



Review Article

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CONCEPT OF FOOD SANITATION IN AYURVEDA

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ABSTRACT

Food is the vital breath of living beings that's why people rush to the food. Complexion, cheerfulness, good voice, life, imagination, happiness, contentment, corpulence, strength, intellect – all these are dependent on food.

As it is well known that "prevention is better than cure", it's always advisable to have healthy diet in order to prevent the affliction of diseases. Ayurveda also has the same principle which says "Nidana parivarjana meva chikitsam" meaning avoiding the causative factors of the diseases is the first step to treatment. Many common health problems can be prevented through a nutritious diet.

If wholesome and hygienic diet is given in a planned way, then there is no need to administer medicine and if wholesome diet is not being used then too, there is no need to give medicine as this is not going to cure the diseases in the absence of wholesome diet.

Key words: Food, Nutrition, Vital breath, Prevention and Cure, Nidana parivarjana

INTRODUCTION

Food is a substance consumed, other than water and drugs, for maintaining the health, well-being and vitality of the individual. Sometimes foods are eaten raw. But most of the time, they are eaten after some culinary processes such as cooking, boiling, frying, baking etc. After such treatment, the food becomes "diet" (meal).¹

Ayurvedic diet is centered on treating life's experiences as 'food' (for the body and the mind), which is assimilated into the body and contributes to its nourishment. In Ayurveda food is considered as the fuel for the maintenance of the agni. It invigorates the mind. If used in directed manner it promotes the proper distribution of body elements, vitality, complexion and the acuity of the sense organs. The contrary conduct would lead to unwholesome results.²

Nutritional industry has reached a remarkable height in the world business and in the developing countries like India where the majority of the population including women and children are still unable to reach the optimum of nutritional status.

The lack of knowledge about the Food and hygiene apart from attraction towards junk and fast foods due to busy and competitive nature of life are resulting in the further deterioration of the healthy state of the individuals.

Importance of Food Hygiene

Food is one of the physical environments. Adequately hygienic food is necessary for maintaining the health, vitality and well being of an individual. Food also acts as an important vehicle for transmission of the diseases because of its liability for contamination at any point during its journey from the producer to the consumer.

Since ancient times our sages were aware of this fact and hygiene of kitchen, food storage, personal hygiene of the

cook and other workers were stressed upon.³ Hence due precautions must be taken while procuring, storing, processing and cooking of foods.

Milk Hygiene

Milk is more responsible and efficient vehicle for spread of diseases. This is because it is a good medium for the organisms to grow and moreover, it is difficult to keep the milk clean, fresh and in a satisfactory condition and it is most commonly adulterated. Milk is liable for contamination also from animals, human beings and environments such as water, dust, flies, vessels, etc.

Milk that has foul smell, taste, color and in which curdling appears by itself should not be used.⁴

Milk should be boiled before use as raw milk kept for long time gets spoiled and unfit for use.⁵

Milk along with other liquids is advised to be served in utensils made of silver.⁶ Ability of silver particles to kill bacteria is well established in modern era too.

Meat Hygiene

The term meat includes all flesh foods such as mutton, pork, beef, poultry, veal (of calves), goat meat, etc. Meat of animals that died self -death due to age or disease, that is very lean or very fatty, very young or very old, died due to poison, the one that was reared in unfavorable habitat kept on unhealthy diet, meat that is dry, putrefied, foul smelling should not be consumed. This leads to various conditions like nausea and gastric upset.^{7,8}

In Ayurvedic texts meat is advised to be properly processed using oil, ghrith, kanji, buttermilk, spices like pepper.⁹ This not only makes it palatable and easy to digest but also increases its shelf life.

Vegetables and fruits

Vegetables include leafy vegetables, flowers, fruit and other parts like rhizome, bulbs stem etc.

Vegetables that are not fresh, infested by pests, grown on unhealthy land and in different season, that have not properly ripened or are over ripe should not be consumed.¹⁰ Same is true for cereals also.¹¹

Storage of the raw material

After the procurement of raw material due emphasis is given on its proper storage to protect it from contamination. Food grains and other dry substances like spices should be kept in a tight container placed well above the ground to protect it from fire, water, smoke, dust, rodents and other pests. Store should be fumigated regularly with aromatic incense sticks.¹²

Food cooking and serving

Due importance should be given to the place where the food is cooked. Kitchen should be clean and spacious. Obedient workers accompanying the master chef should prepare the food and keep it in clean place.¹³ Freshly prepared; clean and hygienic food is to be served.¹⁴

In ancient time, rules for serving food were also very specific and elaborated. According to the food item vessels were chosen so that to avoid harmful contamination/reactions and also to promote hygiene. (Table 1)

Table 1: Specific Utensils Used According to the Food Items

Food substance	Utensil
Ghrita	Krishna loha vessel
Liquids-milk, meat soups, fruit juices etc	Silver tumblers
Solid foods, fruits etc	Plates of big leaves like Palasha, Kadali etc.
Food items with Curd and buttermilk	Gold vessels
Acidic food items like khada, Yusha	Stone vessels / Vessel of Cats eye stone
Water-boiled and cooled	Copper vessel
Alcohol, syrups, water	Mud/ glass/ Sphatika vessel

Dining area should be situated in corner, beautifully decorated with aromatic flowers, clean and hygienic. Specific decorum is maintained regarding the positioning of food items relative to the consumer. As a rule liquids are kept on the left, solids on the right and food with medium consistencies are kept in the centre¹⁵ (Table 2).

Table 2: Specific decorum of Positioning of food items relative to the consumer

Left	Centre	Right
Liquids	Linctuses	Solid food
Meats soups	Rice	Paapad
Syrups	Chutney	Fruits etc
Milk	Soup etc	
Water etc.		

Food Combinations

During preparing and serving food various combinations should be avoided. This is a unique concept of Ayurveda termed as Viruddha-Ahara (incompatible food). Acharya Sushruta's view is as follows¹⁶ (Table 3).

Table 3: Viruddha Ahara as per Acharya Sushruta

Food substance	Contraindicated with
Newly germinated grains or muscle fat, honey, milk, jaggery, and black gram	Domestic, marshy and aquatic meat etc.
Honey	Hot water
Kakmaci	Pippali and marica
Sauviraka (a sour gruel)	Seasamum-cake
Cane sugar product	Fish
Radish	Honey
All types of fish particularly chilchim	Milk
Lakucha fruit	Milk
Black gram	Before and After intake of milk

FOOD ADDITIVES

These are legally permitted "non-food" substances added to improve the appearance, flavor, texture or storage properties. This also includes those substances that get incorporated into foods in the course of packing, storage, transportation and handling. Thus, there are two categories of food additives-First and second categories.

First category or direct additives are those which are deliberately added and they are safe. Various additives are used in preparation of different food articles which serves different purpose. These include:

- Coloring agents: Saffron, turmeric, *Butea monosperma* flowers.
- Flavoring and aromatic agents: Cloves, ginger, cardamom etc.
- Sweetening agents: Honey, sugar, jaggery, mishri.
- Preservatives: Sugar, salt, oil.
- Palatability agents: Jaggery, sugar, honey, cardamom etc

Second category or Indirect additives are those contaminants which comes in accidentally through packing, processing-steps or while transportation and they are not safe. For example, pesticides, rodenticides, arsenic etc.

Prohibited additives such as lead chromate, metanil yellow, ferric sulphate and copper carbonate may also produce harmful effects.

Very special precautions regarding utensils have been mentioned in Sushrut Samhita. (As mentioned in Table 1: Specific Utensils Used According to the Food Items)

The harmful effects of food additives are allergy, food-poisoning, carcinogenicity, etc. Majority of processed food like bread, biscuits, cake, jam, jellies, soft-drinks, ketch-up etc all contain food additives.¹⁷

DISCUSSION

Food is the basic need for living being. It provides the necessary nutrition and energy to sustain life. But at the same time if not properly processed, may provide some unwanted elements, organisms and cause disease. Modern science has made much advancement in food, nutrition and dietetics. Several measures are adopted to maintain the hygiene regarding the food. But Food sanitation is not a new concept. Detailed descriptions regarding the topic are available in the classical texts of Ayurveda.

Ayurvedic diet is centered on treating life's experiences as 'food' (for the body and the mind), which is assimilated into the body and contributes to its nourishment. It gives

importance to minute details regarding food like how the raw material is obtained? What is the quality of food? How it is processed? Whether the food is prepared, served and consumed in right manner?

Properties of food articles along with various method to procure, store, process and serving it are discussed. Boiling of milk before use, procuring fresh, fully ripened, fruits and vegetables is recommended. Meat of sick, poisoned animal is prohibited. Diet should be eaten freshly prepared. Personal hygiene along with the cleanliness of the kitchen and dining area are dealt in detail.

To prevent the contamination with heavy metals and also to enhance the properties of food, different types of utensils are mentioned. Silver was preferred because of its antibacterial properties. Food substances that may react were served in stone vessels. It is to be noted that stainless steel was not invented during that era.

Table manners are explained and food presentations were done in systematic way. It is very much similar to what is being taught to present day hotel management students.

Food hygiene does not only deal with procuring and preparation of hygienic food free of contamination but it also deals with how the food is used by the consumer. Food prepared with all the cautions may also turn unhealthy and may produce toxins if improper combinations are made. Viruddh ahara concept is very unique concept of Ayurveda.

Thus we must ensure that due importance was given to food hygiene along with its properties. This aspect helps in fulfilling the foremost aim of Ayurveda- swasthasya rakshnam.

CONCLUSION

Hence in view of above facts it can be concluded that concerns about food sanitation is not a new subject. Ancient Ayurvedic texts have mentioned the need and various methods to be followed in order to maintain proper hygienic conditions. Modern concepts of food and nourishment have been developed recently in a scientific manner. Ayurvedic wisdom on the subject can help it grow further and ultimately will benefit the mankind.

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