

SUSRUTA SAYS ON DIET, REGIMEN AND HEALTH

Abstract

Health is the status of absolute equilibrium of the body, mind and soul . All the structural and functional components of the body, the mental faculties, when remain in balance qualitatively and quantitatively and the spiritual peace is also maintained then the individual can work smoothly . Diet and regimen have an important role in maintaining the physical and mental health.

Every living needs diet to maintain the body integrity. The natural demand of diet is expressed by hunger. For the other living organisms nature has fixed a class of diet and they take accordingly by searching and collecting from the surroundings. But the human beings, due to intelligence, take a wide range of diet some are collected from the nature directly and some are also prepared artificially according to their choice and availability. In most of the situations diet is prepared by combining more than one ingredient by mixing some additives to make it tasty and assimilable by the body .But , during the process of making the combinations and preparations sometimes some faults are made and it may cause some suffering to the user . Hence the Ayurvedic authors give importance on the process of selection, preparation and use etc. of the food.

An effort to discuss on the concepts of Susruta , the father of Indian Surgery, on the topic is considered eye opening .

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As per available concept , if the references are taken from the classics , it is observed that , the substances available in nature cannot be considered absolutely beneficial or harmful for the individual as the concept of tridosha one diet behaviour , if pacifies one of the 3 main components of the body it can cause aggravation of another one. But Susruta gives some instructions to the people in connection with diet and regimen with special reference to selection, combination and preparation. Some such concepts are considered “essential to be discussed” to create awareness in the society.

1. Water, ghee, milk , rice are stated to be homologous for the individuals naturally. These 4 things are available in the nature and used by the persons from natural sources since birth. One cannot live without water. Body needs water in huge quantity frequently as the major portion of the body is made of water (60-70% approx) [1]. An average weight healthy person needs about 2.5 -3.5 litre water daily in normal natural environment [2]. Water is provided by the nature abundantly which are collected and used by each living being as per their will and need. Among all livings human uses more water as they need it for different purposes like external as well as internal use.

Ghee is a product of milk which contains more quantity of fat. Ayurvedic classics give more importance in use of ghee saying it as beneficial for the health in all aspects.

Milk is another natural product that are available from different animal sources like cow, buffalo, goat, camel, human etc. A child takes mother’s (human) milk since the birth and uses it as principal / additional food upto a certain age. Ayurvedic scholars advice to consider cow’s milk when the term “milk (dugdha)” is mentioned . Cow’s milk is said to be the homologous food for the human after mother’s milk. As per the statement of the ancient scholars all can take milk irrespective of age, sex, body constituent, state (healthy/diseased). Though as per available statistics 60% - 70% of global population is intolerant to lactose [3] then also the ancient classics consider it as universally beneficial for each and every individual which needs reconsideration and study .

Rice is another essential need of the human beings. It is prepared by boiling the processed paddy grown up by cultivation . Rice is said to be of different types and the qualities of each type is nicely discussed by the Ayurvedic scholars. In this field contribution of Susruta is also remarkable. One cannot live without food and nature has provided the food in different forms most of which do not cause any harmful effect on the user.

2. Agni (fire) , Kshara (alkalies) and Bisha (poison) are harmful by nature . By the term Agni natural fire or the substances that are hot in nature can be considered. Fire, and hot substances, on exposure can cause burn . Even the food etc. that are hot by nature can cause harm to the user by increasing the heat and likely qualities in the body which is considered by the Ayurvedic classics as the “**Paittik vyadhi**”. Increase of Pitta causes harm to the Kafa which is the coolness maintaining component of the body.

Kshara is said to have the property to destroy the substance that comes to it’s contact. Hence it is generally used as a therapeutic agent in the conditions where there is need of destroying something, like growth etc. Regular and frequent use of kshara is strictly prohibited by the Ayurvedic scholars by saying it as harmful to the vitality.

Bisha is said as the substance that causes suffering and even end of the life. It is described as the substance directly opposite to the vitality (**Oja**). By getting exposure to it one may be the victim of suffering immediately or after some time from serious harmful sequences.

Considering all the above facts it can be said that, these groups of substances are harmful to the living beings by their nature, hence should not be included in the list of daily usables[4]

3. Some names are mentioned as the pathyatama (best among the useful substances) as follows [5]:

- In the Crops (anna): raktashali (red rice)(*Oroxylum indicum*), shastika(a variety of rice that is harvested in 60 days) (*Oryza sativa*), godhuma(bread wheat)(*Triticum sphaerococcum*) etc. (Susruta mentions 22 types of crops in the list).

Red rice is said to be a powerhouse of antioxidants , zinc, calcium , iron etc. which play crucial role in strengthening the body . It helps in weight gain , improves lung capacity , oxygen consumption , prevents arthritis , osteoporosis etc. and helpful in constipation , diarrhoea etc.[6]

Sashtika rice is mentioned to be anti- carcinogenic and beneficial for circulatory, respiratory , digestive and nervous system related diseases [7]

Godhuma (wheat) is considered to be a complete food by the modern scientists also. It contains different qualities in different forms .

- In the Meats (mamsa): harina, kuranga, mriga (different types of deers), kapota (pigeon) etc. (total 13 are mentioned in this group). Ayurveda praises the meats of the quick moving, non idle and forest animals and birds. The idea behind the concept is that, their meat is light, easily digestible and do not increase kafa. Hence to choose meat different types of wild deers and birds are advised to consider.

Deer meat (venison) resembles with beef and mutton in texture, colour, chemical composition etc . But it contains less fat. It contains vitamins B2, B3, B6, B12 that helps to regulate metabolism and reduces the risk of heart attacks and strokes. It contains low fat, high protein , zinc, haem iron and vitamin B [8]

Pigeon meat contains variety of fat, water soluble vitamins (A,E,B,D) and trace elements like iron, zinc, selenium, copper etc. It is also rich in minerals like sodium, potassium, magnesium, calcium etc. It is a good nutritional supplement, disease resistance enhancer, memory enhancer and slows down ageing [9]

- **In the Pulses:** mudga (green gram) (*Vigna radiata L*), masura (*Lens culinaris*)(lentil), chanaka(split chickpeas) etc. (total 11 are mentioned) .

The meaning of the Sanskrit word “mudga” is “which brings happiness”. It is rich in carbohydrates and minerals like Potassium, Magnesium, Calcium, Phosphorus, iron, vitamins like Carotene, Thiamine, Niacin, Riboflavin, Ascorbic Acid and Folic Acid.

Masur dal is a good source of Carbohydrates, Proteins, Fibres, Vitamins ,macronutrients, micronutrients, bioactive components etc. It is said to be antioxidant, anti cancer , hypolipidemic and antidiabetic [10]

Chanaka dal is said to be rich with Carbohydrate, Protein and Fat with very low glycemic index. It helps to maintain cholesterol level, reduces the risk of weight gain , diabetes and heart disease, good source of dietary fibre[11]

- In the vegetables (saka) – sunisannaka (*Marsilea quadrifolia*) , jivanti (*Leptadenia reticulata*), tanduliyaka (*Amaranthus spinosus* L), mandukaparni (*Centella asiatica*) (Indian pennywort) etc. (total 5 mentioned)

Sunisannaka is described as coolant, digestive, diuretic,. Beneficial for insomnia, mental disorders, skin diseases, hepatitis etc.[12]

Jivanti rejuvenates and nourishes the body and increases memory, longevity and immunity [13]

Tanduliyaka is said to be rich in calcium, iron, vitamin B and C . It is described as source of protein, good for bone health etc. It contains carbohydrates, dietary fibre, omega-3 and omega -6 fatty acids, amino acids, vitamins, minerals etc.[14]

Mandukaparni contains proteins , carbohydrates , dietary fibres, fats, vitamins A,B and C, minerals like iron, sodium, potassium, phosphorus, calcium, magnesium, phytoconstituents like flavonoids, polyphenols, tannins, carotenoids etc. It is said to be liver protective, immune stimulator, cardio protective and anti oxidant [15]

- In the ghee – cow’s ghee (goghrita). It primarily contains butterfat, water and milk proteins . It acts as antiviral, antioxidant, antifungal and anti bacterial. It is considered to have the effects like – promotion of digestion , artery protection, increase of bone density, immunity booster, improves eye health, helps in bone development, maintains the weight balance, provides nourishment, promotes healthy pregnancy and helps in wound healing[16]
- In the salt (lavana) – saindhava (rock salt) . It contains trace levels of minerals like, iron, zinc, nickel, cobalt, manganese and copper[17] .
- In the sour substances (amlabarga) – dadima (pomegranate)(*Punica granatum* Linn.). It contains glucose, ascorbic acid, gallic acid etc. [18]

Amalaka (Indian gooseberry) (*Emblica officinalis*) is the source of high concentration of natural antioxidants and vitamin C. It strengthens the immune system, nourishes the tissues and gently removes the toxins [19]

4. Pathyatama Bihar (Habits That Are Beneficial For All) : Brahmacharyya, nibata shayana, ushnodaka snana, nishaswapna and vyayama[20]

- **Brahmacharyya:** The term literally means “to stay in conduct within one’s own self. It refers to a lifestyle characterized by sexual continence or complete abstinence. Following the rules of brahmacharyya one can increase energy and vitality , can improve mental focus and concentration and can attain inner peace and contentment[21]
- **Nibata shayana:** The term means and indicates “sleeping in a place away from strong wind”. Exposure to strong air causes feeling of cold and may lead to manifestation of some diseases like cold, cough, sore throat , fever etc. Specially during sleep one gets more affected by the affect of strong air. Hence Ayurveda advice to select place that is protected from rain , humidity and direct exposure to air which may cause disturbance in sound sleep as sound sleep is essential for good health .
- **Ushnodaka snana (bathing with warm water):** Hot bath is a form of hydrotherapy and passive body heating. It is said to have the benefits like – soothing of sore muscles and joints, support cardiac health, relieve stress, prevents depression, improves sleep[22]. Warm water bath temporarily raises core body temperature and positively affect cardiovascular health, glycemic control and chronic low-grade inflammation[23]
- **Nishaswapna:** The term means and indicates “sleeping during night hours”. Nature has fixed the night for rest of all livings in the form of sleep. Night sleep helps in maintenance of weight, lowers the risk of serious health problems, like diabetes, heart disease etc., reduces stress, impoves mood. Proper night sleep rejuvenates the individual[24].
- **Vyayama:** It indicates conducting physical activity under prescribed rule. Exercise improve memory and brain function, helps in prevention of chronic diseases, helps to maintain weight, maintains blood pressure, improves cardiac health, improves quality of sleep, reduces anxiety etc.[25]

5. Some substances behave like poison when used in combination. Hence these combinations are advised to avoid always. Example – amlafala (sour fruits), lavana (salt), kulattha (horse gram), pinyaka(oil cake) , dadhi (curd), toila (oil), pista (rice powder), shushka saka (dry vegetable), aja- avi mamsa (meat of goat or sheep), madya (wine), chilchimatshya (one type of marine fish), godha (meat of one type of four footed reptile), barahamamsa (pork) with dugdha (milk)[26]

By mixing milk with sour fruit (substance) it is converted into curd immediately which is not beneficial for the system. It may cause some problem to the user.

The other combinations mentioned here needs further study to justify in modern light though can be justified in Ayurvedic light.

6. Some Other Examples of Harmful Combinations (Sanyogad Ahitani) [27] :

- naba ankurita dhanya (newly sprouted crop) or basa (animal fat), madhu (honey), dugdha (Milk), guda (jeggary), masha (black gram) with gramya, anupa jala (water of humid, watery area)
- mamsa (meat), dugdha (milk) or madhu (honey) with rohini or jatuka shaka (2 specific varieties of vegetables)
- madhu (honey) with ushnodaka (warm water)
- sura (one variety of wine), krishara (food prepared by cooking rice, dal, vegetable etc. combinely) and kshira (milk)
- matshya (fish) with guda (jeggary). Susruta has cited total 11 such examples
- The justification of the cited harmful combinations can be explained basing upon rasa, goona, viryya, vipaka etc. upto some extent. But needs more study to develop modern interpretation.

7. **Karmabiruddha ahara** : Sometimes, when two or more substances are combined they become harmful due to their opposite action (even though beneficial when used in single form). For example - kangsyabhajane dasharatra paryushitang sarpah (ghee keeping in bronze vessel for 10 nights), madhu choshnaurushne va (honey with hot substance / hot form or in summer or autumn season). Total 8 such combinations are mentioned by Susruta in this context [28]

Study and modern interpretation of these statements should be encouraged.

8. **Manabiruddhan** : Some substances, when mixed in equal quantity behaves like poison, whereas in unequal mixture can show benefit to the user. For example - madhu (honey) and jala (water); madhu (honey) and ghee; 2 types of Sneha (fat/oil); madhu (honey) and Sneha (oil/fat); jala (water) and sneh (fat/oil) etc. [29]

For better understanding of the effect further study is needed.

9. **Rasadi birodh**: Some combinations behave as harmful due to their opposite character in respect of taste, potency, status after digestion etc. [30]

- **Rasa** : veerya biruddha (opposition in taste and working potency) – Madhura (sweet) and amla (sour)
- **Rasa and Vipaka (Taste And State After Digestion)**: madhur (sweet) and tikta (bitter); madhur (sweet) and kashay (astringent) and amla and katu (pungent)
- **Rasa Biruddha (Opposition In Taste)**: amla (sour) and lavan (salt), tikta (bitter) and Kashaya (astringent)
- Rasa, veerya, vipak birodh (opposition due to taste, working potency and state after digestion) – amla (sour) and tikta (bitter) and amla (sour) and Kashaya (astringent)
- Veepak birodh (opposition in state after digestion): lavana (salt) and katu (pungent)
- Rasa veerya birodh (opposition due to taste and working potency) – katu (pungent), tikta (bitter) and katu (pungent), Kashaya (astringent)
- Ayurvedic scholars accept 6 rasa (madhur, amla, lavan, katu, tikta and Kashaya); 2 veerya (ushna and sheeta) and 3 vipaka (Madhur, amla and katu). The concept of rasa, veerya and vipak is based upon the ratio of panchamahabhuta in the dravya.

The action of a drug is dependent upon the dominance of the mahabhuta . Mixing of some of them behaves like poison and can lead to disease.

10. The substances that are having extreme character are advised to avoid always like atishnigdha (excessive oily), atiruksha(excessive dry), atiushna(excessive hot), atishita (excessive cold), etc.[31]

Excess is always harmful. Any quality which is of extreme character, after coming to the contact suddenly causes extreme change in the physiology which may cause disease.

11. The person who consumes the biruddha ahara becomes susceptible to different types of diseases (vyadhi), weakness of the organs (indriyadaurbalya) and even death (marana)[32]

12. When any non homologous food enters into the body it causes accumulation and aggravation of dosha (doshotklesha) leading to manifestation of disease and hence in such cases expulsion of such element is the only way of treatment [33]

13. **Principles of Treatment of Such Diseases-** In the diseases due to biruddhashana (non homologous /incompatible food) samshodhana (purification therapy) like birechana (induced purgation) and vamaana (induced vomiting)followed by shamanachikitsa (palliative therapy) should be applied [34]

14. Factors That Reduces The Effect of Harmful Food (Biruddha Ahara)[35] :

- **Satmyatah:** If the individual becomes accustomed with the harmful substances due to long term use. When one gets exposure to even a harmful substance regularly then there is development of tolerance to that specific substance, hence they remains not affected with the harmful effects.
- **Alpatah Bhojana:** If the harmful substance used is of small quantity. For each and every harmful substance there is need of an optimum dose to manifest signs and symptoms. A dose lower than the needed one cannot cause harm. Hence a single exposure to a small dose of an harmful substance does not cause harm. But long and repeated exposure even in small dosage can be proved to be harmful.
- **Deeptagni Purusha:** If the digestive capacity of the exposed individual is strong enough . Digestive capacity is of prime importance for destruction of the harmful substances entered into the body. An individual with strong digestive capacity can assimilate even the harmful ingredients entered into the body which reduces the chance of harm .
- **Taruna Purusha:** If the exposed individual is of young age. Young age is considered to be the age of full fledged resistance and strength. At this age one can work hard and can resist the external stress. There is comparatively less chance of affect of the diseases in comparison to the persons of early and old age.

- **Snigdhasvi:** If the person developed strong immunity by habituating oily substances regularly . Ayurveda says that, sneha (oily substances, specially ghee) is immune buster, good for strength, longevity and vigour .
- **Vyayamabali:** If the person developed strong immunity by doing regular exercise. Vyayama specially means and indicates physical activities performed under prescribed protocol . Regular physical exercise conducted under prescribed rules and regulations is also considered as immune buster and beneficial for all round health.

It is unanimously accepted that, diet provides nutrition which governs the physical integrity, strength, longevity, memory, judgement capacity etc. Hence selection of good quality food in appropriate quantity as per need of the time and the user concern is most important. In any situation one should not take harmful, incompatible diet. To make the people to understand the fact all Ayurvedic scholars discuss on “**BIRUDDHA AHARA**” vividly with priority. In each context the scholars give some examples which sometimes seem to be difficult to understand and raise confusion.

A Thorough Study, Discussion and Research on the Concept of Useful and Harmful Foods can be considered the Demand of Time.

Let A Mission Be Started To Explore, Study and Research the Concepts of Food in Relation to Health as Explained by Susruta and Other Ayurvedic Scholars.

REFERENCES

- [1] <https://www.medicalnewstoday.com> accessed on 19th August , 2023 , 9.30 pm
- [2] <https://www.healthline.com>how-----> accessed on 19th August , 2023 , 10pm
- [3] <https://www.niddk.nih.gov>definit----> accessed on 19th August , 2023 , 10.29 pm
- [4] Susruta Samhita , Part -I , Thakral Keval Krishna , Edition -Reprint , 2020, Sutrasthana , Chapter 20 , Sloka 4
- [5] Susruta Samhita , Part -I , Thakral Keval Krishna , Edition -Reprint , 2020, Sutrasthana , Chapter 20 , Sloka 5
- [6] Netmeds , <https://m.netmeds.com>post>red---> accessed on 20th August , 2023 , 9.46pm
- [7] Jagdish Jaba et al ,Sustainable Value of Navara Rice in Medicinal and Aesthetic Aspects , International Symposium , Agricultural Communication and Sustainable Rural Development : From Information to Knowledge to Pantnagar , Uttarakhand , India , 22-24 November , 2012
- [8] <https://www.britannica.com>topic> accessed on 21st August, 2023, 3.18 pm
- [9] <https://www.pashudhanpraharee.com>-----> accessed on 21st August , 2023 at 4.54pm
- [10] <https://pharomeasy.in>blog>ayur-----> accessed on 21st August , 2023 at 4.29pm
- [11] <https://www.timesfoodie.com>cha-----> accessed on 21st August , 2023 at 4.41pm
- [12] <https://www.journalijar.com>article> accessed on 22nd August , 2023 , at 10.40 am
- [13] <https://www.planetayurveda.com>j-----> accessed on 22nd August , 2023 , at 10.53am
- [14] <https://livayur.com>food-benefits> accessed on 22nd August , 2023 at 11.11 am
- [15] <https://www.img.com >ayurveda> accessed on 22nd August , 2023 at 11.27 am
- [16] <https://www.lybrate.com>topic>c-----> accessed on 22nd August , 2023 at 11.37am
- [17] <https://www.healthline.com>sendh-----> accessed on 22nd August , 2023 at 11.48 am
- [18] <https://www.healthline.com>sendh-----> accessed on 22nd August , 2023 at 11.48am
- [19] <https://www.verywellhealth.com>-----> accessed on 22nd August , 2023 at 12.15pm
- [20] Susruta Samhita , Part -I , Thakral Keval Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 6
- [21] <https://en.m.wikipedia.org>wiki> accessed on 22nd August , 2023 at 12.28 pm
- [22] <https://www.goodrx.com>well-being> accessed on 22nd August , 2023 , at 12.51p
- [23] <https://www.sciencealert.com>rese-----> accessed on 22nd August , 2023 at 12.57pm
- [24] <https://www.verywellhealth.com>t-----> accessed on 22nd August, 2023 at 4.08pm
- [25] <https://www.cdc.gov>pa-health> accessed on 22nd August, 2023 at 4.19 pm
- [26] Susruta Samhita , Part -I , Thakral Keval Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 8

- [27] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana , Chapter 20 , Sloka 13
- [28] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana , Chapter 20 , Sloka 14
- [29] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 15
- [30]]Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 16
- [31] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 17
- [32] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 19
- [33] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 20
- [34] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 21
- [35] Susruta Samhita , Part -I , Thakral Kebal Krishna , Edition -Reprint , 2020, Sutrasthana, Chapter 20 , Sloka 22