

PERSONAL HYGIENE IN FOOD INDUSTRY

Jashanjot Kaur

Punjab Agricultural University, Ludhiana

Abstract:

When it comes to food, it is very necessary to make sure that the food is safe for human consumption and does not affect the health of human beings adversely. Food borne pathogens or any other contaminants (physical, chemical or microbiological) can enter the food via air, water or by poor handling of the food by the food handler. This is where personal hygiene of the food handler comes into play. From receiving the raw materials till the final product reaches the end consumer, the food business organisation and related parties need to ensure that the food does not get contaminated by the means of touch and any other personal hygiene related issue. Thus, personal hygiene plays a very important role when it comes to ensuring food safety.

Introduction:

Food safety is defined as a scientific discipline describing handling, preparation, and storage of food in ways that prevent food-borne illness. Food borne illnesses are caused by consuming food or beverages contaminated with food borne pathogens. These maybe bacteria like *Campylobacter*, *Salmonella*, *Shigella* etc. or viruses like Norovirus or even parasites like *Toxoplasma*. Food is also contaminated by toxins produced by fungi (known as mycotoxins) such as aflatoxins during the primary production stage. Food can also be contaminated by other physical (glass shards, metal shards, wood chips, hair, plastic etc.) or chemical (cleaning agents, detergents, pesticides, veterinary drugs etc.) contaminants or due to the presence of some allergen like groundnut, soybean which affects the health of only those people who are allergic to them.

To prevent an outbreak of food borne illness, many countries have a food safety management system in place. In developed countries, intricate standards are in place for handling food whereas in underdeveloped countries, these standards are not stringently imposed. In India, the food safety standards are imposed by Food Safety and Standards Authority of India (FSSAI) which was established in 2011 under Food Safety and Standards Act, 2006 by the Ministry of Health and Family Welfare. FSSAI is responsible for

protecting and promoting public health through the regulation and supervision of food safety.

In theory, food borne illnesses are one hundred percent preventable but since food passes through many steps in the supply chain, this is not easily achievable. Also pathogens can be introduced into food by any means like air, water or by the mishandling of food since the environment can never be a hundred percent sterile.

To prevent food contamination and ensure food safety, food hygiene should be maintained. Food Hygiene is the action taken to ensure the safety and suitability of food at all stages of the food chain. Good food hygiene is essential to ensure that the food prepared/sold by businesses is safe. Food safety and hygiene are important both to safeguard consumer health and the reputation of food businesses. Hygiene control in food business organisation/factories is important to prevent direct and indirect contamination of food. Direct contamination of food occurs when food comes into direct contact with a contaminant/contaminated source. But most of the contaminations occur via indirect contact i.e. when something transfers the bacteria. It could be through touch, clothes or any other article of clothing, jewellery etc. Hence to prevent cross-contamination i.e. the transfer of bacteria from contaminated source to clean food, particular measures regarding hygiene are in place in food business organisation. Personal hygiene measures are one such.

Personal Hygiene:

Personal hygiene may be described as the principle of maintaining cleanliness and grooming of the external body. Food borne pathogens, particularly bacteria, live in and on human body and can easily enter into clean food if the personnel working in the factory don't maintain high standards of personal hygiene. It has been shown that face, neck, hands and hair contain comparatively higher amounts of microorganisms (Troller, 1993). There should be a system in place for maintaining and monitoring the personal hygiene of food handlers. They should be supervised and instructed in food hygiene

matters related to the business they are involved in and how personal hygiene influences food safety. Persons who are suspected to be or known to be suffering from any communicable disease which can be transmitted through food must be excluded from the handling areas or where there is direct contact with food.

Any employee handler can be a direct source of contamination through the following: hands, face, head, jewellery, clothing, and practices such as smoking, chewing, and spitting.

HANDS

One of the easiest ways for bacteria to enter the food area and food is through the food handler's hands. Hands come in contact with the food more than any other part of the body since the handlers touch work surfaces and equipment and can thus contaminate them and in turn food by touching it. Therefore, it's very important for the food handler to wash hands thoroughly with soap and running hot water. All the parts of the hands should be cleaned including wrists and under nails since bacteria tend to live under the nails as well. If running water is not available, a bucket and a pitcher could be used instead. If hot water is not available, cold or lukewarm water can be used but it is necessary to use soap no matter what. Even detergent can be used instead of soap. There are steps which are to be followed for a thorough and correct hand washing experience as given by Ayliffe et al. (1978). These are:

Use warm/hot water and soap

Make a lather

Rub the back of hands and fingers

Rub in between fingers, around thumbs and fingertips and also under the nails

Rinse with clean water

Dry hands thoroughly using a clean towel

It is necessary to wash hands before entering the food handling area and after undertaking certain activities like

after eating

after smoking

after cleaning

after handling waste or cleaning

after using the washroom.

after handling raw food like meat and poultry.

after coughing or sneezing or using handkerchief

after touching any surface or equipment before handling food.

It is important to scrub under fingernails as well. Nail polish/acrylic nails should not be

worn as nail polish may flake off and contaminate the food and fake acrylic nails may act as physical contaminant. Nails should be kept short and clean without nail polish. Wear gloves wherever necessary.

FACE AND HEAD

Bacteria live in the nose, mouth, throat and ears of human and as such can be transferred. They also live in hair and scalp. So as a rule, the food handlers should wear hair nets and face masks to prevent contamination.

JEWELLRY

Bacteria and food particles can easily get stuck in the crevices of jewellery like rings and bangles. Gemstones can fall into food so can the tiny jewellery. Also, the skin under the jewellery tends to get warm and thus encourages the growth of bacteria. Same is the case with wrist watches. So as a rule, no jewellery or wrist watches must be worn in and near food handling areas.

WOUNDS AND FIRST AID

All wounds including cuts, grazes, scratches and boils can become infected very quickly. Therefore it is necessary to keep all wounds covered with waterproof band aids. Food business organisations should also ensure that adequate first aid supplies are available.

Some other points that should be kept in mind regarding personal hygiene are:

Protective clothing like aprons, hair nets, face masks, gloves etc. should be worn wherever and whenever necessary.

No smoking or chewing of tobacco in the factory premises.

If the food handler suffers from illnesses such as a stomach disorder, cold, cough, eye or ear discharge, diarrhoea it is important that she/he be not allowed to handle food.

Supervisors should ensure that visitors to the premises adhere to the hygiene rules and do not expose the food to any risk or contaminants. All the rules applied to the food handlers apply to the visitors as well.

Supervisors should ensure that standards are maintained all the time. Clear instructions and training should be provided to the staff regarding the same.

Posters and notices reminding workers about the rules and their personal hygiene responsibilities should be in place.

Hand washing areas and toilets should be regularly cleaned and maintained.

Supervisors must document personal hygiene habits of the workers such as hand washing on

a regular basis at different allotted times.

Thus in conclusion, in the production of safe food, personal hygiene of the food handlers plays a key role. To prevent contamination and provide consumers with safe and healthy food, food business organisations need to make sure that hygienic conditions are maintained throughout the supply chain.

References:

- Ayliffe, G A J, Babb, J R and Quoraishi, A H (1978). A test for hygienic hand disinfection. *Journal of Clinical Pathology*, 31, 23–8.
- Margas, E and Holah, J T (2014). Personal hygiene in the food industry. 10.1533/9780857098634.3.408.
- Troller, J A (1993). *Sanitation in food processing*, 2nd edn. Academic Press, New York.