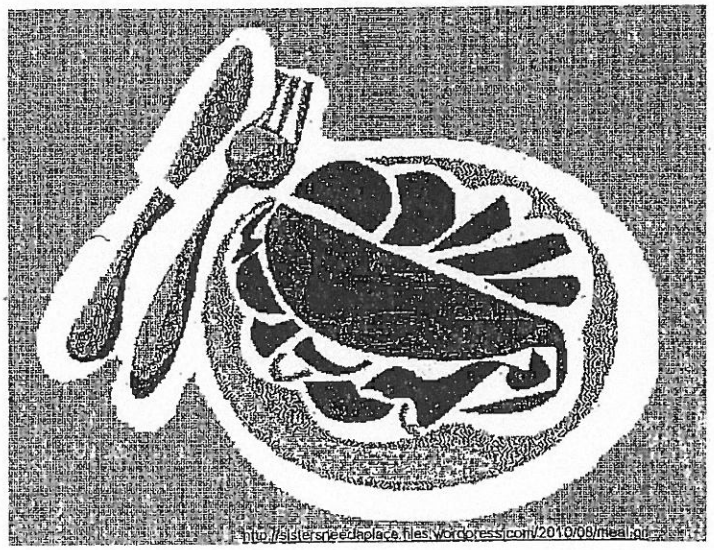
Food Service Manager
Level 2 Training



A Certification Coursebook

Baltimore County Department of Health
Environmental Health Services

Compiled and Edited by
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Section 1

Providing Safe Food: We Can Make a Difference

(Q) What is foodborne illness?

(A) A foodborne illness is a disease carried or transmitted to people by food.

All foodservice operations have the potential to cause foodborne illness through errors in purchasing, receiving, storing, preparing, and serving food.
Consider the following:

- The South Carolina Department of Health and Environmental Control (DHEC) traced a foodborne illness outbreak to a church fundraiser. "The meals were prepared at a local hunting club and sold to raise money to benefit the family of an ill child," said Covia L. Stanley, M.D., director of DHEC's Region 6 public health office. Barbeque pork, baked sweet potatoes, coleslaw, and rolls were all served at the fundraiser. Samples of the leftover food were sent for analysis. DHEC officials reported that at least 125 people have sought medical attention since eating food provided at the fundraiser and eleven people have been hospitalized with symptoms consistent with Salmonella infection.

- The Montana man died of listeria from cantaloupes linked to a nationwide outbreak of the deadly bacteria. The gentleman ate cantaloupe on several occasions during the weeks before his death. However, no melons had been purchased from a store that received fruit from the southeastern Colorado cantaloupe growers who were the source of a deadly listeria outbreak. Later it was discovered that he ate foods at two church socials, and cantaloupes were provided by another member of the congregation.

(Q) What are the symptoms of a foodborne illness?

(A) The symptoms of a foodborne illness vary, but most share common symptoms:

- Fever
- Diarrhea
- Vomiting
- Nausea
- Abdominal cramps
- Jaundice (a yellowing of skin and eyes)

Not every person who is sick with a foodborne illness will have all of these symptoms and a person may be exposing others without showing any symptoms. Symptoms of a foodborne illness may not be limited to this list.

Increased numbers of individuals are at high risk for contracting foodborne illness:

- Infants and preschool-age children
- Pregnant women
- Elderly people
- People taking certain medications, such as antibiotics and immuno-suppressants
- People who are ill (those who have recently had major surgery, are organ-transplant recipients, or who have pre-existing or chronic illnesses)

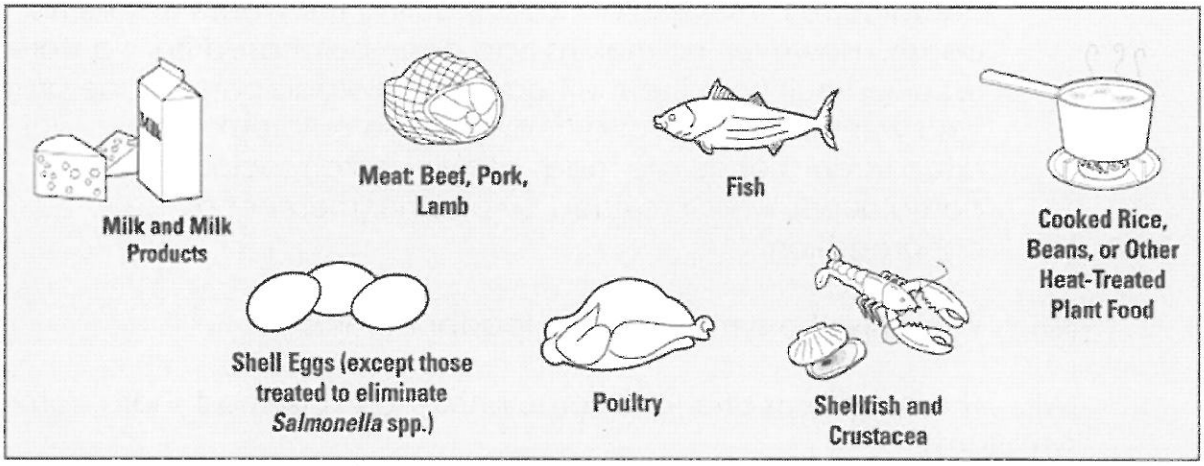
(Q) What are potentially hazardous foods?

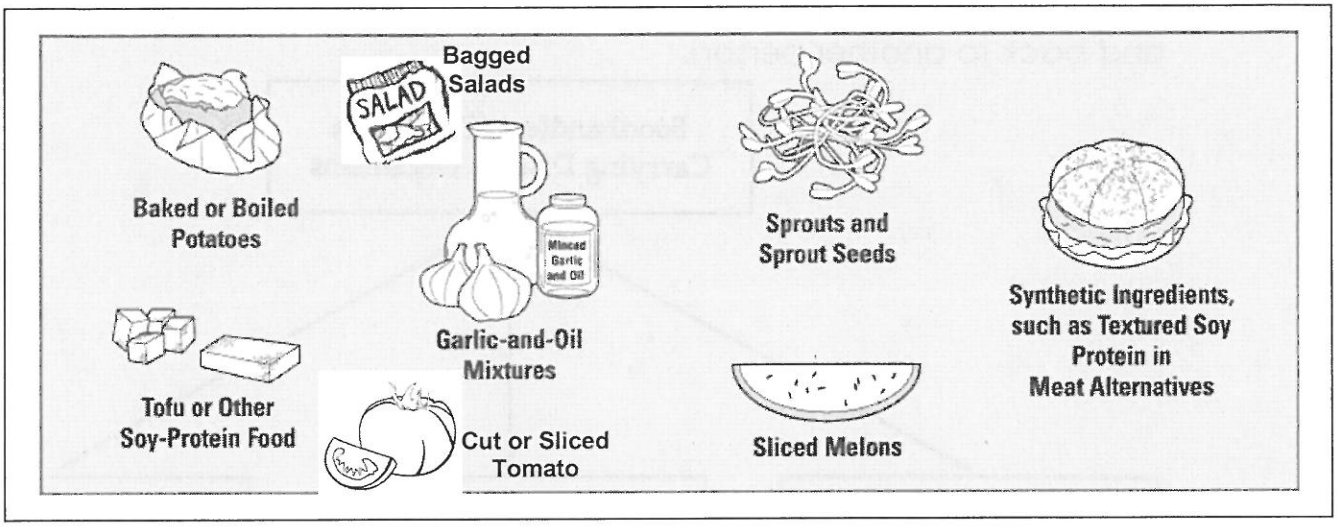
(A) Potentially hazardous foods are:

- Foods that are often moist, contain protein, and have a neutral or slightly acidic pH.
- Foods in which microorganisms can grow rapidly.
- Foods that have a history of being involved in foodborne-illness outbreaks.
- Foods with pH levels above 4.6 when measured at 75°F.
- Foods with water activity (a_w) value greater than 0.85.

Note: Some foods such as mushrooms that cause foodborne illnesses are poisonous by nature

Potentially Hazardous Foods:





(Q) What are Ready-to-Eat Foods?

(A) Ready-to-Eat (RTE) Foods are any foods that are edible without any further washing or cooking. Ready-to-eat foods include:

- Washed, whole or cut fruits
- Vegetables
- Deli meats
- Bakery items
- Spices, sugars, and seasonings
- Properly cooked foods

(Q) How does food become unsafe?

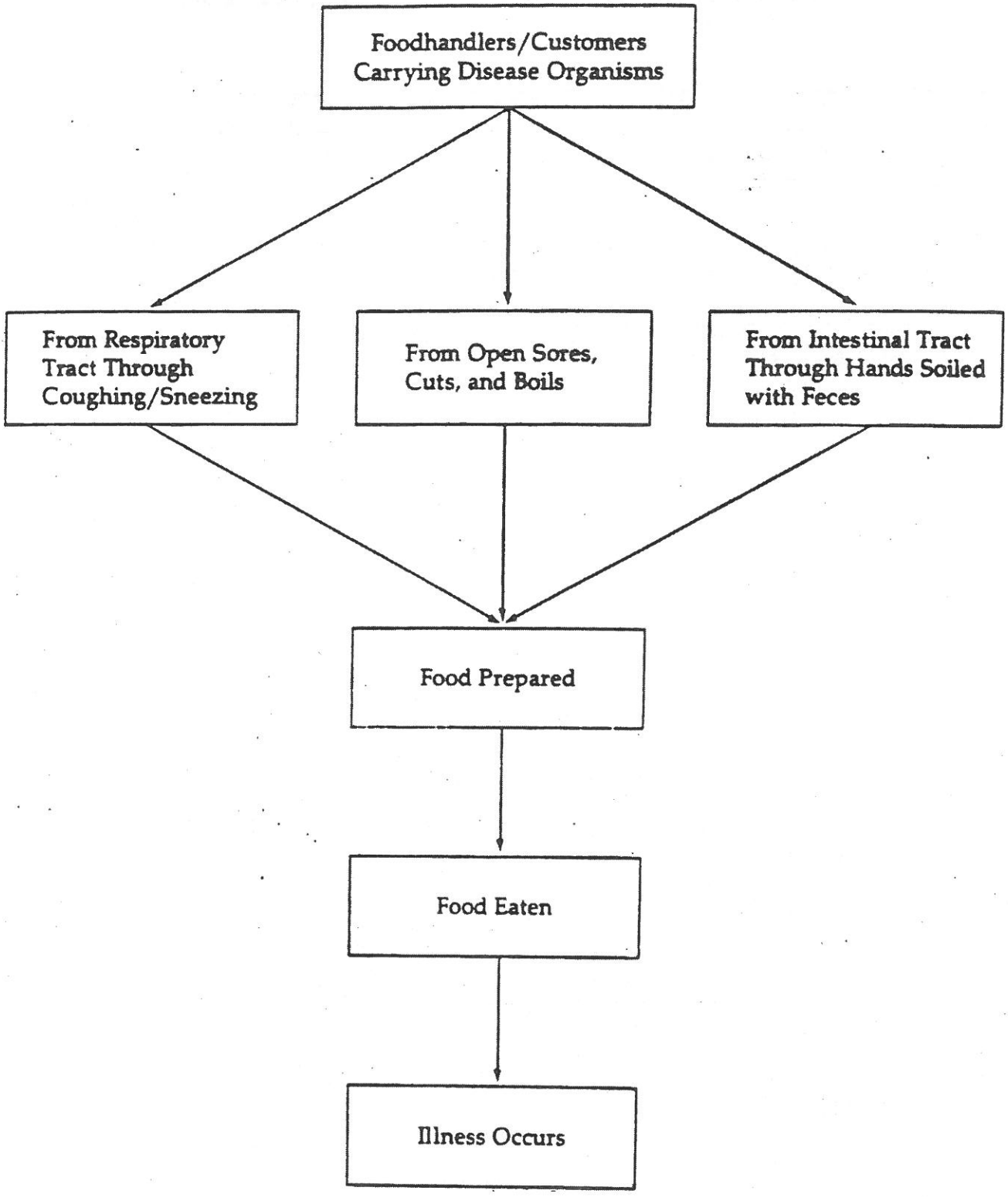
(A) The Centers for Diseases Control (CDC) have identified **five risks factors** that are responsible for foodborne illness:

- **Purchasing food from unsafe sources**
- **Failing to cook food adequately**
- **Holding food at improper temperatures**
- **Using contaminated equipment**
- **Poor personal hygiene**

Having a quality food safety system in place can help to reduce these risks. This food safety system should include proof that your establishment did everything that could be reasonably expected to ensure that the food served was safe:

- Evidence of written standards,
- Training practices,
- Procedures such as a HACCP plan with monitoring documentation
- Positive inspection results are the keys to this defense

Transmission of a foodborne illness from an infected person to food and back to another person:



Section 2
Contamination: What We Can't Always See

(Q) What are the potential hazards to Food Safety?

(A) Unsafe food usually results from contamination, which is the presence of harmful substances in the food. Food safety hazards are divided into three categories:

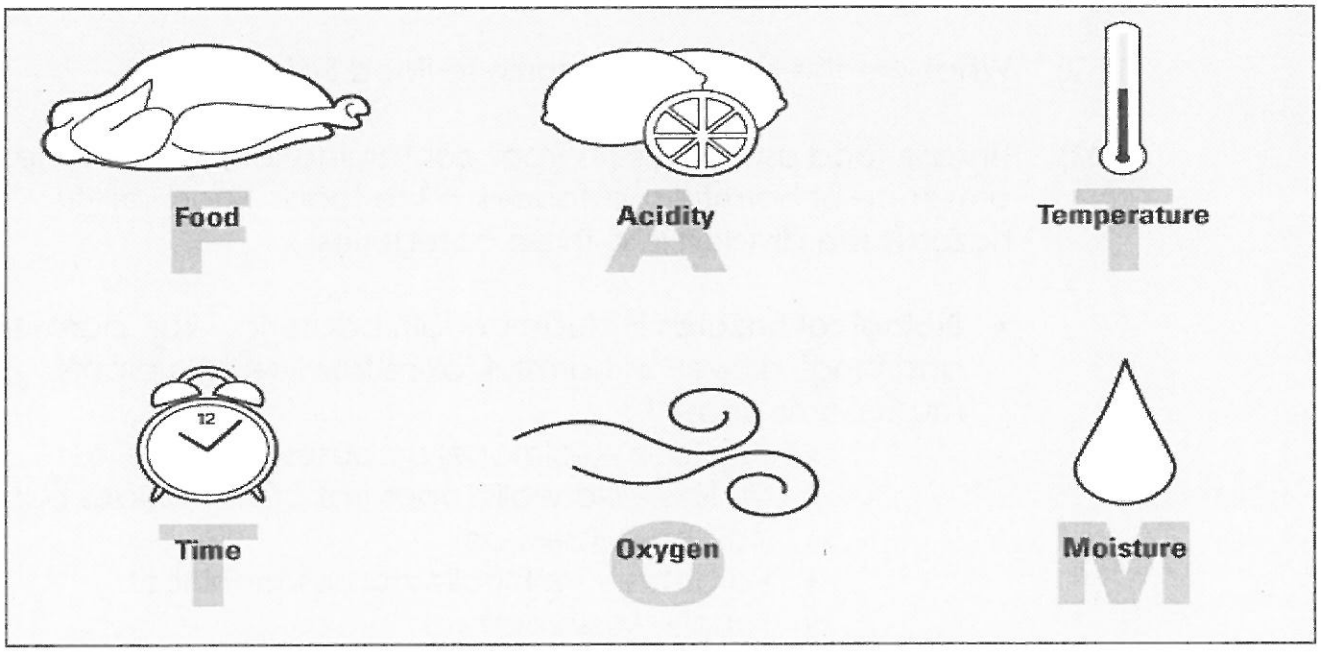
- **Biological hazards** include certain bacteria, virus, parasites, and fungi, as well as harmful toxins from certain plants, mushrooms and fish:
    - Bacteria – Salmonella causes Salmonellosis
    - Viruses – Norwalk (does not grow in foods but can be passed on)
    - Parasites – Trichinella causes Trichinosis
    - Fungi – Mushrooms
    - Molds - Aspergillus
- **Chemical hazards** include pesticides, food additives, preservatives, cleaning supplies, and toxic metals that leach from cookware and equipment:
    - Pesticides
    - Other chemicals (detergents, toxic metals)
- **Physical hazards** consist of foreign objects that accidentally get into the food, such as hair, dirt, metal staples, and broken glass, as well as naturally occurring objects, such as bones:
    - Fragments of glass & metal
    - Band-aids, hair etc.
    - Small pieces of loose hardware

Biological

Basic Characteristics of Bacteria that Cause Foodborne Illness

- Living, single-celled
- Can be carried by food, water, soil, humans, or insects
- Can reproduce rapidly under favorable conditions
- Some survive freezing
- Some form spores
- Some spoil food; others cause illness
- Some produce toxins that cause illness

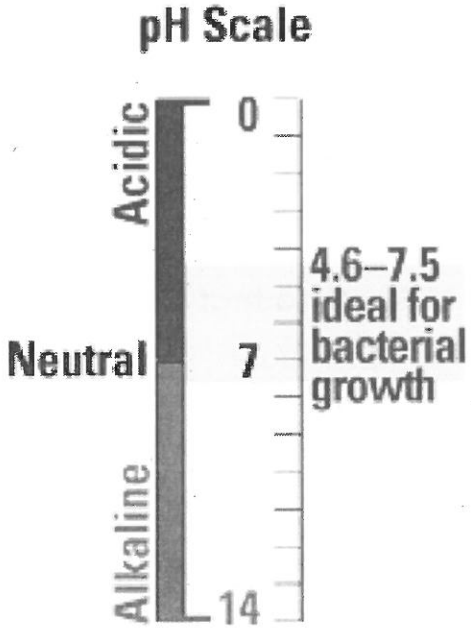
Conditions of Growth- FATTOM:



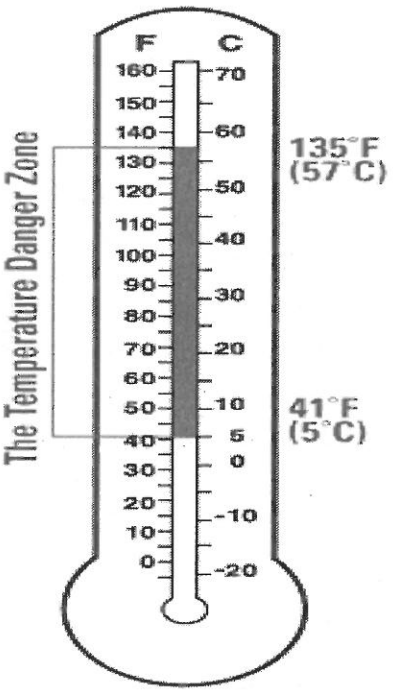
Food: Bacteria require nutrients found in potentially hazardous food to grow:

- Proteins
- Carbohydrates

Acidity: Pathogenic bacteria grow well in food that is slightly acidic or neutral (pH of 4.6 to 7.5)



Temperature: Most bacteria grow well at temperatures between 41°F and 135°F (5°C and 57°C)



Time: Foodborne bacteria need sufficient time to grow, 4 hours or more in TDZ (Temperature danger Zone) = temperature where growth is high enough to cause illness

Oxygen: Some pathogens require oxygen to grow, while others grow when oxygen is absent.

Moisture: Most bacteria grow well in moist food. Moisture is calculated using a measurement called water activity (a_w). Potentially hazardous food typically has an a_w of .85 or higher.

(Q) What is the difference between foodborne infection vs. foodborne intoxication?

(A) -Foodborne infections result when a person eats food-containing pathogens, which then grow in the intestines and cause illness. Typically, symptoms of a foodborne infection do not appear immediately.

-Foodborne intoxication result when a person eats food-containing toxins that cause illness.

-Foodborne Toxico-infections result when a person eats food-containing pathogens, which then produce illness-causing toxins in the intestines.

(Q) What are spore forming bacteria?

(A) Spore forming bacteria exist in two stages:

A vegetative (growing) bacteria is capable of growth and reproduction

- May be killed by high temperature
- Resistant to low temperatures and may survive freezing

A spore is a thick walled formation inside the bacteria that makes the bacteria capable of becoming vegetative bacteria when conditions become favorable.

- Spores allow bacteria to survive hostile environments such as cooking
- Spores do not reproduce
- The thick wall makes it more resistant to heat, cold, and chemicals

Bacteria

Hazard and Classification	**Associated Foods**	**Control Measures**
Bacillus cereus Spore former 2 types: **Emetic** (vomiting) type causes intoxication by heat stable, preformed toxin **Diarrheal** type causes toxico-infection by ingestion of cells which produce toxin in the gut	Meat, poultry, starchy foods (rice, potatoes), puddings, soups, cooked vegetables	Cooling, cold holding, hot holding
Clostridium botulinum Spore former (Intoxication)	Vacuum-packed foods, reduced oxygen packaged foods, under-processed canned foods, garlic-in-oil mixtures, time/ temperature abused baked potatoes/sautéed onions, meats and fish, vegetables esp. those grown close to the ground	Thermal processing (time + pressure), cooling, cold holding, hot holding, acidification and drying, etc.
Clostridium perfringens Spore former (Toxicoinfection)	Cooked meat and poultry, Cooked meat and poultry products including casseroles, gravies	Cooling, cold holding, reheating, hot holding

Hazard and Classification	Associated Foods	Control Measures
E. coli O157:H7 (other shiga toxin-producing E. coli) Non-spore former *(Toxicoinfection)*	Raw or undercooked ground beef, raw seed sprouts, raw milk, unpasteurized juice, foods contaminated by infected food workers via fecal-oral route	Cooking, no bare hand contact with RTE foods, employee health policy, handwashing, prevention of cross-contamination, pasteurization or treatment of juice
Campylobacter jejuni Non-spore former *(Infection)*	Raw or undercooked poultry, raw milk	Cooking, handwashing, prevention of cross-contamination
Listeria monocytogenes Non-spore former *(Infection)*	Raw meat and poultry, fresh soft cheese, paté, smoked seafood, deli meats, deli salads	Cooking, date marking, cold holding, handwashing, prevention of cross-contamination
Salmonella spp. Non-spore former *(Infection)*	Raw or undercooked meat and poultry, seafood, eggs, raw seed sprouts, raw vegetables, raw milk, untreated juice	Cooking, use of pasteurized eggs, employee health policy, no bare hand contact with RTE foods, handwashing, pasteurization or treatment of juice
Shigella spp. Non-spore former *(Infection)*	Raw vegetables and herbs, other foods contaminated by infected workers via fecal-oral route	Cooking, no bare hand contact with RTE foods, employee health policy, handwashing
Staphylococcus aureus Non-spore former *(Intoxication caused by preformed, heat- stable toxin)*	RTE foods touched by bare hands after cooking and further time/temperature abused	Cooling, cold holding, hot holding, no bare hand contact with RTE food, handwashing
Vibrio spp. Non-spore former *(Infection or Toxicoinfection)*	Raw or undercooked seafood, shellfish	Cooking, approved source, prevention of cross-contamination, cold holding
Yersinia entercolitica Non-spore former *(Infection)*	Raw or undercooked meat (esp. pork), oysters, fish, and raw milk	Cooking, pasteurization, prevention of cross-contamination, handwashing

Basic Characteristics of Viruses

- Unlike bacteria, they rely on a living cell to reproduce
- Unlike bacteria, they do not reproduce in food
- Some may survive freezing and cooking
- Can be transmitted from person to person, from people to food, and from people to food-contact surfaces
- Can contaminate both food and water supplies

Viruses

Hazard and Pathogenesis	Associated Foods	Control Measures
Hepatitis A and E (Infection)	Any food contaminated by infected worker via fecal-oral route; raw or undercooked shellfish	No bare hand contact with RTE food, minimizing bare hand contact with foods not RTE, employee health policy, handwashing, approved sources (shellfish)
Noroviruses, Rotaviruses, Astroviruses, Caliciviruses, Enteric Adenoviruses, Parvoviruses (Infection)	Any food contaminated by infected worker via fecal-oral route/ vomitus; raw or undercooked shellfish	No bare hand contact with RTE food, minimizing bare hand contact with foods not RTE, employee health policy, handwashing, approved sources (shellfish)

(Q) Why are viruses so hard to control?

(A) Consider the following:

- Norovirus has been shown to survive heating at 140°F for 30 minutes
- Norovirus has been found on hard surfaces for 12 hours and on fabrics for 12 days after exposure.
- Number of viral particles found in 1 ml of feces = 1,000,000,000,000
- Number of viral particles left after washing your hands = 10,000,000,000
- Number of viral particles transferred from ungloved hand to food = 1,000,000,000
- Number of virus particles to make you sick = 1-10

Basic Characteristics of Parasites

- Living organisms that need a host to survive
- Small, often microscopic
- Grow naturally in many animals and can be transmitted to humans
- Pose a hazard to food and water

Basic Characteristics of Fungi

- Molds grow under almost any conditions, but grow well in acidic foods with low water activity. Found naturally in air, soil, plants, water, and some food.
- Molds, yeasts, and mushrooms are examples of fungi.
- Molds spoil food and sometimes cause illness (with toxins).

Section 3
Toxins & Contamination

Biological Contamination-
Seafood Toxins

Hazard	Associated Foods	Control Measures
Scombrotoxin	Primarily associated with tuna, mahi-mahi, blue fish, anchovies, mackerel; Also found in cheese	Check temperatures at receiving; store at proper cold holding temperatures; buyer specifications: obtain verification from supplier that product has not been temperature abused prior to arrival in facility.
Ciguatoxin	Reef fin fish from extreme SE US, Hawaii, and tropical areas; barracuda, jacks, king mackerel, large groupers, and snappers	Purchase fish from reputable sources to ensure they have not been harvested from an area subject to an adverse advisory.

Plant Toxin

Some plants are:

Naturally toxic

- Rhubarb leaves
- Apricot kernels
- Water hemlock

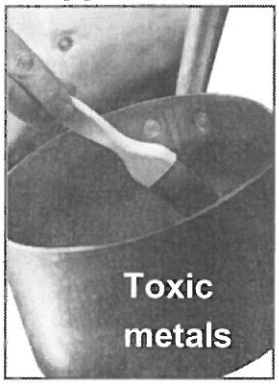
Toxic when raw, but safe when cooked

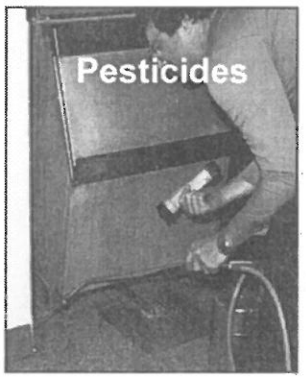
- Red kidney beans
- Fava beans

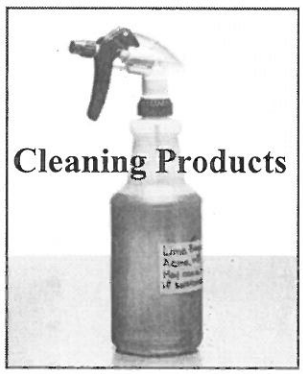
Mushroom Toxins

- Present in certain varieties of wild mushrooms
- Can cause severe illness
- Are not destroyed by cooking or freezing.

Types of Chemical Contaminants







Toxic Metals

- Includes items made of pewter, copper, zinc, and some painted pottery
- Metals may dissolve when exposed to acidic foods such as tomato sauce, lemon juice, or carbonated water

Pesticides

- Should only be applied by a licensed pest control operator (PCO), and
- Wrap and store food prior to application

Cleaning Products

- Store away from food, utensils, and equipment,
- Follow manufacturers' directions for using them, and
- Label them properly if they are transferred to new containers.

Physical Contamination

Accidental Introduction of Foreign Objects

- Metal shavings
- Staples
- Glass
- Fingernails
- Hair
- Bandages

Naturally Occurring Objects That Pose a Hazard

Bones

Food Allergens

Common Food Allergens:

- Milk and dairy products
- Eggs and egg products
- Fish
- Shellfish
- Wheat
- Soy and soy products
- Peanuts
- Tree nuts

Symptoms of an allergic reaction include:

- Itching in and around the mouth, face, or scalp
- Tightening in the throat
- Wheezing or shortness of breath
- Hives
- **Swelling of the face, eyes, hands, or feet**
- Gastrointestinal symptoms
- Loss of consciousness
- Death

To protect guests with food allergies:

- Be able to identify menu items containing potential allergens
- If you are not sure if a guest's selection is allergen-free, urge them to order a different item
- Ensure that tableware and utensils used to prepare the guests' food are allergen free
- Prepare menu items as simply as possible

Section 4:
The Safe Foodhandler

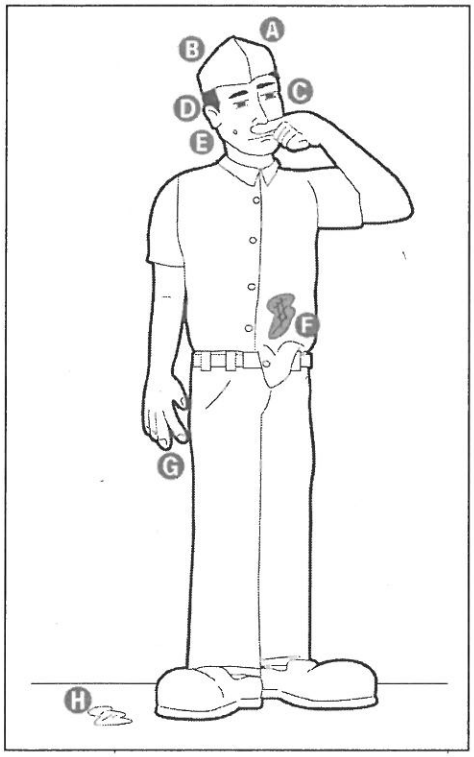
Personal Behaviors That Can Contaminate Food

(A). **Scratching the scalp**

(B). **Running fingers through hair**

(C). **Touching the nose**

(D). **Rubbing an ear**



(E). **Touching a pimple/sore**

(F). **Wearing a dirty uniform**

(G). **Coughing/sneezing into the hand**

(H). **Spitting**

Good personal hygiene includes:

- Maintaining personal cleanliness
- Wearing proper work attire
- Following hygienic hand practices
- Avoiding unsanitary habits and actions
- Maintaining good health
- Reporting illnesses

Food safety begins with each food service employee. A kitchen may be spotless and sanitary, but food poisoning can occur nevertheless. If employees are careless in their personal hygiene, or if they don't wear clean clothes, cover hair, remove their jewelry, or if they handle food when they have open sores or are sick, illness can easily result.

- Clean means free of visible soil
- Sanitary is free of harmful levels of disease-causing microorganisms and other harmful contaminants.

(Q) What is sanitation in a food service operation?

(A) In a food service situation, it means wholesome food, handled and prepared in a way that the food is not contaminated with disease-causing agents.

Handwashing

The most critical aspect of personal cleanliness is frequent and thorough handwashing, because most often it is dirty hands and fingernails that create a hazardous condition by contaminating the food product. Hepatitis A and other pathogenic microorganisms have been proven to infect people via the fecal-oral route with food being vehicle of transmission.

To ensure proper handwashing in your establishment, train your foodhandlers to follow these steps:

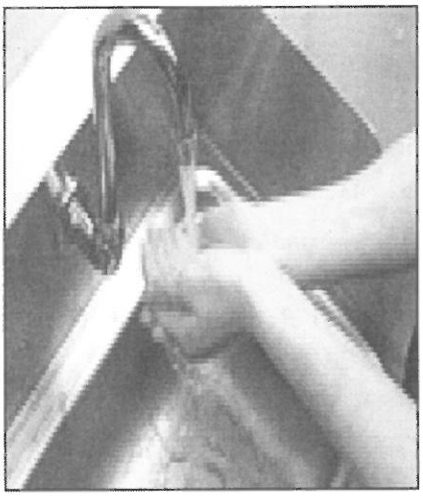
- **Step 1**: Wet your hands with running water as hot as you can comfortably stand (at least 100°F).
- **Step 2**: Apply soap. Apply enough soap to build up a good lather.
- **Step 3**: Vigorously scrub hands and arms for at least twenty seconds. Lather well beyond the wrist, including the exposed portions of the arms.
- **Step 4**: Clean under fingernails and between fingers.
- **Step 5**: Rinse thoroughly under running water. Turn off the faucet using a single-use paper towel if available.
- **Step 6**: Dry hands and arms. Use single-use paper towels or a warm-air hand dryer. Never use aprons or wiping cloths to dry hands after washing.

Hand sanitizer is a liquid used to lower the number of microorganisms on the surface of the skin. **Using hand sanitizers or hand dips after washing is acceptable, but should never be used in place of proper handwashing**. If hand sanitizers are used, foodhandlers should not touch food or food-preparation equipment until the sanitizer has dried. Hand sanitizers that have been approved by the FDA are the only ones that may be used.

Foodhandlers must wash their hands before they start work and after the following activities:

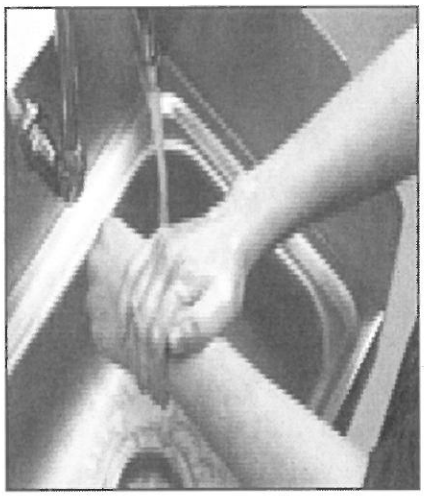
- Using the restroom
- Handling raw food (before and after)
- Touching the hair, face, or body
- Sneezing, coughing, or using a handkerchief or tissue
- Smoking, eating, drinking, or chewing gum or tobacco
- Handling chemicals that might affect the safety of food
- Taking out garbage or trash
- Clearing tables or busing dirty dishes
- Touching clothing or aprons
- Touching anything else that may contaminate hands, such as unsanitized equipment, work surfaces, or washcloths

WASHING HANDS HELPS STOP SICKNESS



1. Wet hands with running water as hot as you can comfortably stand (at least 100°F/38°C).

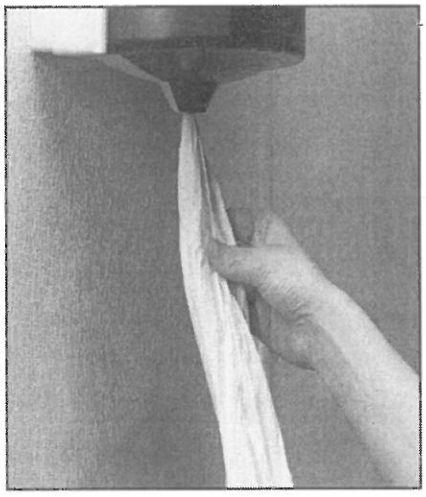
2. Apply soap.



3. Vigorously scrub hands and arms for at least twenty seconds.

4. Clean under fingernails and between fingers.

5. Rinse thoroughly under running water.



6. Dry hands and arms with a single-use paper towel or warm-air hand dryer.

No Bare-Hand Contact with Ready-To-Eat Food

The Regulations of Maryland and Baltimore County governing Food Service Facilities does not allow bare hand contact with ready-to-eat foods. Utensils, deli paper, or gloves may be used.

Hand Maintenance means the other regular care of the hands in addition to proper washing to ensure that they will not transfer microorganisms to food. To keep food safe, make sure foodhandlers follow these guidelines:

- **Keep fingernails short and clean.**
- **Do not wear nail polish.**
- **Cover all hand cuts and sores with clean bandages.** If hands are bandaged, clean gloves and/or finger cots, a protective covering, must be worn at all times to protect the bandage and to prevent it from falling off into the food.

Gloves

Use of gloves:

- Can help keep food safe by creating a barrier between hands and food.
- Must never replace handwashing
- Are for single-use only
- Must be safe, durable, and clean
- Must fit properly
- Must be used properly

Foodhandlers should change their gloves:

- As soon as they become soiled or torn.
- Before beginning a different task.
- At least every two hours during continual use, and more often when necessary.
- After handling raw meat and before handling cooked or ready-to-eat food.

Proper Work Attire:

- Clean work clothes and shoes.
- Hair restraints/beard restraint.
- No jewelry may be worn while on duty.
- Remove aprons when leaving food-preparation

(Q) Should sick or infected foodhandlers be permitted to work?

(A) The decision to exclude ill or infected employees is difficult especially where no sick pay will be provided or limited staff.

If the foodhandler has one of the following symptoms:

- Fever
- Diarrhea
- Vomiting sore throat with fever
- Jaundice

Then:

- Restrict them from working with or around food
- Exclude them from the establishment if you primarily serve a high-risk population.

If the foodhandler has been diagnosed with a foodborne illness,

Then:

- Exclude them from the establishment and notify the local regulatory agency.
- Work with the regulatory agency to determine when they can return.

(Q) What happens with employees that have AIDS? (Acquired Immune Deficiency Syndrome)

(A) Because there has never been a scientifically documented case of AIDS transmission through food, **it is believed that AIDS poses no threat of foodborne illness to the consumer.** AIDS cannot be spread through casual contact to customers or co-workers. Perhaps the only real threat it poses to the food service operator is the fear and misconceptions it can create in the public, both patrons and employees. However, a person with AIDS is more susceptible to acquiring a foodborne illness through food handling.

Section 5
The Flow of Food

Preventing Cross-Contamination

A major hazard to the flow of food in your operation is cross-contamination, which is the transfer of microorganisms from one food or surface to another. Microorganisms move around easily in a kitchen. They can be transferred from food or unwashed hands to prep tables, equipment, utensils, cutting boards, dish towels, sponges, and other food contact items.

Cross-contamination can occur at almost any point in an operation. Once you understand how microorganisms can be transferred, cross-contamination is fairly simple to prevent. Prevention starts with the creation of barriers between food products. These barriers can be physical or procedural.

Physical Barriers for Preventing Cross-Contamination

- Assign specific equipment to each type of food product.
- Clean and sanitize all work surfaces, equipment, and utensils after each use.

Procedural barriers for Preventing Cross-Contamination

- When using the same prep table, prepare raw and ready-to-eat food at different times.
- Purchase ingredients that require minimal preparation.
- **Washing raw poultry, beef, pork, lamb, or veal before cooking it is not recommended. Bacteria in raw meat and poultry juices can be spread to other foods, utensils, and surfaces.**

Time and Temperature Control

One of the biggest factors in foodborne-illness outbreaks is time-temperature abuse. Disease-causing microorganisms grow and multiply at temperatures between 41°F and 135°F (5°C and 57°C)., which is why this range is known as the temperature danger zone. Microorganisms grow much faster in the middle of the zone, at temperatures between 70°F and 125°F (21°C and 52°C).

The longer food stays in the temperature danger zone, the more time microorganisms have to multiply and make food unsafe. To keep food safe throughout the flow of food, you must minimize the amount of time it spends in the temperature danger zone. It is required that food does not remain in the zone for more than four (4) hours.

Common opportunities for time-temperature abuse throughout the flow of food include:

- Not cooking food to its required minimum internal temperature
- Not cooling food properly
- Failing to reheat food for hot holding to 165°F (74°C) for fifteen seconds within two hours
- Failing to hold food at a minimum internal temperature of 135°F or higher or 41°F or lower.

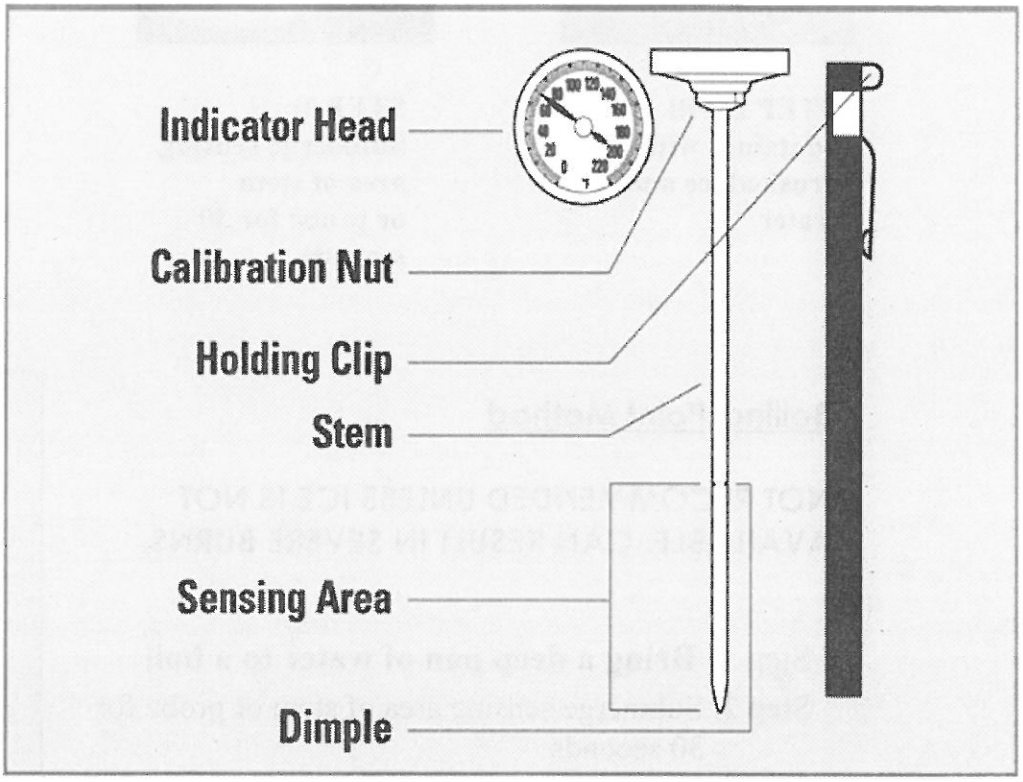
The best way to avoid time-temperature abuse is to establish and monitor procedures that employees must follow when preparing food:

- Determine which foods should be monitored, how often, and who should check them.
- Make sure the establishment has the right kind of thermometers available in the right places. Give employees their own calibrated food thermometers and teach them how to use them.
- Regularly record temperatures and the times they are taken. Print simple forms employees can use to record temperatures and times throughout the shift.
- Incorporate time and temperature controls into standard operating procedures for employees. These might include:
    - Removing from the refrigerator only the amount of food that can be prepared in a short period of time.
    - Refrigerating ingredients and utensils before preparing certain recipes, such as tuna or chicken salad.
    - Cooking potentially hazardous food to required minimum internal temperatures.

- **Develop a set of corrective actions.**
    - Decide what action should be taken if time and temperature standards are not met.

Common Types of Thermometers

Bimetallic Stemmed Thermometer Picture

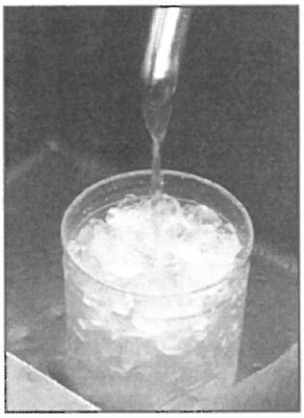


Infrared Thermometers

- Used to measure surface temperature of food/equipment
- Must be held as close to product as possible
- Remove barriers between thermometer and product
- Follow manufacturer's guidelines

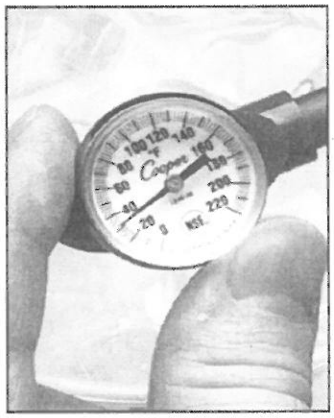
Calibrating Thermometers

Ice-Point Method



STEP 1: Fill container with crushed ice and water

STEP 2: Submerge sensing area of stem or probe for 30 seconds



STEP: 3 While keeping the thermometer submerged, hold calibration nut and rotate thermometer head until it reads 32°F (0°C)

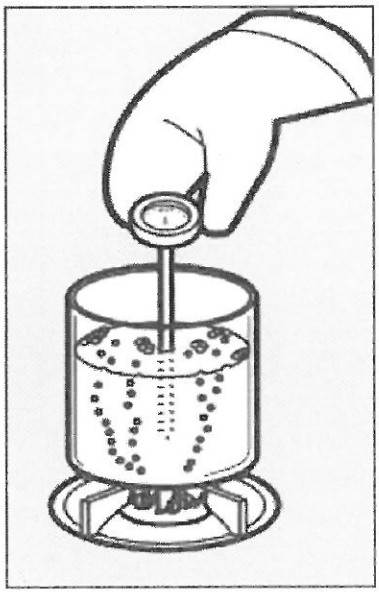
Boiling-Point Method

NOT RECOMMENDED UNLESS ICE IS NOT AVAILABLE. CAN RESULT IN SEVERE BURNS.

Step 1: **Bring a deep pan of water to a boil**

Step 2: Submerge sensing area of stem or probe for 30 seconds

Step 3: Hold calibration nut and rotate thermometer head until it reads 212°F (100°C)



SECTION 6
The Flow of Food: Purchasing and Receiving

General Purchasing and receiving Principles:

- **Buy only from suppliers who get their products from approved sources.** An approved food source is one that has been inspected and is in compliance with applicable with applicable local, state, and federal law.

- Make sure suppliers are reputable.

- Schedule deliveries for off-peak hours and receive only one delivery at a time.

- Make sure enough trained staff are available to promptly receive, inspect, and store food.

- Inspect deliveries carefully.

- Use properly calibrated thermometers to sample temperatures of received food items that require temperature controls for safety.

- Check shipments for intact packaging and signs of refreezing, prior wetness, and pest infestation.

- Inspect deliveries immediately and put items away as quickly as possible.

- Canned foods must be checked carefully for damage. Reject canned products wherein the can has swollen ends, leaks and flawed seals, rust, dents, and/or no labels.

Section 7
The Flow of Food: Storage

Rules for Safe Storage

1. First In, First Out, rotating guidelines (FIFO)
   a) Date label all foods received.
   b) Use older dated foods first.

2. Keep potentially hazardous foods out of the danger zone (41°F - 135°F).

3. Store food only in designated food storage area.

4. Store food in clean undamaged wrapper and containers.

5. Keep storage areas clean and dry, including dry storage, refrigerators, freezers, and hot holding units.

6. Keep vehicles for transporting food within the food service facility clean.

Types of Storage

- **Refrigerated storage** for short-term holding of perishable and potentially hazardous food items. Keep prepared foods no longer than 7 days.
  - Refrigeration slows the growth of microorganisms and helps keep them from multiplying to levels high enough to cause illness.
  - The refrigerator holds potentially hazardous food at 41°F or lower.
  - **To hold food at a specific internal temperature, refrigerator air temperature should be at least 2°F lower than the desired temperature.**
  - Do not overload the refrigerator.
  - Use open shelving.
  - Never place hot food in the refrigerator. Use the proper cooling method to rapidly chill the food to 41°F or lower.
  - **Live shellfish can be stored at 45°F ambient temperature.**

- Pasteurized canned crab meat must be stored at 38°F or lower.
- Keep the refrigerator door closed as much as possible.
- Store raw meat, poultry, and fish separately from cooked and ready-to-eat food to prevent cross-contamination.
    - ❖ If they cannot be stored separately, store cooked or ready-to-eat food above raw meat, poultry, and fish.
    - ❖ This will prevent raw product juices from dripping onto the prepared food and causing a foodborne illness.
- It is recommended that raw meat, poultry, and fish be stored in the following top-to-bottom order in the refrigerator:
        - Whole fish
        - Whole cuts of beef and pork
        - Ground meats and fish
        - Whole and ground poultry
        - This order is based upon the required minimum internal cooking temperature of each food.
- Wrap food properly.

- **Freezer storage** for longer-term storage. Freezing does not kill all microorganisms; however, it slows their growth substantially.

- **Deep chilling** in specially designed units for short periods of time.

- **Dry storage** for foods that do not require temperature control for safety.

    - Keep storerooms cool, dry, and well ventilated.
    - The temperature of the storeroom should be between 50°F and 70°F.
    - Keep relative humidity at fifty-to-sixty percent, if possible.
    - Keep dry food out of direct sunlight.
    - Keep the area clean.
    - Store dry food away from walls and at least six inches off the floor.

Section 8

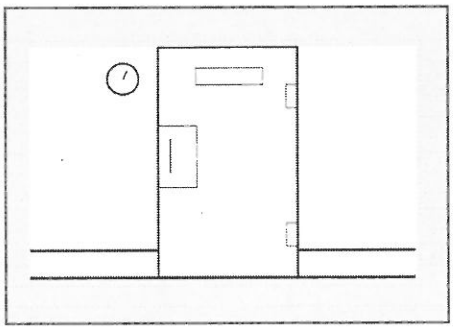
The Flow of Food: Preparation

Once food has been received and stored safety, it is essential that it be prepared, cooked, cooled, and reheated with just as much care. It is at these points in the flow of food that the risks of cross-contamination and time-temperature abuse are the greatest.

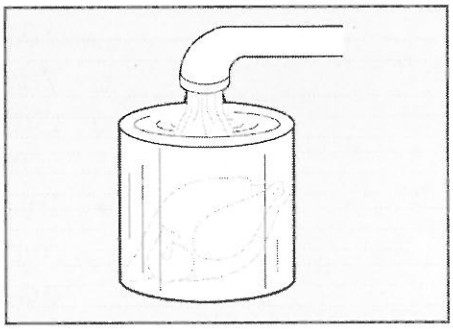
Thawing Food Properly

When frozen food is thawed and exposed to the temperature danger zone, any foodborne microorganisms present will begin to grow and multiply. There are only four acceptable methods for thawing potentially hazardous frozen food.

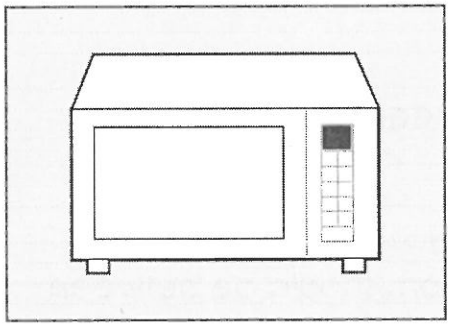
The Four Acceptable Methods for Thawing Food



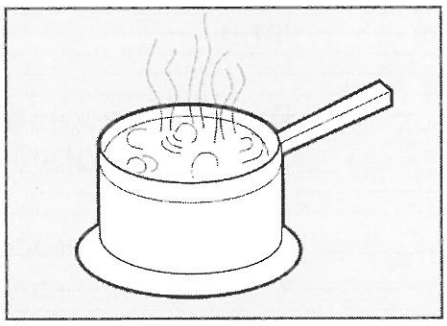
In a refrigerator, at 41°F (5°C) or lower



Submerged under running potable water, at a temperature of 70°F (21°C) or lower. ***Water flow must be strong enough to wash loose food particles into the overflow drain.***



In a microwave oven, if the food will be cooked immediately after thawing.



As part of the cooking process. The product must meet the required minimum internal cooking temperature.

Preparing Specific Foods

Some food and types of preparation require a bit more care.

Meat, Fish, and Poultry – Follow these additional guidelines when working with raw meat, poultry, and seafood:

- Use clean and sanitized work areas, cutting boards, knives, and utensils. Wash, rinse and sanitize meat slicers and utensils at least once every four hours.
- Wash hands properly.
- Remove from refrigerated storage only as much product as you can prepare at one time.
- Return raw prepared meats to refrigeration, or cook them as quickly as possible.
- **Washing raw poultry, beef, pork, lamb, or veal before cooking it is not recommended. Bacteria in raw meat and poultry juices can be spread to other foods, utensils, and surfaces.**

Salads Containing Potentially Hazardous Food – Chicken, tuna, egg, pasta; and potato salads have been known to cause foodborne-illness outbreaks. Since they are not typically cooked after preparation, there is no chance to kill microorganisms that may have been introduced during preparation. Therefore, care must be taken when preparing these salads. Follow these preparation guidelines:

- Make sure leftover meat and poultry have been properly cooked, held, cooled and stored before adding them to salad.
- Make sure leftovers used for salad have not been left in the refrigerator too long.
- Leave food in the refrigerator until all ingredients are ready to be mixed.
- Consider chilling all ingredients and utensils before using them to make salad.
- Prepare food in small batches, so large amounts of food do not sit out at room temperature for long periods of time.

Eggs and Egg Mixtures - All untreated shell eggs are considered potentially hazardous. When preparing eggs and egg mixtures, follow these guidelines:

- Handle pooled eggs (if allowed) with special care.
- Operations that serve high-risk populations, such as those in hospitals and nursing homes, using pasteurized eggs or egg products is recommended.
- Promptly clean and sanitize all equipment and utensils used to prepare eggs.
- Consider using pasteurized shell eggs or pasteurized egg products when preparing egg dishes requiring little or no cooking.

Batter and Breading – If prepared with milk or eggs, batter and breading are at risk for time-temperature abuse and cross-contamination, so they should be handled with care. If you make breaded or battered food from scratch, follow these guidelines:

- Prepare batter in small batches.
- When breading food that will be cooked at a later time, transfer it to the refrigerator as quickly as possible.
- Throw out any unused batter or breading after each shift.
- Consider making batter with pasteurized shell eggs or egg products whenever possible.

Fruit and Vegetables – When preparing fruit and vegetables, follow these guidelines:

- Make sure fruit and vegetables do not come in contact with surfaces exposed to raw meat and poultry.
- Wash fruit and vegetables thoroughly under running water to remove dirt and other contaminants before cutting, cooking, or combining with other ingredients.
- Refrigerate and hold cut melons at 41°F or lower since they are potentially hazardous food.
- Do not add sulfites (preservatives that maintain freshness) to food.
- If your establishment primarily serves high-risk populations, do not serve raw seed sprouts.

Fresh Juice – Many establishments prepare fresh fruit and vegetable juice on-site for their customers. However, if the juice is packaged on-site for sale at a later time, the establishment must have a variance from the regulatory agency.

Ice

- Ice used as food or used to chill food must be made from drinking water.
- Ice used to chill food or beverages should never be used as an ingredient.
- Use a clean, sanitized container and ice scoop to transfer ice from an ice machine to other containers

Cooking – While cooking to the required minimum internal temperature is the only way to sufficiently reduce the number of foodborne microorganisms to safe levels, it does not destroy spores or toxins these microorganisms create.

Minimum Internal Cooking Temperature – The required cooking temperature the internal portion of food must reach in order to sufficiently reduce the number of microorganisms that might be present.

- This temperature is specific to the type of food being cooked.
- Food must reach and hold its minimum internal temperature for a specified amount of time.

Cooking Requirements for Specific Types of Food

Product	Minimum Internal Cooking Temperature	Other Cooking Requirements and Recommendations
Poultry	**165°F for 15 seconds**	Poultry have more types and higher counts of microorganisms than other meat. Therefore, it should be cooked more thoroughly.
Stuffing and Stuffed Meat	**165°F for 15 seconds**	Stuffing poses a hazard because it can be made with potentially hazardous food. It acts as insulation, preventing heat from reaching the center of meat or poultry. Stuffing should be cooked separately, particularly when cooking whole, large birds or large cuts of meat.
Dishes that Include Potentially Hazardous Ingredients When including previously cooked, potentially hazardous ingredients in the dish When including raw potentially hazardous ingredients in the dish	Cook the ingredients to **165 °F for 15 seconds.** Cook the raw ingredients to their required minimum internal temperature.	Example: when adding cooked ground beef to a red sauce, the beef within the dish must be reheated to 165°F for 15 seconds within 2 hours. Example: when cooking jambalaya you must ensure that the raw shrimp reaches 145°F for 15 seconds.
Ground Meats (including beef, pork, and other meat or fish)	**155°F for 15 seconds**	Most whole-muscle cuts of meats are likely to have microorganisms only on their surface. When meat is ground, microorganisms on the surface are mixed throughout the product. Ground meat may also be cooked to the following alternative internal temperatures: 145°F for 3 minutes 150°F for 1 minute 155°F for 15 seconds 158°F for <1 second
Injected Meats (included brined ham and flavor-injected roasts)	**155°F for 15 seconds**	When meats are injected, foodborne microorganisms on the surface can be carried into the interior. Injected meat may also be cooked to the following alternative internal temperatures: 145°F for 3 minutes 150°F for 1 minutes 155°F for 15 seconds 158°F for <1 seconds

Pork, Beef, Veal, Lamb	Steaks/Chops **145°F for 15 seconds** Roasts: **145°F for 4 minutes**	This temperature is high enough to destroy *Trichinella* spp. larvae that might have contaminated pork. Depending upon the type of roast and the oven used, roasts may be cooked to the following alternative internal temperatures: 130°F for 121 minutes 131°F for 89 minutes 133°F for 56 minutes 135°F for 36 minutes 136°F for 28 minutes 138°F for 18 minutes 140°F for 12 minutes 142°F for 8 minutes 144°F for 5 minutes 145°F for 4 minutes
Fish **Stuffed Fish (or stuffing containing fish)** **Ground, Chopped, or Minced Fish**	**145°F for 15 seconds** **165°F for 15 seconds** **155°F for 15 seconds**	
Shell Eggs for Immediate Service **Shell Eggs That Will Be Hot-Held for Service**	**145°F for 15 seconds** **155°F for 15 seconds**	When cooking eggs, remove from storage only as many eggs as you need for immediate use. Never stack eggs trays (flats) near the grill or stove.
Fruit or Vegetables That Will Be Hot-Held for Service	**135°F for 15 seconds**	Cooked vegetables must never be held at room temperature.
Commercially Processed, Ready-To-Eat Food That Will Be Hot-Held for Service	**135°F for 15 seconds**	This includes items such as cheese sticks, deep-fried vegetables, chicken wings, etc.
Potentially Hazardous Food Cooked in the Microwave **(eggs, poultry, fish, and meat)**	**165°F for 15 seconds**	Cover it to prevent the surface from drying out. Rotate or stir it halfway through the cooking process to distribute the heat more evenly. Let it stand for at least 2 minutes after cooking to let the product temperature equalize. Check the temperature in several places to ensure that it is cooked through.

Cooling Food

When cooked food will not be served immediately, it is essential to hold it properly or to cool it as quickly as possible. Food must be cooled in two-stages:

- From 135°F to 70°F within two hours
- From 70°F to 41°F or lower in an additional four hours, for a total cooling time of six hours.

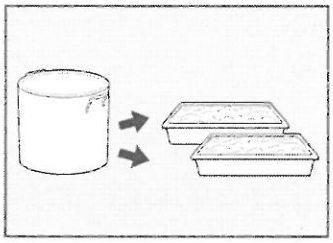
When using two-stage cooling, if the food has not reached 70°F within two hours, it must be discarded or properly reheated. Reheat the food to 165°F for fifteen seconds within two hours and then cool it properly.

Methods for Cooling Food

Several factors affect how quickly food will cool. These include:

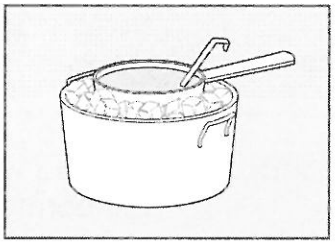
- The thickness or density of the food being cooled.
- The container in which a food item is stored.

Safe methods for cooling food include:

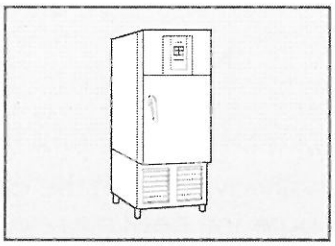


Reduce the quantity or size of the food you are cooling.

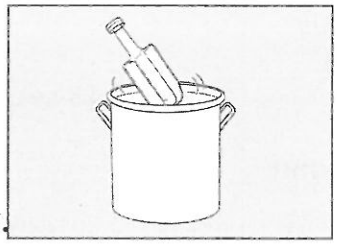
Use ice-water baths.



Use a blast chiller to cool food before placing it into refrigeration.



Stir food to cool it faster and more evenly.



Section 9
The Flow of Food: Service

The job of protecting food continues even after it has been prepared and cooked properly, since microorganisms can still contaminate food before it is eaten. The key to serving safe food is to prevent time-temperature abuse and cross-contamination. Hold, display, and serve food at the right temperature, and handle it safety. People do many things without knowing their actions can lead to contamination.

General Rules for Holding Food

- Check the internal temperature of food using a thermometer.
- Check the temperature of food at least every four hours. **Checking the temperature every two hours will leave time for corrective action.**
- Establish a policy to ensure that food being held for service will be discarded after a predetermined amount of time.
- Protect food from contaminants with covers or sneeze guards.
- Prepare food in small batches so it will be used faster.

Hot Food

- Potentially hazardous, hot food must be held at an internal temperature of **135°F.**
- Only use hot-holding equipment that can keep food at the proper temperature.
- Never use hot-holding equipment to reheat food if it is not designed to do so.
- Stir food at regular internals to distribute heat evenly.

Reheating for Hot Holding

- Food reheated for hot holding should reach 165°F or higher within 2 hours. Reheat sauces, soups and gravies by bringing them to a rolling boil.

- When reheating in the microwave, cover and rotate the food for even heating. Check the temperature of the food in several places with a food thermometer and allow a resting time.

- If a large container of leftovers was frozen and only a portion of it is needed, it is safe to thaw the leftovers in the refrigerator, remove the needed portion and refreeze the remainder of the thawed leftovers without reheating it.

Cold Food

- Potentially hazardous, cold food must be held at an internal temperature of 41°F or lower.

- Only use cold-holding equipment that can keep food at the proper temperature.

- Do not store food directly on ice.

Holding Ready-to-Eat, Potentially Hazardous Food without Temperature Control

- Prior to removing the food from temperature control ensure it has been held at 41°F or lower, or 135°F or higher.
- The food contains a label that specifies when the item must be discarded.
- The food must be sold, served or discarded within two hours per Department of Health and Mental Hygiene Requirements. The Food Code recommends four hours.
- The Code of Baltimore County Regulations 1.01.01 governing Food Service Facilities states that this practice must be approval by the Department prior to implementation within an establishment.

Serving Food Safety

Kitchen Staff

- Serve with serving utensils properly.
- Use serving utensils with long handles.
- Use clean and sanitized utensils for serving.
- NO bare-hand contact with food that is cooked or ready-to-eat is allowed.
- Practice good personal hygiene.

Servers

Food servers need to be just as careful as kitchen staff. If they are not careful, they can contaminate food simply by handling the food-contact surfaces of glassware, dishes, and utensils.
Hold dishes by bottom or edge.
Hold flatware by handle.
Use utensils to handle foods, including ice.

Consumer advisories

- Menu items that are raw or undercooked must be labeled with a consumer advisory.
- Advisory should include risks involved with consuming undercooked foods.
- Undercooked meat, poultry, seafood, or eggs should not be offered to children or high risk populations.
- Example: This item is served raw or undercooked, or contains (or may contain) raw of undercooked ingredients. Consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase your risk of foodborne illness, especially if you have certain medical conditions.

Section 10

Food Safety Systems

You learned in previous sections how to handle food safely as it flows through the establishment from receiving, storage, and preparation through cooking, holding, cooling, and reheating. This accumulated knowledge will help you develop a food safety management system to prevent foodborne illness by actively controlling hazards throughout the flow of food.

This management system should include procedures for the following:

- Personal hygiene
- Cleaning and sanitation
- Equipment maintenance
- Monitoring and documentation
- Employee illness
- Food safety and quality
- Pest control
- Food safety training

Periodically, the food manager should review the food safety system:

- Determine if the plan is working as intended.
- Plan to evaluate on a regular basis your monitoring charts, records, how you performed your hazard analysis, etc., and determine if your plan adequately prevents, reduces, or eliminates risks.
- Maintain and update your plan.
- Organize records obtained while performing monitoring activities, whenever a corrective action is taken, when equipment is validated, and when working with suppliers.

HACCP

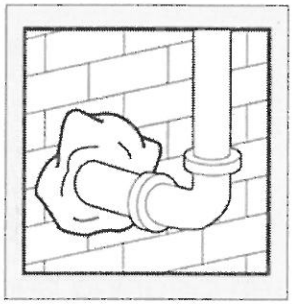
A food safety management system may also include a Hazard Analysis Critical Control Point (HACCP) system. A HACCP (pronounced *Hass-ip)* system is based on the idea that if significant biological, chemical, or physical hazards are identified at points within a product's flow through an operation, they can be prevented, eliminated, or reduced to safe levels. HACCP plans contain a certain number of Critical Control Points (CCP). A Critical Control Point is a point, step or procedure at which controls can be applied and a food safety hazard can be prevented, eliminated or reduced. The most common CCP is cooking to a proper internal temperature. If a CCP is not met, then a Corrective Action (determined in advance) is to be taken to meet the CCP.

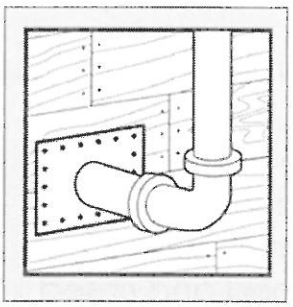
Section 11

Integrated Pest Management (IPM)

Purchasing food from approved sources does not guarantee that it will be completely free of pests. Insects and rodents – potential sources of contamination of equipment and food – can be controlled in your establishment by offering them little in the way of food, water and shelter.

Three Rules of Integrated Pest Management





1. Deny pests access to establishment

- Inspect deliveries for pests
- Screen windows & vents
- Seal cracks and crevices in floors, walls, and seams in equipment where possible
- Fill holes around pipes with permanent sealants and escutcheon plates

2. Deny pests food, water, and shelter

- Dispose of garbage quickly
- Keep garbage container clean/tightly covered
- Store food/supplies away from walls and at least 6 inches off the floor
- Follow FIFO so pests do not have time inhabit and breed.

3. Work with a licensed pest control operator (PCO) to eliminate pests that do enter

- Record time, date and location of any signs of pests and report this to your PCO
- Prepare the area to be treated by removing all food and moveable food contact surfaces
- Cover equipment and food contact surfaces that cannot be moved.
- Wash, rinse, and sanitize food contact surfaces after the chemicals have been applied. (Exception: Be careful to not contaminate pesticide baits with cleaning products)

Identifying Pests

Signs of a cockroach infestation

- Strong, oily odor
- Droppings that look like grains of black pepper
- Capsule-shaped eggs cases that are brown, dark red, or black

Signs of a rodent infestation

- Black droppings that are sometimes shiny (fresh) from size of grains of rice to size of raisin
- Evidence of gnawing
- Dark dirt tracks especially on light colored walls
- Nesting material of scraps of paper, cloth, hair, insulation, other soft materials
- Burrows in dirt or holes in doors/walls

Section 12

Cleaning and Sanitizing

It is important to understand the difference between cleaning and sanitizing.

- Cleaning is the process of removing food and other types of soil from a surface.
- Sanitizing is the process of reducing the number of microorganisms on that surface to safe levels.
- To be effective, cleaning and sanitizing must be a three-step process. Surfaces must *first* be cleaned and rinsed *before* being sanitized.

Cleaning agents

- They are divided into four categories: detergents, solvent cleaners, acid cleaners, and abrasive cleaners.
- They are chemical compounds that remove food, soil, rust, minerals, or other deposits. They must be stable, noncorrosive, and safe for employee use.
- Cleaning agents work best when used in accordance with the manufacturer's instructions.

Sanitizing-- There are two methods used to sanitize surfaces:

Heat Sanitizing – The most common way to heat-sanitize tableware, utensils, or equipment is to immerse or spray the items with hot water, 180°F at 15 pound per square inch (psi). Read the warewashing machine or dishmachine instruction manual for the correct procedures for operating and using the machine. Heat sanitizing can also be done in the third compartment of the manual three-compartment sink.

Chemical Sanitizing – Widely used in establishments because they are effective, reasonably priced, and easy to use. They are regulated by state and federal environmental protection agencies. The three most common types are shown below:

	Chlorine	**Iodine**	**Quats**
Water Temperature	≥ 100°F	68°F	75°F
Sanitizer Concentration	50-99 ppm	12.5 – 25 ppm	Read the label
Sanitizer Contact Time	≥ 7 sec	≥ 30 sec	≥ 30 sec

Concentration –

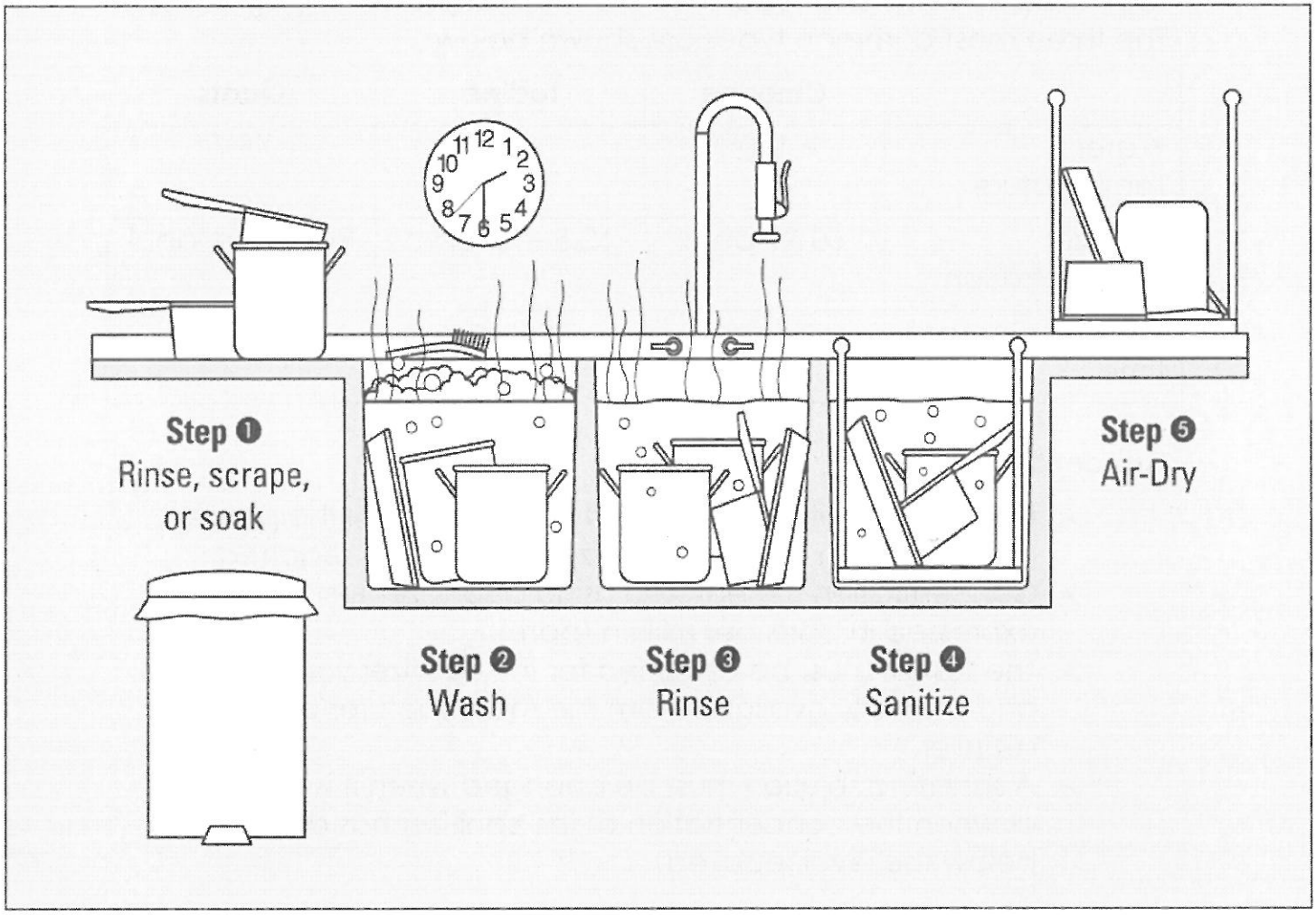
- Chemical sanitizers are mixed with water until the proper concentration – ratio of sanitizer to water – is reached.
- Concentration is measured using a sanitizer test kit and is expressed in parts per million (ppm).
- The test kit must be designed for the sanitizer you are using and is usually available from the manufacturer or your supplier.
- A sanitizing solution must be changed when it is visibly dirty or when the concentration of the sanitizer has dropped below the level required.

Cleaning and sanitizing in a Three-Compartment Sink

Before cleaning and sanitizing items in a three-compartment sink, each sink and all work surfaces must be cleaned and sanitized.

Steps for Cleaning and Sanitizing

1. Rinse, scrape, or soak all items before washing.
2. Wash items in the first sink in a detergent solution at least 110°F.
3. Immerse or spray-rinse items in the second sink using clean water at least 110°F.
4. Immerse items in the third sink in hot water or a chemical-sanitizing solution.
5. Air-dry items. NEVER towel dry.



Stationary Equipment – Immobile food preparation equipment comes with manufacturer's instructions to disassemble, clean, and sanitize. In general:

- Turn off and unplug equipment before cleaning.
- Remove food and soil from under and around the equipment.
- Remove detachable parts and manually wash, rinse, and them, or run them through a warewasher if permitted. Allow them to air-dry.
- Wash and rinse fixed food-contact surfaces, then wipe or spray them with a chemical-sanitizing solution.
- Air-dry all part, then reassemble according to directions.
- Resanitize food-contact surfaces handled when putting the unit together by wiping with a cloth that has been submerged in sanitizing solution.

When storing clean and sanitized tableware and equipment

- Store it 18 inches off the floor
- Clean and sanitize drawers/shelves before items are stored
- Store glasses/cups upside down
- Store flatware/utensils with handles up
- Cover equipment food-contact surfaces until ready for use

Developing a Master Cleaning Schedule:

- Include what should be cleaned and how often
- Train staff and volunteers to follow it
- Monitor to ensure correct priority and completion of tasks

When storing cleaning tools and supplies:

- Clean and sanitize them before storage
- Place in a locked area away from food and food-preparation areas
- Air-dry wiping cloths and buckets overnight
- Air-dry mops, brooms, and brushes on hooks

When handling chemicals:

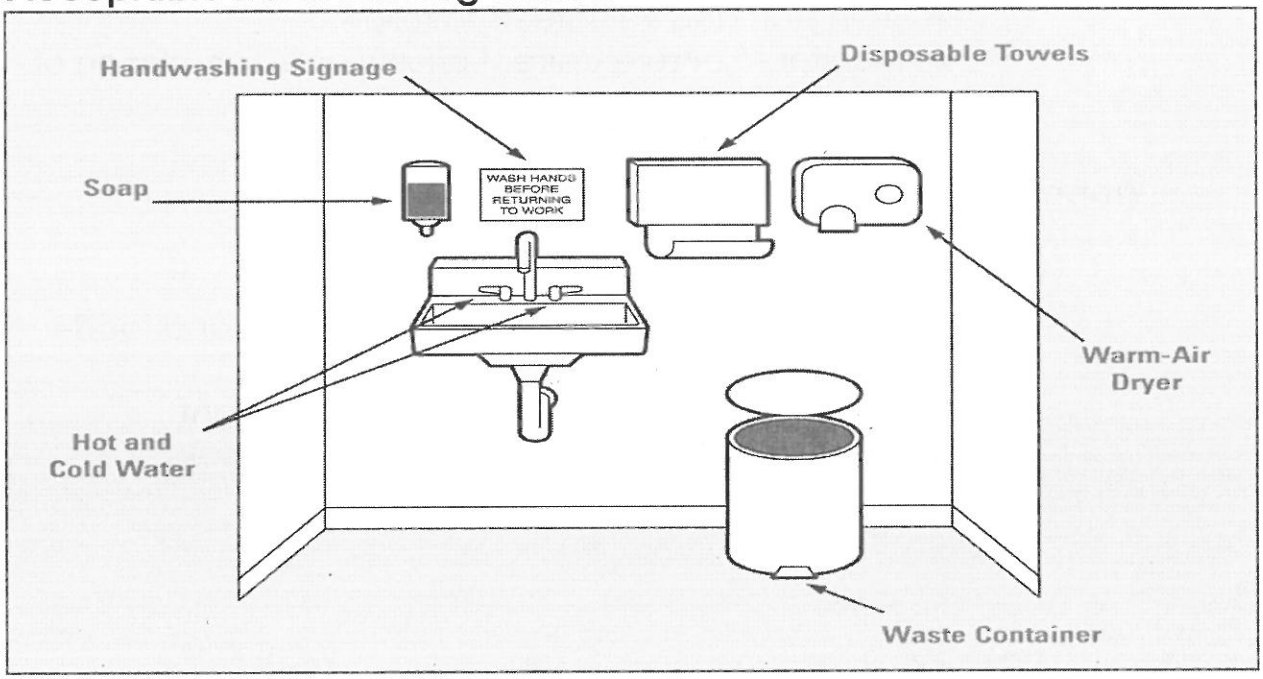
- Only purchase those approved for restaurant/foodservice use
- Follow manufacturer's instructions/local regulations when discarding
- Label containers with:
  - * Chemical's name
  - * Manufacturer's name/address
  - * Description of potential hazards
- Keep Material Safety Data Sheets (MSDS) for each chemical
  - * Contains safe use and handling procedures
  - * Has first aid information
  - * States hazardous ingredients and identity information.

Plans Review

When designing or remodeling a facility, consider how the building and equipment in each area will be kept clean and maintained in good repair. Facilities should be arranged in accordance with the flow of food through the establishment with soiled areas on the outer areas.

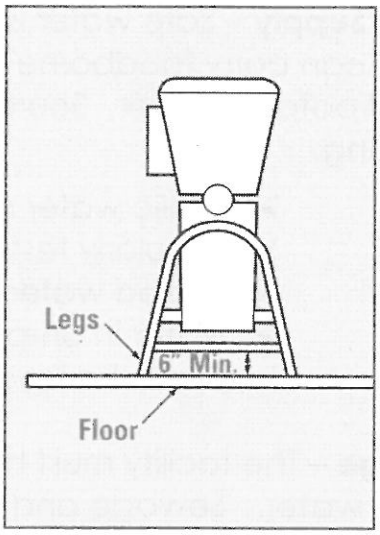
For all construction details or advice contact Department of Environmental Protection & Resource Management, Environmental Health Section –Plans Review at 410-887-3663.

Acceptable Handwashing Station



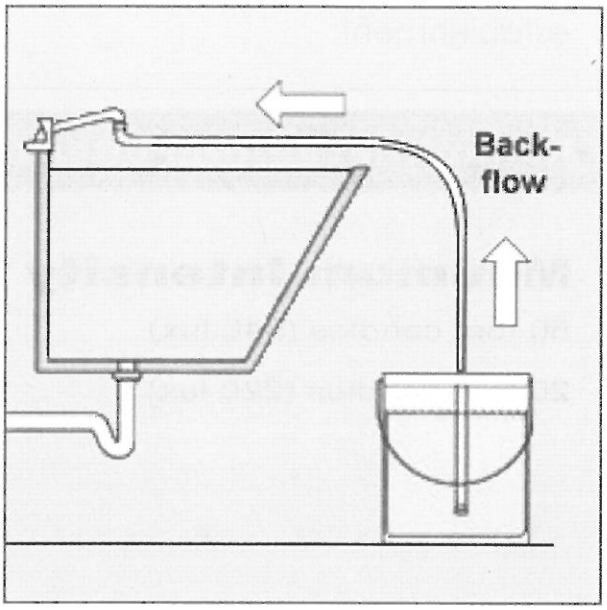
Installing Stationary Equipment:

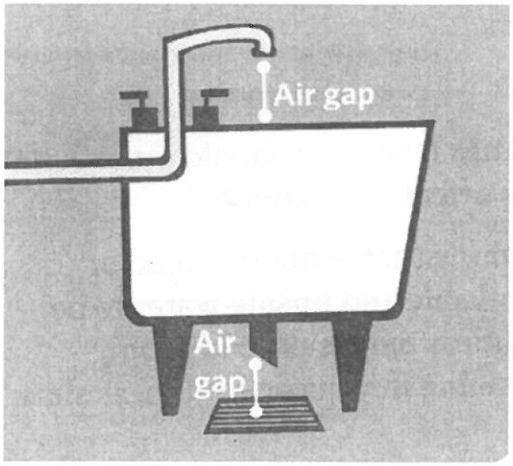
Stationary equipment must be mounted on legs at least six inches off the floor.



Common Cross-Connection

A hose connected to a faucet and left submerged in a mop bucket creates a dangerous cross-connection. Cross connections can also be found in soda dispensers and other equipment where a back flow prevention device is not installed.





Air Gaps

Air gaps are air spaces on a sink or drain. These are usually found at the faucet and at the floor drain. Air gaps also prevent cross connections by allowing a space between the outlet and the flood level of the basin or drain. This lack of direct connection between a water supply and any potentially contaminated solution.

Water Supply – Safe water is vital in an establishment since unsafe water can carry foodborne pathogens. Water that is safe to drink is called potable water. Source of potable water include the following:

- Public water mains
- Regularly tested private sources
- Bottled water
- Water in on-premise water-storage tanks
- Water transport vehicles that are properly maintained

Sewage – The facility must have adequate drainage to handle all waste water. Sewage and waste water are contaminated with pathogens, soils, and chemicals. It is absolutely essential to prevent them from contaminating food or food contact surfaces. **A backup of raw sewage is cause for immediate closure of the establishment, correction of the problem, and thorough cleaning.**

Lighting is a basic requirement for maintaining a clean and sanitary establishment:

Minimum Lighting Intensity Requirements

Minimum Intensity	Area
50 foot candles (540 lux)	Food-preparation areas
20 foot-candles (220 lux)	Handwashing or warewashing areas
	Buffets and salad bars
	Displays for produce or packaged food
	Utensil-storage areas
	Wait stations
	Restrooms
	Inside some pieces of equipment
10 foot-candles (110 lux)	Inside walk-in refrigerators and freezers
	Dry-storage areas
	Dining rooms (for cleaning)

Other requirements such as plumbing, ventilation, and garbage disposal will be addressed at the time of plan review or during the regulatory inspection process.

Section 13
Regulation & Compliance

Health Inspections

- Evaluate whether the establishment is meeting minimum sanitation and food safety standards.
- Protect the public's health by requiring establishments to provide food that is safe, uncontaminated, and presented properly.
- Convey new food safety information to an establishment.
- Provide an establishment with a written report, noting deficiencies, so it can be brought into compliance with safe food practices.

To Prepare for A Health Inspection:

- Know your local and state sanitation regulations
- Perform continuous self-inspections
- Ensure that your staff knows what to do in your absence

During A Health Inspection:

- Ask for identification
- Cooperate
- Take notes
- Keep the relationship professional
- Be prepared to provide records
- Discuss violations and time frames for correction with the inspector
- Follow up by determining why each violation occurred

Hazards requiring the closure of an establishment include:

- **Significant lack of refrigeration**
- **Backup of sewage**
- **An emergency (fire, flood, lack of water, etc.)**
- **Serious pest infestation**
- **Interruption of electrical/water service**

References

Educational Foundation of the National Restaurant Association, ServSafe, 6th Edition, National Restaurant Association Foundation, 2012.

Educational Foundation of the National Restaurant Association, ServSafe Instructor Guide, Third Edition, National Restaurant Association Foundation, 2004.

Educational Foundation of the National Restaurant Association, ServSafe Instructor Guide CD-ROM, Third Edition, Version 1.0, National Restaurant Association Foundation, 2004.

Golshiri, Ali Basic Food Service Sanitation – A Certification Coursebook , Second Edition, Prince George's County Health Department, 1995.

Code of Baltimore County Regulations (COBCR) 1.01.01 Food Service Regulations, 2009.

US Department of Health and Human Services, Public Health Service, Food and Drug Administration (FDA), 2005 Food Code, 2007.

BALTIMORE COUNTY, MARYLAND
DEPARTMENT OF HEALTH
FOOD SERVICE FACILITY INSPECTION REPORT

AUTHORITY: Health-General Article §§21-211, 21-313 & 21-314, Annotated Code of Maryland; Baltimore County Charter §539; Articles 3-2-604, 3-2-605, 13-1-101 thru 13-1-104, and 13-10-101 of the Baltimore County Code.

Date:	Start Time:	Stop Time:	Inspection ID:
Facility Name:			Permit:
Facility Address:		District:	Program ID:
		Phone:	Priority:
Purpose:		Reinspection Required:	Circle Yes or No
Result:		Reinspection Date:	
Action:			

PREFACE: The items marked below identify violations of COBCR 1.01.01 and COMAR 10.15.03 governing Food Service Facilities. Failure to comply with any time limits may result in suspension or revocation of your food service facility permit as well as other penalties. Critical items must be corrected immediately at the time of inspection. Good Retail Practices must be corrected as specified in a written compliance schedule or within 30 days. The operator of Temporary and Other Special Facilities must correct Good Retail Practices at the time of inspection or within 24 hours.

CRITICAL ITEMS

Critical Items are food safety requirements, which must be followed to reduce the incidence of food-related illness and injury

Circle the applicable compliance status observed for the following critical items during this inspection.

IN = In Compliance
OUT = Not In Compliance
N/O = Not Observed
N/A = Not Applicable

Mark an "X" for applicable items under COS and R where:
COS = Corrected on-site during inspection
R = Repeat violation

Compliance Status		COS	R
Food Source and Protection			
01 IN OUT	Food must be obtained from approved sources		
02 IN OUT	Adulteration, Spoilage and Contamination of Food		
Employee Health and Hand Washing			
03 IN OUT	Food workers with infection/diarrhea restricted		
04 IN OUT N/O	Hands clean and properly washed		

Compliance Status		COS	R
Potentially Hazardous Food			
05 IN OUT N/O N/A	Cooling: time and temperature		
06a IN OUT N/O N/A	Cold Holding temperature		
06b IN OUT N/O N/A	Hot holding temperature		
07a IN OUT N/O N/A	Cooking time and temperature		
07b IN OUT N/O N/A	Reheating time and temperature		
Water and Sewage			
08 IN OUT	Potable hot and cold running water provided		
09 IN OUT	Sewage discharged in accordance with all codes		

GOOD RETAIL PRACTICES

Mark an "X" in box to the right of the item number if not in compliance

Good Retail Practices are preventative measures to control the introduction of pathogens, chemicals and physical objects into foods.

Mark an "X" for applicable items under COS and R where:
COS = corrected on-site during inspection
R = repeat violation

			COS	R
Food Temperature Control				
10		Thawing methods		
11		Cooling methods		
12		Time-only: procedures and record keeping		
13		Thermometers provided and accurate		
Food Identification				
14		Labeling accurate, truthful, date		
15		Shellfish tags, egg records available		
Prevention of Food Adulteration, Spoilage and Contamination				
16		Practices during food prep, storage & display		
17		Personal cleanliness		
18		No bare hand contact with ready-to-eat food		
19		Ample handwash facilities supplied & accessible		
20		Toxic substances: use, storage, labeling		
21		Wiping cloths: properly used and stored		
22		Insects and animals: presence, harborage, control		

			COS	R
Utensils and Equipment - Design, Installation and Storage				
23		Single service articles: use, storage, dispensing		
24		Cleaned and sanitized surfaces and storage		
25		Design, construction & use of surfaces & equipment		
26		Warewashing facilities and test strips		
Physical Facilities				
27		Garbage properly disposed; facilities maintained		
28		Plumbing installed; proper backflow devices		
29		Toilet facilities: construction, supplied, clean		
30		Non-food surfaces installed, maintained, & clean		
31		Adequate ventilation and lighting		
Miscellaneous				
32		License, choking poster & consumer advisory		
Risk Factor				
33		HACCP plan complies with requirements		
34		CM present, knowledgeable, and performs duties		
35		FOG Program and BMP		

Operator (Print)_____ Sanitarian: (Print)_____

(Signature)_____ (Signature)_____

Contact Phone: _____ Date: / / Phone: (410)887-FOOD (3663) Date: / /

Refrigeration Log

Instructions: A designated foodservice employee will record the location or description of holding unit, date, time, air temperature, corrective action, and initials on this log. The foodservice manager will verify that foodservice employees have taken the required temperatures by visually monitoring food employees during the shift and reviewing, initialing, and dating this log daily. Maintain this log for a minimum of 1 year.

Date	Time	Temperature	Time	Temperature	Corrective Action	Food Worker Initials	Manager Initials
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
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31							

Month:_____

Cooking, Hot Holding & Reheating Temperature Log

Instructions: Record product name, time, the two temperatures/times, and any corrective action taken on this form. The foodservice manager will verify that foodservice employees have taken the required cooking temperatures by visually monitoring foodservice employees and preparation procedures during the shift and reviewing, initialing, and dating this log daily. Maintain this log for a minimum of 1 year.

Date	Food Item	Time	Internal Temperature	Time	Internal Temperature	Correction Action Taken	Food Worker Initials	Manager Initials
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
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Month:_____

COOLING TEMPERATURE LOG

Instructions: Record temperatures every hour during the cooling cycle. Record corrective actions, if applicable. If no foods are cooled on any working day, indicate "No Foods Cooled" in the Food Item column. The foodservice manager will verify that the foodservice staff is cooling food properly by visually monitoring foodservice employees during the shift and reviewing, initialing, and dating this log daily. Maintain this log for a minimum of 1 year.

Date	Food Item	Time/ Temp	Time/ Temp	Time/ Temp	Time/ Temp	Corrective Actions Taken	Food Worker Initials	Manager initials
1								
2								
3								
4								
5								
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Month:_____

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Important Temperatures

Temperature Danger Zone	41° F - 135 ° F

Cooking Temperatures (at 15 seconds)

All Poultry Products	165° F
Stuffing and Stuffed Meats	
Stuffed Fish	
Reheating all foods	
Cooking in Microwave	

Ground Meats	155° F
Ground Fish	
Injected Meats	
Shell eggs for Hot Holding	

Steaks/Chops	145° F
Roasts (at 4 minutes)	
Fish filets	
Shell eggs for immediate Service	

Fruits or Vegetables	None for immediate service
Commercially Processed foods	135°F for hot holding

Hot Holding	135° F

Cold Holding	41° F

Cooling (Within 2 hours)	135° F - 70° F
Cooling (4 additional hours)	70° F - 41° F