



### *Short Communication*

# Causes and Prevention of Food Safety Hazards

Mohammed Atta

Department of Microbiology, Fungal Biotechnology Agharkar Research Institute, Maharashtra, India  
mohammedatta09@gmail.com

## HAZARDS OF FOOD

Food hazards are the physical, chemical and biological proxies in the food or the condition of food with the prospect to harm when consumed or to cause an adversative health effect. Food hazards can be categorized as natural menaces such as microbes, chemical hazards such as insecticides, chemical, cleaning agents or allergens and physical hazards are those exposures which are not supposed to, nor likely to be in the food like wood, glass, bones grit or dust.

## CHEMICAL HAZARDS

These hazards are caused by subsequent ways

1. By naturally occurring venomous substances such as by poison plants like rhubarb leaves and mushrooms or poisonous animals like puffer fish, mould toxins or algal blooms, etc.
2. Chemicals which are added in water.
3. Chemicals used in agriculture such as pesticides, antibiotics, dips and heavy metals.
4. Poisonous ailments spread by animals or plants.
5. Chemicals like essences or cleaners which are added during food processing.
6. Some people have allergic reactions from certain foods like milk and its products, peanuts, lobsters or gluten confined mueslis.

These types of hazards can be precise by procuring food stuffs from an approved supplier, protecting the food from contamination, maintain safe cleaning techniques or applying regiment strategies to prevent cross contamination of food.

## BIOCHEMICAL HAZARDS

These hazards are born in the food itself and cause the most food endured illness. They can occur by various sources. These microorganisms are commonly called as germs and are only grasped under a microscope. Mostly not all the microorganisms are harmful but microorganisms like pathogens are harmful in food when they reach to a high level. Some of them are:

1. Viruses like influenza or hepatitis A.
2. Bacteria like salmonella, bacillus cereus, and staphylococcus aureus.
3. Moulds
4. Protozoa like Guardia
5. Yeast

The term food poisoning is caused by these pathogens that are incipient in food results in infection. These microorganisms proliferate to infectious level which have a tendency to make a person hostile when food is retained in saturated or warm conditions. Due to unceasing growth of these microorganisms to dangerous intensities, mostly bacteria, food poisoning tend to arise to avoid this food borne infection; food handlers must know the

situations of food slaughtering microbes and their characteristics.

### **PHYSICAL HAZARDS**

A physical hazard is any foreign object accidentally gets into the food and causes injury or illness to the person eating food. Physical hazards includes foreign objects like bone or bone chips, pieces of product packaging, insects, wood, metal, stones, glass, personal items etc. Toxins from sources comprise raw materials, improper maintenance of equipment and facilities, inadequate production measures and poor employee practices. A physical hazard can enter a food product at any stage of production. It contains sharp and hard objects that can cause a potential threat to a person who is eating. Physical hazard can cause grumble to a person such as

1. It can cuts to the mouth or oesophagus
2. Can damage the intestine
3. Can also damage to the gums and teeth

### **DETECTION AND ELIMINATION OF PHYSICAL HAZARDS**

1. Metal detectors will help to detect any metal content in food product. They should set up in nutrition edifice streak to scrap products in which metal is recognized. Proper conservation should be done to this equipment to ensure they were waged in a precise way.
2. Magnets can be used along with metal detectors on food assembly lines to get rid of metal from products.
3. X-Ray technologies can be used on food to categorize threats such as bones, stones, metals and also hard plastics.
4. Food radar method transmit low-power nukes through food stuffs to recognize outside constituents, for example, metals, plastics, bones, bits and regular materials in food on processing line.