

Food safety in Ayurveda: A Short Review

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Abstract

Aahar Kalpana (Dietary Guidelines) is a unique concept described in Ayurveda classics. Aahar plays a decisive role in development, sustenance, reproduction and termination of life. In 2015 WHO (World health organisation) highlighted the challenges and opportunities associated with food safety, under the theme “From farm to plate, make food safe”. In this regards there are many guidelines given in Ayurveda texts which has its contemporary relevance. The present paper focuses on the ethics in dietetics (Ayurvedic view), food hygiene, importance of food in life and some concepts in Ayurveda relating to the food which is to be discarded.

Keywords Food, Safety, WHO, Hygiene, Ayurveda



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INTRODUCTION

To achieve total positive health, Ayurveda has provided *Trayopastambh* (three subpillars)¹ – *Aahar* (Food), *Nidra* (Sleep) and *Brahmacharya* (Celibacy). *Aahar* has been enumerated first because of its importance. It is a well known fact that *Ahara* supplies bio-energy to body. This bio-energy is supplied by proper and enough nutrition in the form of its necessary constituent's viz., Protein, Carbohydrates, Fats, Minerals, Vitamins and Water².

The healthy body as well as the disease state are nothing but the outcome of *Ahara*³. Among all the factors for maintenance of positive health, proper food consumption occupies the most important position because *aahar* is the basic medicament other than any substance⁴. In today's fast life, many facts regarding *Ahara* have been compromised which has resulted in the declined status of the health in the society. *Aahar* and its related code of conducts have been long forgotten by human beings; therefore to focus on the concepts of ancient science of dietetics the following study was performed.

Which type of food should not be consumed?

The classical answer of this question is itself given by our great sage Sushrut⁵. The food which is *Achoksha*(Impure), *Dushta*(Contaminated), *Utsrushta*(left over by others), *Pashantrunloshtavat*(containing grass or sand particles), *Dvishta*(Unpleasant), *Vyushit*(Stale), *Aswadu*(Unpalatable), *Puti*(Putrified) should be discarded. Also the food which is *Chirsiddha*(cooked long before), *Sthira*(Hard), *shita*(Cold), *Ushnikrutpunha*(Reheated), *Ashantam*(Incompletely strained), *Upadagdham*(Churned) is not palatable. Hence this type of food should be discarded. The scientific explanation, why Acharya Sushruta had advised to discard or avoid above type of *Aahar*, is as follows-

1. *Achoksha* (Impure)

This kind of impurity is found naturally in some vegetables.

“Some of the plant species often naturally contain chemicals which when consumed for long period may prove toxic”. These toxicants are also called anti-nutritional principles for instance, legumes contains protease inhibitors that avoids digestion of proteins, solanins as in potatoes and such others⁶.

2. *Dushta*(Contaminated)

Natural toxicants entering through contaminants

i) *Plant origin*

Toxin containing seeds such as *Gunja*(Indian liquorice), *Dhatura*(Argemone) may enter grains and oilseeds rendering them hazardous for consumption.

ii) *Microbial origin*

“Foodstuffs containing high moisture are more prone to contamination by bacteria and moulds”. This type of contamination may be due to poor hygiene and sanitation. As food is good fest for microbial proliferation once contaminated the microorganisms may grow and multiply furiously. Some bacteria grow in food and some in intestines. Botulinum is the most dreadful bacterial toxin responsible for food poisoning⁶.

iii) *Biological agents*

Most of the parasites and flukes may infect human through water or flesh foods. Commentator Dalhan stated that *Dushta* means food contaminated by poisonous substances.

3. *Puti*(putrified)

Most of the times food undergoes unpermitted processing's like

artificial ripening with methane, carbide; artificial colourings with non permitted synthetic dyes or artificial sweeteners like saccharine. All these treatments lead to putrifaction of food which may act as carcinogenic and mutagenic compounds.

4. *Utsrushta*(left over by others)

The remnant foodstuffs left by some infected person when consumed may transfer some bacterial toxins in the later consumer.

5. *Pashanrunloshtavat*(containing grass or sand stone particles)

In Ayurveda science *Aahar* having this type of impurity stands as the etiological factor for *Chhidrodara* and *Baddhagudodara*(Types of Ascitis)⁷.

6. *Dvisht*(Dislike food)

The *Dvisht* food, *Ashuchi*(unhygienic) and *puti*(putrified) food are the *Hetus*(Causative factors) of *Chhardi*(Emesis).Also *Dvisharthaj Chhardi* is considered as one of the type of *Chhardi*⁸.

**7. Vyushit(prepared last night),
Shita(cold food)**

The last night's remnant food which is cold and if consumed next morning disturbs *jatharagni* (digestive fire) resulting in *Amadosha* formation. Also by consumption of *Vyushit* food there are chances of food contamination leading to gastro intestinal infections.

8. Sthira(Hard)

The food which we consume should not be of *sthira guna*. According to commentator Hemadri '*yasya dharane shakti sa sthira*'⁹ which means a substance having holding property is called as *Sthira*. But for proper digestion (*sara kitta vibhajan*) food should be of *Chala* property means food should move forward. Also, if the food is having hard property it will create constipation. Hence we should discard *Sthira gunatmaka* (Hard food) food.

9. Chirasiddha (cooked long before)

Never allow cooked food to stand at room temperature for

more than two hours. Because only warm food is palatable and doesn't pacify *jatharagni* (digestive fire). Warm food is easily digested as food has to come to body temperature for proper digestion.

10. Ashantam(Uncooked food)

This type of food consumption may hamper *jatharagni* leading to formation of *Amadosha* (toxic bioproduct) resulting in disease formation like *Ajirna* (indigestion), *Alasaka*, *visuchika*. According to modern aspect also uncooked food may lead to food contamination due to presence of several bacteria in it.

11. Upadagdhm(overcooked food)

Generally, the longer you cook a food, the greater is the nutrient loss. How you make your food will also impact their quality. Some vitamins, such as the B-complex and Vit-C are soluble. If you cook these in water, you will in effect leach the nutrients from the food into the cooking water.

12. Aswadu(Unpalatable)

Basically overcooking will ruin the texture and appearance of

food that might affect their palatability. Food that is overcooked often becomes tasteless and can look disagreeable too, causing you to forgo eating this food and depriving you of nutritional value.

In Ayurveda classics some of the above are found as etiological factors of *Nija shotha*(Inflammation)¹¹.

WHO theme 2015 and Ayurveda.

According to WHO 2015 theme “from farm to plate, make food safe”.

The above mentioned dietary factors regarding discardable food by Acharya Sushruta helps in understanding and prevention of many food borne diseases. Also, WHO in its fact sheet described core message of five keys to safer food, they are Keep clean, separate raw food and cooked, cook thoroughly, keep food at safe temperature, and use safe water and raw materials. Partially these five keys are also described in different Ayurveda classics. Regarding self cleanliness and kitchen hygiene Acharya Charak while explaining *sadvritta*(ideal routines) with respect to *bhojan vidhi* said that one should clean hands, legs, face or should take bath before

having food¹². Regarding kitchen cleanliness Charaka stated that the utensils which are to be used for cooking and serving food should be cleaned before use. The next three keys are discussed above and the last key regarding use of safe water is described by Acharya Sushruta under the title “Remedies to pure dirty water”¹³ are as follows-

- i) *Agnikwathanam*(boiling of water)
- ii) *Suryatapan*(keeping in sunlight)
- iii) *Nirwapan*(heating and quenching iron metal or sand)
- iv) *Prasadan*(different flowers fragrance is used to reduce foul smell of water)

DISCUSSION & CONCLUSION

The above mentioned laws of Ayurveda classics regarding food safety are very much practical and they have correlation with the five keys of core message as described in fact sheet of food safety circulated by WHO’s theme 2015. This shows that these food safety keys have very much contemporary relevance. By applying basic principles of Ayurveda regarding *Tyajya Aahar*(food which is to be discarded) one can practice safety food techniques preventing food and water borne diseases.

From this study it is also cleared that discarded *Aahara* is an important aspect of today's improper dietary habits. This can lead to various hazardous diseases unknowingly to the patients. Hence it is important to highlight the causative discarded dietary factors. The review article also opens a new door in the field of Ayurvedic dietetics to research upon faulty dietary habits to observe the effects.

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