

# An Ayurvedic View on Food (Ahara) – A Review <sup>†</sup>

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**Abstract:** Food plays a crucial role both in healthy and diseased condition. Healthy life starts with healthy food. One should take food only depending on his digestive fire. In Ayurveda, six ritus (seasons) have been detailed and specific dietary and life style regimens are also well explained. There is a great inter-connection between ahara, gut microbiome and seasons. In Ayurveda, food supports and brings out the three qualities of mind namely, satvika (Quality of purity and harmony), rajasika (Quality of Passion and Manipulation) and thamasika (darkness, destruction). Satvik diet appears to be similar to a modern but prudent dietary pattern.

**Keywords:** ahara; ahara AND season; Ahara AND Ayurveda; gut microbiota

## 1. Introduction

Food plays a crucial role both in healthy and diseased condition. Healthy life starts with healthy food. In Ayurveda, ahara comes under one among the three supporting pillars of life. One should take food only depending on his digestive fire. In Ayurveda, six ritus (seasons) have been detailed and specific dietary and life style regimens are also well explained. There is a great inter-connection between ahara, gut microbiome and seasons. Espousing Ritucharya (seasonal regimen) could provide great opportunity to make aware of the subtleties of human gut flora and save the host from the pathological manifestations of seasonal variations and other diverse causes. Strict compliance to the seasonal regimens, resorting to seasonal foods etc., can change the gut microbiome in sync to one that is favourable to health promotion. The lifestyle and dietary factors can profoundly alter the commensal microbial communities, the dysbiosis of which can enhance pathogen susceptibility, inflammatory diseases and the current epidemic of metabolic health problems like non-communicable diseases. Modern science described ahara as per the nutritional value of its components like carbohydrates, protein, vitamins, minerals etc. They have not described about Hita-ahita (good and bad effects), Pathya-apathya ahara (do's and don'ts) etc. for each individual. In Ayurveda, such classification is based on the biological action of the ahara and their rasa(taste). For example, on the basis of carbohydrate content all type rice may be treated as one group. But Ayurveda considers freshly harvested rice is heavy for digestion. But old rice stored for over six months is considered to be light and more useful for an average person. Entire life of an individual depends upon food. If proper food is consumed it provides satisfaction, nourishment, firmness/steadiness of the body, strength, immunity etc. In Ayurveda, food supports and brings out the three qualities of mind namely, satvika (Quality of purity and harmony), rajasika (Quality of Passion and Manipulation) and thamasika (darkness, destruction). Satvik diet is best for maintaining health, good mind, physical strength, and longevity and also helps in calming and purifying mind and appears to be similar to a modern but prudent dietary pattern.

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## 2. Rasa (Taste) and Food

Healthy diet is vital for a healthy body and a healthy mind. In Ayurveda, an ideal diet incorporates the six rasas (tastes) prescribed in the classics. Word rasa refers to taste and which is perceived through tongue. According to acharya Vagbhata, rasas are 6 in number—madhura rasa (sweet), amla rasa (sour), lavana rasa (salty), katu rasa (pungent), tikta rasa (bitter), and kashaya rasa (astringent) [1].

### 2.1.1. Madhura Rasa

Madhura rasa is related to strength and stability of the body. By birth, human body is familiarized to this taste. It is beneficial to skin, hairs, sense organs and general growth of the body. Herbs having sweet taste increases breast milk, sooth dried throat, and also help in erectile dysfunction in men. When taken in excess, they cause obesity, obesity related diseases, and diabetes. Madhura rasa increases kapha dosha. Food and herbs of sweet taste are usually rich in carbohydrates or simple sugars and provide a lot of calories when consumed. Also, these calories provide plentiful energy. The desired level of calorie requirement will exceed, when these types of foods are consumed in excess and this excess number of calories are stored as fat. This excess accumulation of fat leads to obesity. Chronic obesity causes other metabolic disease like diabetes and also paves way for heart diseases. Milk, sugar, ghee, jaggery, sugar cane, ripe mango, grapes etc. have madhura rasa or sweet taste. When ghee, milk etc. are taken excess for a long time, it may lead to accumulation of cholesterol. So, Ayurveda acharyas suggests madhura rasa or sweet foods to those people who require a good supply of calories. These foods can be consumed excess by those persons who have heavy physical work, kids who are active in outdoor games, lactating mothers, pregnant women, improving patients and patients who need a quick supply of energy [2].

### 2.1.2. Amla Rasa

Amla rasa stimulates digestive fire, salivation, it is good for heart and increases the appetite. It is coolant on external application and relieves burning sensation. It brings alertness to the mind and increases attention. Brumhana (produces stoutness), Indriya bodhana (stimulates sense organs), Tarpana (satisfaction), Rochana (improves taste), pree-nana (nourishment), Kledana (moistness to the body), Anulomana (downward movement of flatus and faeces) etc. are other functions of Amla Rasa. According to Ayurveda, any entity when taken in excess will have harmful effects over the body. Similarly, when Amla rasa taken in excess hinders the normalcy of the body i.e., it leads to the looseness of body, loss of strength, blindness, pallor, itching, swelling etc. [3] Amalaki (*Embllica officinalis*) is an example for amla rasa substance. In Vedic literature, fruits of Amalaki were considered as the best among the fruits. Though all the amla rasa dravyas are said to enhance pitta, amalaki is the exception, being pitta samaka. Clinical studies and scientific literature prove that amalaki is an immune modulator, antioxidant, tonic, antidiabetic, anti-inflammatory, antimicrobial, hepatoprotective and has hypercholesteremic activity [4]. It has also proved rasayana effect. Amla rasa is very much essential for the absorption of some micro-nutrients like Calcium.

### 2.1.3. Lavana Rasa

Lavana rasa has a laxative effect and removes the obstruction from the strotas (channels of the body). It increases digestive activity, penetrates into the tissues, causes sweating and enhances the taste of food, so one can enjoy it. Five varieties of Lavanas are mainly used in Ayurveda amongst them Saindhava Lavana is the best. Saindhava Lavana is chemically considered as Sodium chloride/ Bay salt /Rock salt. Saindhava is aphrodisiac, slightly sweet, good for heart (or mind), mitigates all the three doshas (humors) of the body, easily digestible, good for health, ushna (hot) in potency, does not cause burning

sensation during digestion and kindles digestion [5]. Use of rock salt in food helps in alleviating blood pressure. It also helps in controlling weight by balancing minerals which hinder cravings and remove fat dead cells. According to modern medicine salt is considered as a causative or aggravating factor for cardiac diseases, hypertension etc. This may be due to artificially prepared salts and life style. Saindava lavana can be effectively used in such cases.[6]

#### 2.1.4. Katu Rasa

Katu rasa helps in curing diseases of the throat, leprosy, allergic rashes and other skin diseases, reduces the swelling improves digestion, improves circulations and clear the channels, encourages sweating, cleanses the blood and the muscles, reduces cholesterol. It brings clarity of mind and perception and increases attention. When taken excess, it causes fainting, tremors, thirst, depletion of sperm and strength etc. [7] Generally pungent substances are non-aphrodisiac except giloy, garlic, long pepper and ginger. Maricha(Black pepper) is having katu rasa and Piperine present in marica exhibited antibacterial and antitumour activities. Essential oil has antifungal activity. Water extract of leaves had insecticidal activity. Aromatic volatile oils, Mustard glycosides, Oleo-resins, Resins are pungent in taste.

#### 2.1.5. Tikta Rasa

Tikta rasa is a therapeutic advantage. It is hated by many but has plentiful therapeutic assets. It is dry, light and cool in nature. They usually have anti-inflammatory antibacterial, and anti-pyretic properties. It cures anorexia by enhancing the release of digestive secretions and enzymes, cures nausea, burning sensation and skin diseases and eliminates toxins from the body. It is found in Alkaloid, Anthraquinones, Sesquiterpenes and some Glycosides. Excess of use of bitter in foods causes nausea, dizziness and dry mouth, tissue wasting which lead to weakness [8]. Tikta rasa have strong wormicidal effect and also helps to withhold the mind and senses from objects of desire.

#### 2.1.6. Kashaya Rasa

Main effect of Kashaya rasa is, it causes dryness in the throat. When used internally or applied externally, astringent herbs stop bleeding and accelerate the wound healing process. For the same reason, astringent substances are used to prepare many gum care liquids as astringent helps to reduce the bleeding and gum swelling effectively. Purifies the blood by its anti-inflammatory effects, purifies the blood, causes squeezing and healing of ulcers, cold in potency. Helps the mind to become collected or organized. If consumed in excess, can cause extreme dryness of throat, blockage of food and fecal matter in the digestive system, gas build-up in the gut due to constipation, dryness and pain in the region of heart, obstruction to body channels, loss of vigor, virility, and depletion of quality and quantities of body tissues [9].

### 2.2. Ahara Vidhi (Regimen of Diet)

According to Ayurveda, order of meals to be taken is, it should be started with sweet foods and then can be moved to other tastes. It is conflicting to what people follow but quite effective. Because sweets are heavy to digest and if taken at the beginning of meals, the digestive fire will be stronger and gets digested easily and also gives nourishment to the tissues. Then Lavana, and Amla Rasa should be consumed to, stimulate digestion and enhance the flavors. In the end, Katu rasa and Kashaya rasa are advised to take which triggers absorption and clears palate [10].

## 3. Food and Mind

According to Karmayoga adhyaya of Bhagavat gita, from ahara creatures are born, the origin of ahara is from rainfall, from sacrifice rainfall originates, sacrifice has action as

its origin [11]. According to Bhagavat Gita, Sraddha-traya-vibhaga-yoga adhyaya, food is of three kinds- satvika ahara, rajasika ahara and thamasika ahara [12].

### 3.1. *Satvika Ahara*

Satva guna is the spiritual quality. Food that arguments life, firmness of mind, strength, health, happiness and pleasure, and which are succulent, buttery, substantial and agreeable are dear to those in whom sattva predominates [13]. Ayurveda suggests satvik diet for maintaining good health, mind and longevity. Sattvic foods include fresh fruit, pure fruit juices, milk, honey, sprouted wholegrains, land and sea vegetables, cheese, nuts, seeds, legumes, sprouted seeds and herbal teas. Foods which do not disturb stomach are considered as satvic food [14]. Following satvik diet helps a person to lead a stress-free life and makes a person less risk of illness to mental disorders like depression, anxiety, mood disorders, hyperacidity etc. People who eat a diet high in whole food such as fruits, nuts, whole grains, legumes and unsaturated fats are upto 35% less likely to develop depression than who eat less of these [15].

### 3.2. *Rajasika Ahara*

Rajasika guna is the quality of passion and manipulation. Foods which are excessively sour, bitter, salty, pungent, hot, dry and burning and that which produce sorrow, pain, and disease are rajasika ahara [16]. The mind-body equilibrium is ruined by Rajasika ahara and they make the mind agitated and uncontrollable. These foods make mind anxious, hyperactive, lack of concentration and affects sleeping patterns and develops insomnia, increases urges of anger. For those who are lazy and dull, it may be appropriate to advice consuming a larger quantity of Rajasika ahara. It may include excess salt, refined oils, refined grains, sour food, onion and garlic, deep fried, white rice, junk food, tea & coffee, green chilli, pepper etc.

### 3.3. *Thamasika Ahara*

Thamas is the quality of dullness or inactivity, apathy, inertia or lethargy [17]. Thamasika ahara increases the inner darkness and confusion. Foods that are fried and frozen, microwaved foods, fast foods, processed foods, let overnight foods, onion, meat, fish, eggs, alcohol, etc. are included under thamasik ahara and these foods effects the speed of our activities. These foods slow down our activity, these foods contribute to depressing us, numbing us and enhancing inertia. This type of food can be considered as unhealthiest food of all [18]. Thamasika ahara is better to be avoided, as it makes one dull, enhances anger and criminal tendency and hinders betterment of a society. Thamasika ahara is the unwholesome food of all.

## 4. Seasonal Regimen and Gut Microbiome

As per ayurvedic classics depending on the direction of movement of sun, year is classified into two ayana, as Uttarayana (northern solastice) and Dakshinayana (southern solastice). This is again classified into ritus, three ritus constitute one ayana. Six seasons constitute a year, namely, Shishira (winter), Vasanta (spring), and Grishma (summer) and Varsha (monsoon), Sharat (autumn), and Hemanta (late autumn). The first three are included under Uttarayana and last three under Dakshinayana[19]. The above seasonal changes are observed predominantly in Indian subcontinent as Ayurveda has its origin in India. During Uttarayana the seasonal changes from Shishira (winter) to Vasanta (spring) and to Grishma (summer) can be compared to mid-January to mid-July, when warmness and dryness in weather increases. It has an overall debilitating effect on environment, to which human being is also a part. During Dakshinayana, the seasonal changes from Varsha (monsoon) to Sharat (autumn) and to Hemanta (late autumn), compared to mid-July to mid-January, when cool sets, and due to which anabolic activity dominates over the

catabolic activity in the environment. For each season specific diet and regimen was also well explained in classics. These seasonal changes influence gut microbiota too.

By birth, human gut microbiota colonisation gets initiated and gets established by one year of age. This is mainly based on the mode of delivery and the method of infant feeding but continues to be influenced by diet, lifestyle, living environment, age, antibiotics and time. Though, diet is known to be the most significant factor of human gut microbiome composition. The gut microbial population of the individual regulates the nutritional value of food consumed, thermoregulation, the immune system and physiological functions. A healthy microbiota with beneficial strains dominating harmful ones aids host metabolic homeostasis whereas a dysbiosis trigger up its disease-inducing potential. The human gut is mainly occupied by Actinobacteria, Firmicutes, Proteobacteria, Verrucomicrobia, Bacteroidetes, and also with sparse populations of Cyanobacteria, Spirochaetes Saccharibacteria and Fusobacteria [20].

Diet modulates the gut microbiota composition in two ways by including viable microorganisms that resist digestion, colonise the gut and beneficially modulate the microbial composition (probiotics) and by providing non-digestible substrates that feed the intestinal flora and particularly nourish the growth and activity of beneficial microbes (prebiotics).

In case of Hemanta and Sisira ritu as the temperature falls down, the digestive fire gets flared up and the hunger and longing for ahara increases. The people will have strong digestive power, and hence, food taken should be quantitatively and qualitatively rich which otherwise could consume the bodily dhatus (tissues) itself. Hence, in Hemanta and Sisira (early and late winter), it is advised to take snigdha ahara (fatty foods), taila (oil), sura (fermented products) from jaggery, vasa (muscle fat), foods prepared out of nava annam (freshly harvested grains), Masha (black gram) Ikshu (sugarcane) and Godhuma (wheat) [21]. The phylum Firmicutes is typical gram-positive bacteria, the overgrowth of which is directly involved with obesity. So during these seasons, it is advised to practice swedana (sudation), abhyanga (oil massage), vyayama (exercise), udvartana (powder massage), and atapasevana (basking in Sun), [22] which can rightly be balancing to the gut flora changes and health consequences as it is proven that in spite of a high-fat diet, regular exercise could prevent obesity by changing the population ratio of major bacterial phyla, protecting the intestinal morphology and integrity, and thereby reducing inflammatory infiltrate. Like this following proper regimen said for each season gut microbiota can also be properly maintained.

## 5. Conclusions

Root cause for strength, complexion and vitality of living beings is ahara (food). It has the ability to control the disease pathology and promote health as well [23]. When consumed in proper way (samyak yoga), ahara maintains the body while ati (excess), mithya (improper), hinayoga (inadequate manner) leads to awful effects on body. The cautious incorporation of each rasa (taste) should be done in ahara in order to get the best benefits out of these rasas. Health is the supreme foundation of virtue, wealth, enjoyment and salvation. Ayurveda gives highest importance to maintenance of health and to promote positive health rather than to cure disease. Goal of Ayurveda is more on prevention rather than cure of diseases emphasizes on the ideal food to be consumed to attain and sustain good health. Food is most essential for a good life and the same food if taken improperly becomes the root cause of many diseases. All human beings should have a proper information about food and its importance to have better benefits from it.

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