upadhatu	Some say fluids in eyes
Mala (Waste Product)	Oily secretions of skin – include secretions of sebaceous gland

Majja Dhatu relates to the Bone marrow and nervous tissue in the body.

It is derived from nutrients in the Asthi Dhatu in addition to Rasa, Rakta, Mamsa, and Meda.

Majja dhatu is responsible for providing nourishment to Shukra Dhatu.

All functions of bone marrow, brain, and nervous tissue represent the functions of Majja Dhatu.

Majjavaha srotas originates from bone and joints

Increased state

Bone and joint diseases.

Feeling of heaviness in eyes and body

Ulcers

Decreased state

Giddiness.

Debility

Delusion

Demyelination

Shukra Dhatu

Shukra Dhatu relates to the generative tissue in the body. It is derived from nutrients in the Majja Dhatu in addition to Rasa, Rakta, Mamsa, Meda, and Asthi.

Dosha	Kapha Dosha
Upadhatu	No Upadhatu
Mala (Waste Product)	No mala

Shukra Dhatu is not only constituents of semen or ovum. It also includes all generative tissues and stem cells in the body, which are responsible for cellular regeneration and reproduction.

Sukravaha srotas originates from testes in man and from ovaries in woman.

Increased state

Increased sexual desire

Decreased state

Impotency

Infertility

Weakness.

The treatments of dhatus are done in relation to doshas except asthi dhatu and Vayu .All the doshas are directly proportional to their own dhatus but Asthi and Vayu are indirectly proportional to each other.

For example, when kapha increases, fat increases and vice versa But when Vāta increases, bone decreases.

Ojus

Ojus is the supreme essence of all the seven dhatus from rasa to Shukra and responsible for strength, vitality, and immunity.

Ojus gets formed from the food we consume and the quality depends on the rate of digestion and clear channels.

Even consuming good nutritious food with improper digestive powder can cause impairment of ojus.

Functions of Ojus

Ojus increases strength.

Provides stability and growth of muscles.

Ability to carry out all activities without any hindrance.

Improves the quality of voice and complexion.

Improves the function of sense organs.

Causes for impairment of Ojus

Excessive physical activity.

Not taking food properly.

Constant worry.

Intake of excessive dry food, Eating less quantity of food.

Prolonged exposure to sun and wind.

Fear, Grief, Anger.

Drinking the liquids that can cause excess dryness.

Keeping awake at night.

Excess elimination of blood, kapha, semen, feces, and urine.

Old age.

Injury to vital points (marma abhighatata)

Excessive sexual activity.

Types of abnormal ojus

Ojo visramsas

Dislodgement of ojus from the tissues

Dislodgement of ojus from the tissues can produce joints' looseness, weakness in the body provokes doshas to move other places from their standard seat, inability to perform routine functions, tiredness disturbs the functions of body, mind, and speech.

Change in quality of ojus due to doshas

Ojo Vyapat

Change in quality of ojus due to doshas can produce stiffness, feeling of heaviness in the body, swelling, discoloration, exhaustion, drowsiness and excess sleep.

Reduction in ojus quantity

Ojo Kshaya

Reduction in ojus amount can cause fainting, muscle wasting or emaciation of the body, mental distress, loss of sense, delirium, and death.

The healthy ojus is responsible for stronger immunity and can resist any disease, and one will be happy with a firm body and capable of doing any hard work.

When ojus gets abnormal, it can produce hypersensitivity, allergy, autoimmune disorders, etc.