

FOOD SAFETY

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Food safety is a scientific discipline describing handling, preparation, and storage of food in ways that prevent foodborne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards¹.

Food safety is a concern worldwide as well as in Bangladesh. Consumption of safe food is imperative for growth in childhood, to maintain a normal healthy life as well as to prevent dreadful diseases. It is very unfortunate to see food safety is overlooked in many aspects in our country. Naturally produced crops, vegetables and fruits, even bottled drinking water are adulterated or manipulated in unscrupulous way only for commercial benefits. Consumption of unsafe food may produce a wide spectrum of ailments starting from mild indigestion, food poisoning to fatal malignancy and even death. Previously it was considered as the main culprit for communicable diarrheal diseases but it is now found to be responsible for multiple non-curable dreadful diseases also.

Adulteration of various foods with toxic chemicals is a very common picture of Bangladesh and now has reached an alarming stage and in epidemic form. Carbide in fruits, formalin in fish, toxic colors in sweetmeat and bakery, pesticides in vegetable are added in immoral way for the purpose of high earn profits and thus cheating the consumers as well as poses them to chronic health problems. Though there is no valid data or statistics, yet the surge of malignancy, chronic kidney and liver diseases in Bangladesh are being considered as the outcome of adulterated foods.

Food chemistry analyses the constituents of food during manufacturing and ensure quality control. Correct microbial analysis of food sample plays

important role in food safety. Both food chemistry and microbial analysis help to determine the shelf life of food sample. Every step starting from receiving the raw materials, manufacturing, processing and packaging of products need close monitoring by quality control professionals. Manufacturing of safe, palatable and quality food products should be the final goal of all food processing companies.

The Bangladesh Pure Food Ordinance Act 2005 has prohibited the use of any poisonous or dangerous chemicals or ingredients such as calcium carbide, formalin, pesticides and intoxicating food colour or flavour in any food which may cause injuries to the human body².

The five key principles of food hygiene, according to WHO, are:

1. Prevent contaminating food with pathogens spreading from people, pets, and pests.
2. Separate raw and cooked foods to prevent contaminating the cooked foods.
3. Cook foods for the appropriate length of time and at appropriate temperature to kill pathogens.
4. Store food at the proper temperature.
5. Do use safe water and raw materials.

Hand washing is vital in preventing contamination of food by food handlers. Harmful bacteria such as *E. coli*, Salmonella and Staphylococcus aureus and viruses (e.g. norovirus) present on the hands of food workers are removed by proper hand washing techniques³.

Hazard Analysis Critical Control Point (HACCP) is an internationally recognized food safety system that focuses on identifying and preventing problems from

occurring during food processing⁴. HACCP is a science-based, internationally accepted food safety system focused on the identification and prevention of hazards in the food chain. Originally designed in 1960s to help ensure the microbiological safety of food for the NASA space program, HACCP now also addresses chemical and physical hazards. It is applied to all segments of the food chain, and is recognized worldwide as the leading means of maximizing food safety during processing. Increasingly, clients of food processors are requiring that a Hazard Analysis Critical Control Point system be an essential part of the processing system⁵.

It is the reality that it will take time to get rid of holocaust of adulteration of food in Bangladesh. Effective, energetic initiative and vigilance of Government is the prerequisite but not enough to eliminate this curse. Food growers, whole sellers and retailers should have proper education about the long consequences of this curse and mischievousness they are causing in the society. Exemplary punishment of the persons involved in food adulteration is essential. Awareness of general people may be very much effective indeed if they are motivated not to purchase adulterated food.

References

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