

Keeping Safe: Food, Fundraisers, Potlucks & Picnics

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Introduction

This lesson helps volunteers and community groups reduce foodborne illness risk when preparing, transporting, serving, and storing food at group events (fundraisers, potlucks, and picnics). Emphasis is on controlling time/temperature, preventing cross-contamination, and using a food thermometer.

The Stations & Activities

- EHC leaders
- Adult audiences

Objectives

Participants will be able to:

- Describe the fundamentals of food safety.
- Identify the temperature “danger zone” and the 2-hour/1-hour rule.
- Demonstrate correct thermometer placement and describe when to calibrate.
- Select safe hot/cold holding methods for buffets and outdoor events.
- Choose safe cooling, storage, and leftover practices after events.
- Utilize the clean, separate, cook, and chill practices during group events.

Main Teaching Points

- What Is Foodborne Illness
- How Bacteria Get Into Food
- Avoid Cross-Contamination
- Event-Specific Food Safety
- Allergen & Ingredient Labeling
- 4-Steps To Food Safety
- Shopping, Serving, and Storing Food Safely
- Why and How to Use a Food Thermometer



Main Teaching Points

- Handout 1: Common Germs That Can Cause Foodborne Illness
- Handout 2: Cold Storage Chart
- Handout 3: Safe Internal Temperature Chart
- Handout 4: How to Calibrate a Bimetallic Stemmed Thermometer

Suggestions for Teaching

- Review the lesson introduction and study the major teaching points.
- Make copies of:
 - Handout 1: Common Germs That Can Cause Foodborne Illness
 - Handout 2: Cold Storage Chart
 - Handout 3: Safe Internal Temperature Chart
 - Handout 4: How to Calibrate a Bimetallic Stemmed Thermometer
- Activity 1: Workstation Demonstration: Calibrating a Bimetallic Stemmed Thermometer Using the Ice-Point Method
- Activity 2: Workstation Demonstrations: Clean, Separate, Cook, and Chill

What Is Foodborne Illness?

Foodborne illness often presents itself as flu-like symptoms such as nausea, vomiting, diarrhea, or fever, so many people may not recognize that the illness is caused by bacteria or other pathogens in food. Foodborne illness, often referred to as “food poisoning,” results from consuming contaminated food. When food is not handled properly, microorganisms that cause foodborne illness can contaminate it. These include bacteria, viruses, parasites, and molds. All can cause serious illnesses, but bacteria are the most common culprit.

Thousands of types of bacteria are naturally present in our environment. Not all bacteria cause disease in humans. For example, some bacteria are used beneficially in the production of cheese and yogurt.

Bacteria that cause disease are referred to as pathogens. When certain pathogens enter the food supply, they can cause foodborne illness. Millions of cases of foodborne illness occur each year. Most cases of foodborne illness can be prevented. Proper cooking or processing of food destroys bacteria.

Age and physical condition place some individuals at a higher risk than others, regardless of the type of bacteria involved. Very young children, pregnant women, the elderly, and people with compromised immune systems are at greatest risk from any pathogen. Some people may become ill after ingesting only a few harmful bacteria; others may remain symptom-free after ingesting thousands.

Distribute **Handout 1** and discuss (**Handout 1: Common Germs That Can Cause Foodborne Illness**).

How Bacteria Get Into Food

Bacteria may be present on products when you purchase them. Plastic-wrapped boneless chicken breasts and ground meat, for example, were once part of live chickens or cattle. Raw meat, poultry, seafood, and eggs are not sterile. Neither is fresh produce such as lettuce, tomatoes, sprouts, or melons.

Food, including safely cooked, ready-to-eat foods, can become cross-contaminated with bacteria

transferred from raw products, meat juices, or other contaminated products or from food handlers with poor personal hygiene.

Avoid Cross-Contamination

Cross-contamination occurs when harmful bacteria are transferred to food from other foods, cutting boards, utensils, and similar items if they are not handled properly. This is especially true when handling raw meat, poultry, and seafood; therefore, keep these foods and their juices separate from already cooked or ready-to-eat foods and fresh produce. When handling foods, it is important to Be Smart. Keep Foods Apart – Don’t Cross Contaminate. By following these simple steps, you can prevent cross-contamination and reduce the risk of foodborne illness.

Shopping, Serving, and Storing Food Safely

Food safety involves several important steps to protect people from harmful bacteria that can cause foodborne illness. Many people are unaware that bacteria can be present on food products when they are purchased and during the handling and preparation of both ready-to-eat and cooked foods. That’s why it’s essential to follow basic food safety practices, especially when shopping, serving, and storing food.

Here are the U.S. Department of Agriculture (USDA) recommended tips for shopping, serving, and storing food safely:

Shopping:

- Purchase refrigerated or frozen items after selecting your nonperishables.
- Never choose meat or poultry in packaging that is torn or leaking.
- Separate raw meat, poultry, and seafood from other foods while shopping.
- Place meats at the bottom of the shopping cart to prevent juices from dripping onto other foods.

Serving:

- Hot food should be held at 140 °F or warmer.
- Cold food should be held at 40 °F or colder.
- When serving food at a buffet, keep hot food

hot with chafing dishes, slow cookers, and warming trays. Keep cold food cold by nesting dishes in bowls of ice or using small serving trays and replacing them often.

- Use a food thermometer to check hot and cold holding temperatures.
- Perishable food should not be left out for more than 2 hours at room temperature (1 hour when the temperature is above 90 °F).
- Use clean utensils and plates.
- Do not use the same cutting board or plate for cooked foods that was previously used for raw foods.

Storage:

- Always refrigerate perishable food within 2 hours (1 hour when the temperature is above 90 °F).
- Check the temperature of your refrigerator and freezer with an appliance thermometer. The refrigerator should be at 40 °F or below, and the freezer at 0 °F or below.
- Cook or freeze fresh poultry, fish, ground meats, and variety meats within 2 days; other beef, veal, lamb, or pork, within 3 to 5 days.
- Perishable food such as meat and poultry should be wrapped securely to maintain quality and to prevent meat juices from getting onto other food.
- To maintain quality when freezing meat and poultry in its original packaging, wrap it again with freezer-safe foil or plastic wrap.
- In general, high-acid canned food such as tomatoes, grapefruit, and pineapple can be stored unopened on the shelf for 12 to 18 months. Low-acid canned food, such as meat, poultry, fish, and most vegetables, will last 2 to 5 years if the unopened can remains in good condition and is stored in a cool, clean, and dry place. Discard cans that are dented, leaking, bulging, or have visible rust.

Following these guidelines will help keep your food safe and reduce the risk of foodborne illness.

Distribute and discuss **Handout 2: (Handout 2: Cold Storage Chart)**

How to Use This Handout

- Use it as a discussion guide when teaching about germs and food safety.

- Emphasize that proper cooking, cooling, and handwashing prevent most of these illnesses.
- Encourage participants to keep the handout at home near the refrigerator or recipe box as a quick reminder

Why and How to Use a Food Thermometer

Many people wonder why food thermometers are necessary when preparing meals. Using a food thermometer is the most reliable way to ensure foods reach the safe minimum internal temperature needed to destroy harmful bacteria. Most food thermometers provide accurate readings within 2°F to 4°F (see Calibration Section). However, accuracy depends on proper placement. If the thermometer is inserted incorrectly or in the wrong area, the reading will not reflect the true internal temperature.

Always check each piece of food to ensure it has reached the safe internal temperature. Size, quantity, and distribution can cause different pieces to cook at different rates. For large or irregularly shaped foods, such as a beef roast, check the temperature in several places.

How to Use a Food Thermometer Properly:

1. Insert the tip of the stem into the thickest part of the food, away from bone, fat, or gristle.
 - For thin foods, insert the thermometer through the side until it reaches the center.
2. Avoid touching the sides or bottom of the pan.
3. Hold in place for at least 15 seconds to get an accurate reading.

Distribute and Discuss **Handout 3: (Handout 3: Safe Internal Temperature Chart)**

Care of a Food Thermometer:

- Wash food thermometers with hot, soapy water or follow the manufacturer's instructions. Most thermometers should not be fully immersed in water; clean them carefully by hand.
- Use caution when using a food thermometer. Some models have plastic faces, which can melt if placed too close to heat or dropped in hot liquid. Do not leave your food thermometer in the food while cooking unless the

manufacturer's instructions specifically state that it can withstand heat and has been designed for this purpose.

Calibration: Ensuring Accurate Food Thermometer Readings:

- Calibration is the process of verifying and adjusting the accuracy of a food thermometer. Many thermometers include a calibration nut under the dial for easy adjustment. Regular calibration is essential to ensure accurate readings. The two most common methods are the ice-point method and the boiling-point method.

Distribute and discuss **Handout 4: (Handout 4: How to Calibrate a Bimetallic Stemmed Thermometer)**

Activity 1: Workstation Demonstration: Calibrating a Bimetallic Stemmed Thermometer Using the Ice-Point Method

Set up Stations:

Each station should include:

- A food thermometer
- A medium or large plastic or Styrofoam cup
- Ice and cold water
- A wrench (for adjusting the calibration nut)

Event-Specific Food Safety

- **Transport to event:** Keep cold foods in a cooler with ice/gel packs; keep the cooler closed; pack meats/seafood still cold (even partially frozen) when possible.
- **Outdoor setup:** Put cold dishes on ice; replace ice as it melts; keep coolers in shade.
- **Serving control:** Serve in small batches and refill from a cooler or hot source; don't 'top off' old trays, swap with a clean pan. (best practice for buffets; supports time/temperature control)
- **Leftovers rule:** If food has been above 40°F for 2+ hours (or 1+ hour above 90°F), discard it.
- **Food handler health:** Anyone with vomiting or diarrhea should not prepare or serve food for others.

Allergen & Ingredient Labeling

- Label common allergens and key ingredients when possible.
- Keep serving utensils with each dish to reduce cross-contact.

4 Steps To Food Safety

To reduce your risk of foodborne illnesses, everyone should follow these four simple steps.

Step 1 – Clean (Wash Hands and Surfaces Often)

- Wash hands with warm water and soap for 20 seconds before and after handling food and after using the bathroom, changing diapers, or handling pets.
- Wash cutting boards, dishes, utensils, and countertops with hot water and soap after they come in contact with raw meat, poultry, seafood, and eggs.
- Rinse raw produce in water. Don't use soap or detergents. If necessary, use a small produce brush to remove surface dirt.
- Wipe up spills in the refrigerator immediately and clean the refrigerator regularly.
- A solution of 1 teaspoon of bleach in 1 quart of water may be used to sanitize surfaces and utensils.

Step 2 – Separate (Don't Cross-Contaminate)

- Raw meat, poultry, and seafood can contain harmful bacteria, so keep these foods separate from other foods in your refrigerator.
- If possible, use one cutting board for raw meat, poultry, and seafood and another one for produce.
- Wash cutting boards, dishes, and utensils with hot water and soap after they come in contact with raw meat, poultry, seafood, and eggs.
- Place cooked food on a clean plate. Never place cooked food back on the same plate or cutting board that was used for raw food.

Step 3 – Cook (Cook Foods to a Safe Internal Temperature)

- Heating foods to the right temperature kills harmful bacteria, so cook meat, poultry, and seafood thoroughly. Use a clean food

thermometer to ensure the proper temperature is reached.

- People in the at-risk groups should not eat hot dogs and luncheon meats – unless they're reheated until steaming hot. They should also avoid eating refrigerated smoked seafood – unless it's in a cooked dish, such as a casserole.
- Cook eggs until the yolk and white are firm. If you use recipes that involve eggs remaining raw or only partially cooked, use pasteurized eggs and cook them to 160 °F (71 °C).
- Fish should be opaque and flake easily with a fork.
- Reheat leftovers to 165 °F (74 °C). Bring sauces, soups, and gravy to a boil when reheating.

Distribute **Handout 2** and discuss (**Handout 2: Cold Storage Chart**)

Distribute **Handout 3** and discuss (**Handout 3: Safe Internal Temp Chart**)

Step 4 – Chill (Refrigerate Promptly)

- Your refrigerator should register 40 °F (4 °C) or below and the freezer 0 °F (-18 °C). Place a refrigerator thermometer in the refrigerator and check the temperature periodically. A second thermometer should go in the freezer.
- Store perishable foods that are precooked or ready-to-eat in your refrigerator at 40 °F (4 °C) or below and eat them as soon as possible. Don't keep them in the refrigerator too long.
- Refrigerate or freeze perishables, prepared food, and leftovers within two hours of eating or preparation or after one hour in temperatures over 90 °F.

Activity 2: Workstation Demonstrations: Clean, Separate, Cook, and Chill

(Each workstation consists of hands-on activities, role playing, and proper food safety techniques that will include the following: hand-washing, handling of raw foods, and proper food storage).