



## Concept of Dietetics and its Importance in Ayurveda

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### Abstract

Human body requires food to provide energy for all life process, growth, repair and maintenance. A balanced diet contains different types of foods in such quantities and proportions that the need of the body is adequately met. Eating a well-balanced diet on a regular basis and staying at ideal weight are critical factors in maintaining emotional and physical well-being. In Ayurveda, diet forms the important component of life as it is included in the *Tri-Upastambha* (three pillars of life). Being supported by these three factors, the body is endowed with strength, complexion and growth, and continues up till the full span of life, provided a person does not indulge in such regimen as are detrimental to health.

Any material in the universe, according to Ayurveda is composed of five basic elements, the *Pancha Mahabhootas*, namely *Prithvi*(Earth), *Ap*(Water), *Teja*(Fire), *Vayu*(Air) and *Akasha* (Ether). The *Tridoshas* (Biological Humors) i.e. *Vata*, *Pitta* & *Kapha* which constitutes the body is also made up of *Pancha mahabhootas*. Each food article either has *Dosha* aggravating action or pacifying or balancing action on human body. To keep the homeostasis of *Doshas* (health), Ayurveda has described specific diet. Proper planning and indulging of the diet can maintains our body.

**Keywords:** Pathya; Panchamahabhoota; Tridosha; Prakruti; Viruddha ahara

### Introduction

The body grows, develops strength, and gradually matures from the time of conception. Proper time (*Kala Yoga*), favourable disposition of the nature (*Swabhava Samsiddhi*), excellence of properties of food (*Ahara Sausthava*) and absence of inhibiting factors (*Avighata*) are the factors responsible for the growth of the body [1]. Excellence of the ingested food is one among the causative factors which are responsible for the growth. The health is also the supreme foundation for the achievements of life. Therefore Ayurveda aims to maintain the condition of health. Health as well as diseases is dependent on various factors. Among these, food (*Ahara*) is the most important one [2].

The human body requires food to provide energy for all life process and for growth, repair and maintenance of cells and tissues. The dietetic needs vary according to age, sex and occupation. A balanced diet contains different types of foods in such quantities and proportions that the need of the body is adequately met. Eating a well-balanced diet on a regular basis and staying at an ideal weight are critical factors in maintaining the emotional and physical well-being. In Ayurveda Diet forms the important component of life as it is included in the three pillars of life (*Traya- upastambha*) [3]. Being supported by these three well regulated factors of life, the body is endowed with strength, complexion and growth, and continues till the full span of life, provided a person does not indulge in such regimen as are detrimental to health [4]. Ayurveda specified the characteristics of food in terms of quality, quantity and time which vary with age, constitution, digestive power, season, disease and also from person to person. One has to consume the diet, which is suitable to him in all aspects, and deviation from these may cause diseases. In addition to these, wrong cooking procedures, irregular timing, and consuming imbalanced and non-congenial food and not following the prescribed rules for preparing, preserving and eating food may also cause imbalance of health [5].

The improper digestion produces toxin (*Ama*) [6], which leads to majority of diseases, e.g. it causes Rheumatoid arthritis (*Amavata*) when it afflicts the joints. The relation between the faulty food & diseases are well explained like if one consumes only Sweet (*Madhurarasa*) in excess, he may develop diabetes [6]. If one regularly consumes articles that are heavy to digest, he may become obese. Nowadays, the diseases like rheumatoid arthritis, diabetes (*madhumeha*), obesity (*sthoulya*),

cancer (*arbuda*), liver diseases (*yakrit vridhhi*), insomnia (*nidranasha*), anxiety neurosis (*chittodvega*) and bronchial asthma (*tamaka swasa*) are highly prevalent and are labeled as lifestyle disorders. These lifestyle disorders are due to avoidable causes, mainly faulty diet habits and practices. Therefore, due consideration mentioned in Ayurveda should be given to all aspects of diet planning in the treatment of diseases and to maintain the health.

### Fundamentals of Dietary regimen (Pathya)

**Theory of five elements (Panchamahabhoota theory):** Any material in the universe, according to Ayurveda is composed of five basic elements, the *Pancha Mahabhootas*, namely Earth (*Prithvi*), **Water** (*Ap*), Fire (*Teja*), Air (*Vayu*) and Ether (*Akasha*) including human body and the food. Planning and indulging in the diet balancing these elements maintain the homeostasis of body.

**Theory of three biological humors (Tridoshas):** The human body is similarly constituted from *Panchamahabhootas*. The Biological Humors (*Tridoshas*) i.e. *Vata*, *Pitta* & *Kapha* which constitutes the body is also made up of *Panchamahabhootas*. As it is mentioned that; *Vata* is made up of *Vayu* and *Akasha mahabhoota*, *Pitta* is made up of *Agni mahabhoota* and *Kapha* is made up of *Jala* and *Pruthvi mahabhoota* [7]. Each food article either has *Dosha* aggravating or pacifying or balancing action on human body. To keep the balance of *Doshas* (health) disturbed due to various factors like season, age etc., the Ayurveda prescribes specific diet [8].

**Six basic tastes (Shadrasa):** The food contains six basic tastes and each taste has pre-dominance of particular elements of *Panchamahabhoota* [9] which exerts specific effect on the *Tridoshas* & *Dhatu*.

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- Madhura (Sweet) – Prithvi & Aap
- Amla (Sour) – Prithvi & Agni
- Lavana (Salt) – Aap & Agni
- Katu (Pungent) – Agni & Vayu
- Thikta (Bitter) – Vayu & Akash
- Kashaya (Astringent) – Prithvi & Vayu

It is mentioned that, drugs having sweet, sour and salty taste alleviate *Vata*, those having astringent, sweet and bitter tastes alleviate *Pitta* and those having astringent, pungent and bitter tastes alleviate *Kapha dosha* [10].

**Psychosomatic constitution (Prakriti):** Ayurveda provides unique classification of human being based on psychosomatic constitution i.e. Prakriti of individuals according to the variation of *tridoshas*. They are of 7 type viz., *vata* predominant *prakriti*, *pitta* predominant *prakriti*, *kapha* predominant *prakriti*, *vata-pitta prakriti*, *vata-kapha prakriti*, *pitta-kapha prakriti* and *Sama prakriti*. The *prakriti* approach is adopted for assessment of proneness of the disease, diagnosis and treatment to incorporate appropriate diet plan and regimen [11]. *Ayurveda* has well thought of the importance of kitchen and utensils in dietetics. The kitchen should be spacious, clean, airy but free from dust and dirt. The prepared food should be well protected from insects, animals and dirt, dust and properly covered.

Ayurveda explain in detail 8 attributes related to the food [12]

1. *Prakriti* – Qualitative characteristics of the food
2. *Karana* – Processing of food
3. *Samyoga* – Mixing
4. *Rashi* – The quantity
5. *Desha* – Habitat of the person
6. *Kala* – Time & seasonal variation
7. *Upayoga Samstha* – Variable digestibility of various food articles
8. *Upayokta* – The person who takes the food

### Diet and mind

Diet plays an important role in keeping our mind healthy. Considering the effect of food on mind following 3 classifications have been made:

1. *Satvik* diet – Ideal diet containing vegetarian, non-oily, non-spicy articles which are congenial to the body
2. *Rajasik* diet – Too spicy, hot, sour, salty that excites the mind
3. *Tamasik* diet – Too oily, heavy food that leads to lethargic mind

**Four forms of food:** Basically Ayurveda describes four forms of food preparations [13]

1. *Ashitam* – Eatables
2. *Khaditam* – Masticable Food
3. *Peetam* – Drinks, Beverages
4. *Leedham* – Licking Form

### Principles of diet:

1. One should take food in proper quantity which is hot, unctuous and not contradictory in potency and that too, after the digestion of the previous meal. Food should be taken in proper place equipped with all the accessories, without talking and laughing, with concentration of mind and paying due regard to oneself [14]. The quantity of food to be taken again depends upon the power of digestion including metabolism. The amount of food which without disturbing the equilibrium gets digested as well as metabolised in proper time is to be regarded as the proper quantity [15].
2. If the food article is heavy, only three fourth or half of the stomach capacity is to be filled up [16].
3. Shushruta advocates intake of food which is easily digestible, energetic, soft, and warm to be taken in proper quantity only when one is hungry [17].

**Incompatible Diet Viruddha Ahara:** The food with incompatible or contradictory qualities has poisonous effect on the body that aggravates *Tridoshas* intern leading to various disorders viz: *Gulma* (Lump), Fever, Allergic Dermatitis, Eczema, Abscess and other Skin diseases. It also destroys strength, vigour, memory, immunity etc [18].

Few contradictory combinations are

1. Fish or its soup along with milk [19]. A.S.Su.9/4
2. Milk or milk products with alcoholic beverages [20]. A.S.Su.9/6
3. Radish consumed with milk [21]. A.S.Su.9/7
4. Lotus stem with honey etc. [22]. A.S.Su.9/8
5. Equal quantity of honey with ghee [23]. A.S.Su.9/27

### Seasonal- dietetics

The Ayurveda prescribes specific diet for different seasons.

**Spring season** – Bitter, hot and astringent diet is advised while salty, sour and sweet food should be avoided. Wheat, barley, honey syrup, fruits like mango, jack fruit-etc. and meat of forest animals is advised [24].

**Summer season** – Due to hot climate aggravation of *pitta* occurs. Hence *pitta* pacifying cold, liquid, sweet and oily diet is advised. Excessive hot, spicy, sour salty diet should be avoided. Intake of rice, milk, ghee, sugar, grapes, coconut water, meat of forest animals are advised [25].

**Rainy season** – In this season aggravation of *vata* occurs due to cold climate, hence *vatashamaka* sweet, sour and salty food and drinks are preferred. The food should be hot, dry, fatty and easily digestible. Preserved rice, wheat, barley and mutton soups are advised [26].

**Winter season** – Increase of *Vata dosha* occurs due to cold, dry, chilly atmosphere in this season hence *vataghna*, *pittavardhaka* diet is recommended. Hot, sweet, sour and salty food, milk, sugarcane, rice, oils and fats are advised [27].

**Autumn season** – In this season aggravation of *Pitta dosha* occurs. Therefore, it is ideal to take ghee processed with bitter drugs; purgation, bloodletting, coolant, and light diet are advised. Bitter, sweet, pungent dominant diets are advised [28].

## Rules of eating

### Do's [29]:

- The food should be tasty, warm, qualitative, unctuous, and easily digestible.
- It should be eaten neither too fast nor too slow.
- The food should be eaten only when hungry, after the last meal has been digested.
- Should include all the tastes namely sweet, salt, sour, pungent, bitter and astringent in daily diet.
- Should eat food which is nourishing and suitable to particular constitution, mental and emotional temperament.
- It is best to focus on food while eating.
- One should eat in comfortably sitting posture.
- Food should be eaten in pleasant surroundings with utensils and preparation of individual's choice.

### Don'ts [29]:

- The food should not be contrary to each other in action. e.g. – fish and milk together, radish and milk together, honey and ghee in equal quantity.
- Eating should not be in a hurry.
- It should not be very slow either.
- Should not eat when emotionally upset.
- Too much use of any of 6 tastes namely sweet, salt, sour, pungent, bitter and astringent is not conducive for health.

## Disease specific diet

### Diabetes Mellitus (*Madhumeha*) [30]

- Seeds of barley, wheat, beans like green gram, fenugreek, horse gram etc.
- Fruits of bitter gourd and other varieties of gourd, green leafy vegetables like fenugreek, coriander.
- Black berry, *amla* (Indian goose berry) and other sour fruits.

Use of *triphala* is useful.

### Rheumatoid Arthritis (*Amavata*) [31]

1. Red variety of rice, barley, horse & green gram
2. Garlic, ginger, leave of ladyfinger, black pepper
3. Leaf and fruit of patola (a variety of cucumbar)
4. Warm water and light diet are beneficial in this condition

### Jaundice (*Kamala*) [32]

1. Red variety of rice, wheat, barley, green gram, beans
2. Banana, pomegranate, black berry, garlic
3. Sugarcane juice, buttermilk, radish, Indian goose berry

### Cardiac Disorders and Obesity (*Hridroga & Sthoulya*) [33]

1. Lekhanadravyas (trimming articles) like barley, red variety of rice, green gram, puffed corn

2. Fruits like banana, white gourd, mango, pomegranate, raisin, citrus fruits
3. Garlic, onion, dry ginger
4. Butter milk, honey, jaggery, meat soup etc

### Acid Peptic Diseases (*Amla Pitta*) [34]

1. Milk diet.
2. Indian goose berry, Pomegranate, resin, papaya etc.
3. Cereals like red variety of old rice, wheat, barley, green gram etc.
4. Small and frequent meals are preferable.

## Diet for elderly

The nutritional needs of the elderly are very different from those of young adults. As one grows older, the body's metabolic rate shows down and the activity levels decrease. Therefore, the elderly require less energy and correspondingly smaller quantities of food. However, even though the elderly need less energy, they need the same amount of or even more of vitamins and minerals than they needed as adults.

With ageing the pleasure of eating diminishes. This occurs because of a decrease in the sensitivity of the taste buds. The taste of food appears bland. Older persons often tend to add additional salt or sugar to their food as they are not able to perceive tastes like sweet or salty as younger persons.

As people age, there also tends to be an increase in the presence and number of chronic conditions such as hypertension, heart disease, diabetes, cancer, osteoporosis and dementia. These further compromise the quality of life in old age. Thus, a nutritious, well planned diet will help to delay the age related decline in body functions as well as the onset on chronic degenerative disease like diabetes, heart disease and hypertension and help to maintain good health in old age.

**Dietary Guidelines for elderly:** Include three food groups in every meal. All foods can be classified into three groups depending on their major functions i.e. energy providing food, body building food and protective foods. To ensure a nutritious diet, include one or more foods from each of the three food groups in every meal.

- Energy giving foods are mainly food containing carbohydrates and fats. Complex carbohydrates found in whole cereals, whole pulses, starchy vegetables and fruits like sweet potato, banana should be preferred to simple carbohydrate sources like sugar and honey. Sources of fat include vegetable oils, ghee and butter, While a moderate consumption of fat or oil is desirable, avoid excessive use in food preparations.
- Body building foods are protein rich foods like pulses, animal foods (eggs, chicken and fish), milk and milk products. They are the building blocks of muscles, organs and tissues and also help to repair worn out tissues. They help to prevent frailty and strengthen our immunity and therefore continue to be needed in old age too.
- Protective foods are rich in minerals and vitamin. They protect the body from infections and strengthens the immune system. These foods help to prevent deficiencies like anemia and prevent/delay the onset of chronic degenerative disease. Generally fruits and vegetables are rich in such protective nutrients and antioxidants.

While planning meals include one or more foods from every food group in every meal. To do so, however, it is not necessary to prepare elaborate meals with several dishes. Even a single dish may contain foods from the three food groups e.g. vegetable Khichri, vegetable Uthappam and Missi roti [35].

## Discussion and Conclusion

Human body requires food to provide energy for all life process, growth, repair and maintenance. A balanced diet contains different types of foods in such quantities and proportions that the need of the body is adequately met. Eating a well-balanced diet on a regular basis and staying at ideal weight are critical factors in maintaining emotional and physical well-being. In Ayurveda, diet forms the important component of life as it is included in the *Tri-Upastambha* (three pillars of life). Each food article either has *Dosha* aggravating action or pacifying or balancing action on human body. To keep the homeostasis of *Doshas* (health), Ayurveda has described specific diet. Proper planning and indulging of the diet can maintain our body.

In Ayurveda, many holistic and scientific approaches have been described about planning of the diet. The fundamental principles like *Tridosha*, *Prakriti*, the tastes, processing of food, the quality, quantity, and the rules regarding eating food if considered while incorporating the diet, one can keep away from many diseases of body and mind. As it is said in *Vaidyajeewanam* that, there is no need of medication if the person is in proper diet [36].

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