



# ***Food Safety Is Top Priority***

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# Food Safety Is Top Priority

## Why is food safety a top priority?

Food safety is the responsibility of every person who is involved in foodservice. Serving safe food to children and adults who participate in Child Nutrition Programs is a top priority for every foodservice employee regardless of the job assignment. Every action in foodservice has the potential to impact the safety of the food, either during purchasing, storage, preparation, holding, service, or cleanup.

In 2001, the Centers for Disease Control and Prevention (CDC) estimated that 76 million cases of foodborne illness occurred each year in the United States. Foodborne illness is considered a major public health problem. For certain highly susceptible groups, such as seniors, young children, pregnant women, and the immune-compromised, foodborne illnesses can be fatal. In fact, the CDC estimates that there are 325,000 hospitalizations and 5,000 deaths related to foodborne illnesses each year. However, for most people, a foodborne illness results in discomfort lasting several days or longer.

Foodservice employees should know that a foodborne illness could occur in any operation. Just because a foodborne illness has not occurred in a foodservice operation does not mean it will never occur. To prevent a foodborne illness, all employees must practice good food safety habits on a routine basis. In addition to human suffering, an outbreak of foodborne illness can result in a damaged reputation and financial loss.

Foodservice employees have many opportunities throughout the day to ensure that the food served is safe to eat. In order to serve safe food, every foodservice employee must follow guidelines to maintain a safe foodservice environment.

## What is a foodborne illness and foodborne outbreak?

### Foodborne Illness

A foodborne illness, commonly referred to as food “poisoning,” is a disease carried to people by food or water. Although a person may become ill and show symptoms that go with a specific kind of foodborne illness, a foodborne illness can only be confirmed with a laboratory analysis that identifies the source of the illness.

### Foodborne Outbreak

A foodborne outbreak is an incident in which two or more people experience the same illness symptoms after eating a common food. A foodborne illness is confirmed when a laboratory analysis shows the source of illness to be a specific food. For example, it would be a foodborne outbreak if two or more students who ate undercooked hamburger patties in the school cafeteria became sick and their symptoms were confirmed by the State public health department to be caused by *E. coli* 0157:H7.

## What must be done to keep food safe?

Americans have a safe food supply. However, food can become contaminated at any stage in the foodservice process, from field or pasture to the customer's plate.

Foodborne illnesses are caused by eating a contaminated food or drinking a contaminated beverage. The first step in preventing a foodborne illness is to prevent the food or beverage from becoming contaminated and thus unsafe. Any food or beverage can be contaminated (made unsafe). There are three types of hazards (or contaminants) that can cause a food to be unsafe.

- Biological (microorganisms)
- Chemical
- Physical

### Know about Biological Hazards

#### *Understand What Causes Biological Contamination*

Bacteria or other microorganisms that have contaminated food cause most foodborne illnesses. These microorganisms are more likely to grow in the temperature danger zone. The temperature danger zone is between 41 °F to 135 °F and refers to the internal temperature of food. The harmful microorganisms, called **pathogens**, can come from a variety of sources.

- **People** spread organisms from their bodies to food by unclean hands, coughing, or sneezing. Food can be contaminated before or during processing, in the kitchen during preparation, or during service. In fact, most foodborne illnesses are caused by bacteria or other microorganisms spread by people who handle food.
- **Unsanitary facilities and equipment** may spread harmful organisms to people or food.
- **Disease-spreading pests**, such as cockroaches, flies, or mice, which are attracted to food preparation areas, may contaminate food, equipment, or service areas.

#### *Prevent Contamination from Microorganisms*

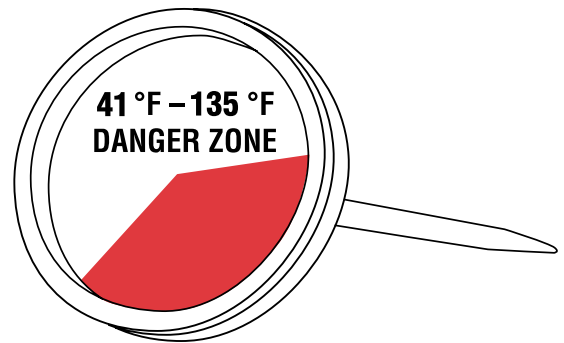
More information about the causes and prevention of foodborne illnesses from microorganisms is provided in Chapter 3: Basic Facts about Microorganisms.

### Know about Chemical Hazards

#### *Understand What Causes Chemical Contamination*

A foodborne illness can result from a harmful chemical getting into a food that is then eaten by a person. Foodservice establishments use a variety of chemicals to clean and sanitize and for pest control.

If handled inappropriately, the chemicals necessary to maintain a sanitary facility can contaminate food and make people sick. Employees who handle hazardous chemicals incorrectly also risk injury due to exposure.



Hazardous chemicals include

- sanitizers,
- pesticides,
- whitening agents,
- detergents,
- polishes,
- glass cleaners,
- caustics, and
- cleaning and drying agents.

***Prevent Chemical Contamination***

Chemical contamination of food and personal injury can be prevented if chemicals are handled and stored properly. Use the guidelines below to help prevent chemical contamination.

- Teach employees how to use chemicals.
- Store chemicals in original containers away from food to prevent accidental misuse as well as leakage into food.
- Make sure labels clearly identify chemical contents of containers.
- Use Materials Safety Data Sheets (MSDS) to ensure that all chemicals are stored and used correctly. MSDS should be readily accessible to all employees.
- Always measure chemicals in accordance with manufacturer’s recommendations.
- Allow only authorized personnel to have access to cleaning chemicals.
- Always test sanitizing solutions.
- Wash hands thoroughly after working with chemicals.
- Wash fresh produce that will be served whole, peeled, or cooked in cold, running water. Scrub thick-skinned produce with a brush designed for food preparation.
- Monitor procedures used by pest control operators to be sure pesticides do not contaminate food. Only professional operators should apply pesticides.

***Metals are another potential source of contamination. Highly acidic foods, such as tomatoes or lemons, can react with metals during cooking or storage, causing the metal to leach out into the food. To prevent this problem:***

- Use metal containers and metallic items only for their intended uses.
- Do not use galvanized containers to prepare or cook acidic foods like lemonade, tomato products, and salad dressing.
- Avoid enamelware, which can chip and expose underlying metal.
- Do not use metal mixing bowls for holding hot foods.
- Never store food in an open can; transfer to an appropriate, covered storage container and label.
- Use only commercial foodservice equipment. Look for the National Sanitation Foundation (NSF) International mark or the Underwriters Laboratories’ (UL) sanitation classification listings of commercial foodservice equipment that comply with those of NSF International.



## Know about Physical Hazards

### *Understand What Causes Physical Contamination*

A food can be contaminated by a foreign object getting into the food accidentally. Physical contaminants include dirt, hair, nail polish flakes, insects, broken glass and crockery, nails, staples, metal or plastic fragments, and bits of packaging materials. Bits of bone in ground beef would be considered a physical contaminant because it is a foreign object that should not be in the food. Some physical contaminants may get into the food during processing and some may accidentally get into the food during final preparation. Either way, physical contaminants can be harmful to the customer, and every effort should be made to avoid any foreign object in the food.

Because physical hazards are easily seen, customers commonly report them. Most physical food contamination can be prevented when foodservice personnel wear proper clothes and shoes, use hair restraints, avoid wearing nail polish and artificial nails, and use other commonsense precautions. Teach employees to be aware of potential physical contaminants.

### *Prevent Physical Contamination*

Use the guidelines below to help prevent physical contamination.

- Use a commercial scoop rather than a glass for portioning ice.
- Designate a source of ice for use in beverages and foods. Do not chill food items in the same ice that will be consumed.
- In a preparation area, store toothpicks and non-edible garnishes on lower shelves so they cannot fall into food.
- Place shields on lights.
- Clean can openers regularly and keep the blades sharp and in good repair.
- Remove staples, nails, etc. from boxes in the receiving area when food is received.
- Avoid repairing equipment temporarily with items that could potentially fall into food.
- Clean and sanitize equipment on a regular basis.
- For best practice, do not wear nail polish or artificial nails when working with food.
- Wear a hair restraint when working with food.
- Do not wear jewelry or medical information jewelry other than a plain ring, such as a wedding band, when preparing or serving food.
- Do not carry a pencil or pen behind the ear since it could fall into food.
- For best practice, avoid wearing earrings that could fall into food.
- Use only food containers or bags that are approved for food storage.
- Never reuse a single-use container.
- Have routine pest control maintenance administered by licensed personnel.

## Summary

CHAPTER 1: **"Food Safety is Top Priority,"** provides an explanation of three types of hazards that can contaminate food: biological (microorganisms), chemicals, and physical. The first line of defense against a foodborne illness is to prevent contamination of food. Bacteria or other microorganisms that have contaminated food cause most foodborne illnesses. These microorganisms are more likely to grow in the temperature danger zone. The temperature danger zone is between 41 °F to 135 °F and refers to the internal temperature of food. The harmful microorganisms, called **pathogens**, can come from a variety of sources. A foodborne illness can result from a harmful chemical getting into a food that is then eaten by a person. Foodservice establishments use a variety of chemicals to clean and sanitize and for pest control. Because physical hazards are easily seen, customers commonly report them. Most physical food contamination can be prevented when foodservice personnel wear proper clothes and shoes, use hair restraints, avoid wearing nail polish and artificial nails, and use other commonsense precautions. Teach employees to be aware of potential physical contaminants. Every foodservice employee is responsible for following all sanitation guidelines to prevent a foodborne illness.