



Terms and Definitions

Acid Foods: Foods that have a pH between 3.7 and 4.6.

High-Acid Foods: Foods that have a pH less than 3.7.

Low-Acid Foods: Foods that have a pH higher than 4.6

Aflatoxins: Toxins produced by the mold genus *Aspergillus*.

Bound Water: Water that is held by chemical bonds to other molecules, thus it is not available for microbial use.

Free Water: Water that is not bound to other molecules, thus it is available for microbial use.

Botulism: Disease caused by ingestion of toxin produced by the bacterium *Clostridium botulinum*, often resulting in death by paralysis of involuntary muscles.

Blanching: Processing treatment designed to heat foods at temperatures near boiling for a few seconds. It is considered a mild treatment yet it can serve to partially decontaminate the surface of some products, as well as inactivate product enzymes. (OR) Process by which foods are exposed briefly to either boiling water or steam for the purpose of inactivating enzymes, among other reasons.

Cold Sterilization: Processing treatment that causes no noticeable increase in temperature of the product. Term is often used to refer to ionizing radiation.

Commercial Sterilization: Process by which foods are exposed to levels of heat that are high enough to destroy all vegetative cells, as well as spores of *Clostridium botulinum*, such that no microbial growth is observed during room-temperature storage.

Sterilization: Process by which foods are exposed to levels of heat that are high enough to destroy all viable microbial cells.

Pasteurization: Process by which foods are exposed to levels of heat that are high enough to destroy all disease-producing vegetative cells, or to reduce the number of spoilage organisms.

LTLT: Low-temperature, long-time pasteurization, also known as vat-pasteurization, it is typically carried out at 62.8°C for 30 minutes.

HTST: High-temperature, short-time pasteurization, typically carried out in milk at 71.7°C for 15 seconds.

UHT: Ultra-high temperature pasteurization, refers to a process whereby milk and milk products are exposed to very high temperatures (140 to 150°C) for a few seconds, rendering them commercially sterile.

Irradiation: Processing treatment based on exposure of foods to ionizing sources of radiation, such as gamma rays, accelerated electrons, or x-rays, for the purpose of reducing or eliminating microbial, parasitic, and insect contaminants .

Intermediate-Moisture Foods: Also known as IMF, refers to foods that have a moisture content between 15 and 50% and a water activity between 0.60 and 0.85. Examples are cakes, jams, fruit juice concentrates, and sweetened condensed milk.

Low-Moisture Foods: Also known as LM, refers to foods that have a moisture content of less than 25% and a water activity between 0 and 0.60. Examples are freeze dried coffee and crackers.

Smoking(e.g. meats): A processing treatment whereby foods are exposed to smoke produced by burning of wood or other fuels, or by addition of extracted smoke products, for the purpose of. changing the flavor and extending the shelf-life of the products.

Nitrite: Curing agent used in processing some meat products, of fixing tissue pigment, retain moisture, and prevent germi-nation of *Clostridium botulinum* a) nitritespores.

Souring: Condition of spoiled cured meat, caused by production of organicacids through the fermentation of lactose by some bacteria, such as lactobacilli and enterococci.

Sours: Condition of spoiled cured hams, caused by microbial fermentation of sugars pumped into the product.

Clean:

Free from litter or clutter, loose dirt, or food particles.

Food Contact Surfaces:

Surfaces of equipment and utensils that raw or cooked food come in contact with during preparation.

Hazard Analysis and Critical Control Points:

HACCP: Hazard analysis critical control point, refers to a management system that seeks to control foodborne hazards through prevention. It can be applied during production, processing, distribution, and preparation of food, with the goal of minimizing or eliminating health hazards to the consumer.

Critical Control Point: CC p, refers to any point or procedure in a food system where control can be exercised and a hazard can be minimized or prevented.

HACCP reduces the chances of foodborne illness by eliminating errors in food handling procedures. The result is growth reduction of bacteria.

HACCP is a method of determining both the cause of errors and how to avoid them. It includes knowing the following:

- growth conditions of hazardous micro-organisms and the application of safe food production
- facility and equipment design required for safe food operations
- kitchen processing procedures and the specification of controlled operating procedures necessary for safe and quality food handling

Standard: Part of a law or regulation that is enforceable by a particular regulatory agency. In the case of microbial standards, it is the limit of the number of organisms, or of positive samples, allowable by that agency.

Non-Food Contact Surface:

All exposed surfaces other than food contact and food splash surfaces.

Refrigerator:

A cold storage unit which maintains hazardous food at 4°C (40°F) or less.

Sanitize:

Reducing to a safe level the number of micro-organism on a surface.

Temperature:

Critical temperatures are >60°C (140°F) or <4°C (40°F) to inactivate or reduce bacterial growth.

Food:

Food or drink fit for human consumption.

Potable Water:

Water that is microbiologically & chemically safe for human consumption.

Approved Source:

A source from which food is obtained that meets with the approval of Health Authorities.

Ingredient Control:

Control measures that are in place to stop foreign objects or contaminants from getting into foods.

What is Foodborne Illness?

Foodborne illness often presents itself as flu-like symptoms such as nausea, vomiting, diarrhea, or fever - many people may not recognize the illness is caused by bacteria or other pathogens in food.

Foodborne illness happens when a person becomes ill from eating food that contains a biological, chemical, or physical hazard. A food borne outbreak occurs when two or more people experience the same illness after eating the same food.

Many of us don't think about food safety until a food-related illness affects them or a family member. We often think that we have a "tummy bug" or the flu, when in fact it is the food we have eaten that has made us sick.

What Causes Foodborne Illness ?

There are three types of risk : biological, chemical and physical (natural)

The Causes of Foodborne Illness or Food Poisoning

Hazards are harmful substances that when found in food can cause foodborne illness. Any biological, chemical, or physical property of a food that may cause an unacceptable risk to the health of the consumer.

Examples are: bacteria (biological), pesticides (chemical), glass (physical).

Hazards can be:

- Chemical
- Physical
- Microbiological