

# Food Safety and Sanitation

## Identifying Hazards

Food becomes unsafe accidentally when harmful things like micro-organisms and chemicals get into foods.

The three most common types of hazards are:

- Biological hazards - include bacteria, viruses and parasites.
- Chemical hazards - include pesticides, food additives and preservatives, cleaning supplies and toxic metals that leech through worn cookware and equipment.
- Physical hazards – include dirt, broken glass and crockery, food packaging, hair and other objects that could accidentally get into food.

1- Biological hazards include disease-causing micro-organisms, certain plants and fish that carry toxins (poisonous). Once a biological hazard is in the food, it may be very hard to kill or control. Some micro-organisms can survive freezing temperatures. Bacteria and the toxins they produce do not have an odor or taste to help you detect them. Bacteria can be a silent killer in foods. Some bacteria produce spores. Spores are thick-walled, protective structures that allow bacteria to survive cooking, freezing temperatures, and some sanitizing mixtures.

Bacteria need these conditions to grow:

Food: high protein foods are often contaminated at the time of purchase. Using safe food practices destroys the bacteria.

Acidity: bacteria prefer low-acid environments. Some bacteria do survive an acidic environment.

Time: potentially hazardous foods should not remain in the danger zone for more than four hours during the entire food handling process.

Temperature: the temperature danger zone is 40 degrees F to 140 degrees F.

Oxygen: some bacteria require oxygen to grow. Other bacteria grow without oxygen. However, both types of bacteria cause foodborne illness.

Moisture: bacteria grow best in a moist environment. Remove water from foods by freezing, adding sugar or salt, or cooking.

2- Chemical hazards include:

- pesticides
- food additives and preservatives
- cleaning and sanitizing supplies
- toxic metals that leech through worn cookware and equipment
- lubricants used on equipment

3- Physical hazards include:

- dirt
- hair
- broken glass and crockery
- nails
- staples
- metal fragments and other objects that accidentally enter foods

Strategies to Keep Food Safe

Reducing the risk of bacterial hazards:

- Wash hands before and after touching raw food.
- Clean and sanitize all food contact surfaces that touch raw food.
- Clean and sanitize all cleaning cloths, sponges, equipment and utensils that touch raw food.
- Store raw foods on shelves below ready-to-eat foods to prevent cross-contamination.
- Remember, raw meats dripping on ready-to-eat foods will contaminate the ready-to-eat foods.

Reduce the risk of chemical hazards:

- Store cleaning chemicals in a separate room from food. Do not leave cleaning chemicals near food preparation areas.
- Store chemicals in their original containers. Do not store chemicals in food containers.
- Use only food-grade, commercial foodservice containers.
- Change gloves and wash hands after cleaning and sanitizing work areas before returning to food preparation duties.

Reducing the risk of physical hazards:

- Use a commercial, food-grade plastic or metal scoop with handles to scoop ice. Do not use glasses to scoop ice.
- Store toothpicks and other non-edible garnishes in separate areas from food storage and food preparation areas.
- Remove staples, nails and similar objects from boxes and crates when food is received.
- Wear hair restraints. Follow unit policies and procedures for wearing jewelry and nail polish.

Make it a general practice to walk through the kitchen, storage areas, refrigeration units, etc. and identify potential hazards. Review your menu to determine where potential hazards may occur.

### About the Author

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