Food Safety Is Important

- How food becomes unsafe
- Your role in keeping food safe
- Understanding food allergies
- Preventing food allergen contamination

Unsafe Temperatures

An independent trucking company was forced to discard several thousand pounds of food products being transported in one of its delivery trucks. A random check by officials found that meat and other perishables on the truck were being held at unsafe temperatures. The food was discarded because officials feared it could cause a foodborne illness.
HOW FOOD BECOMES UNSAFE

People who receive food from a food bank or agency trust you to help keep them safe. One big concern is foodborne illness. A foodborne illness is a disease that is transmitted to people through food.

Many hazards can make food unsafe and cause a foodborne illness. Some come from the air, water, soil, and animals. Some come from dirty surfaces. Others happen when people don’t handle food correctly. Foodborne illness is almost always preventable. You just need to know how to handle food safely.

Hazards from the Environment
Three types of hazards make food unsafe. They are: biological hazards, physical hazards, and chemical hazards.

Biological hazards
These are tiny forms of life that you can’t see, taste, or smell. They include:
- Bacteria
- Viruses
- Parasites
- Fungi

These forms of life are everywhere. Sometimes they are harmless. But some cause illness. They are called pathogens.

Physical hazards
Some physical hazards occur naturally in food, such as bones in fillets and fruit pits. Usually physical hazards occur when objects fall into food. Some examples include:
- Jewelry
- Glass
- Brittle plastics
- Ceramics
- Bandages

Chemical hazards
Chemicals in your food bank or agency can contaminate food. These include:
- Cleaners
- Sanitizers
- Pesticides
How People Make Food Unsafe

Sometimes the things people do can make food unsafe. Once you understand what the dangers are, it is easy to avoid them. These four practices can make food unsafe.

**Poor personal hygiene**
Transferring pathogens from your body to food.
This is the number one cause of foodborne-illness outbreaks.

**Cross-contamination**
Transferring pathogens from one surface or food to another.

**Time-temperature abuse**
Letting food stay too long at temperatures that are good for pathogen growth.

**Poor cleaning and sanitizing**
Transferring pathogens from incorrectly cleaned surfaces to food.

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**Apply Your Knowledge**

What Do You Think?

Write an X next to the problem for each action listed below.

1. Leaving raw chicken breasts on a pallet in a loading area that is not refrigerated
   - A  Time-temperature abuse
   - B  Poor personal hygiene
   - C  Cross-contamination
   - D  Poor cleaning and sanitizing

2. Sneezing on food
   - A  Time-temperature abuse
   - B  Poor personal hygiene
   - C  Cross-contamination
   - D  Poor cleaning and sanitizing

3. Keeping produce that raw meat juices have leaked on
   - A  Time-temperature abuse
   - B  Poor personal hygiene
   - C  Cross-contamination
   - D  Poor cleaning and sanitizing

4. Scraping off food from an otherwise clean food-storage container
   - A  Time-temperature abuse
   - B  Poor personal hygiene
   - C  Cross-contamination
   - D  Poor cleaning and sanitizing

For answers, please turn to the answer key on the last page.
You play an important role in keeping food safe. Knowing the hazards to food safety is just the start. The next step is to make sure you work safely.
It is easy but critical that you follow these practices.

**Practice good personal hygiene**
- **DON'T** transfer pathogens from your body to food.
- You'll learn more about this in Chapter 2.

**Control the time and temperature of food**
- **DON'T** let food stay too long at temperatures that are good for pathogen growth.
- You'll learn more about this in Chapter 3.

**Prevent cross-contamination**
- **DON'T** transfer pathogens from one food to another.
- **DON'T** transfer pathogens from one surface to another.
- You'll learn more about this in Chapters 3 and 4.

**Clean and sanitize surfaces correctly**
- Keep everything clean.
- Clean and sanitize anything that touches food.
- You'll learn more about this in Chapter 5.
Some people are allergic to certain types of food. The tiniest speck of a food they are allergic to can make them sick or even cause death. You must keep this food away from these people.

When a food item containing an allergen comes in contact with another food item and their proteins mix, it is called cross-contact. This can be dangerous for people with food allergies. Food should be stored and handled in a way that prevents cross-contact.

### The Most Common Food Allergens

The proteins that cause allergic reactions are called allergens. Many different food items can cause allergic reactions. But just eight food items cause most reactions. These are called the Big Eight.

You need to be aware of the Big Eight and the products that contain them. Here are the Big Eight allergens.

<table>
<thead>
<tr>
<th>Milk</th>
<th>Eggs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soy</td>
<td>Fish, such as bass, flounder, and cod</td>
</tr>
<tr>
<td>Tree nuts, such as almonds, walnuts, and pecans</td>
<td>Peanuts</td>
</tr>
<tr>
<td>Crustacean shellfish, such as crab, lobster, and shrimp</td>
<td>Wheat</td>
</tr>
</tbody>
</table>
Preventing Food Allergen Contamination

Labeling is the most important way to help keep people with food allergies safe. You will learn more about correct labeling in Chapter 3. The following practices can also prevent food-allergen contamination.

Prevent Cross-Contact
You must make sure that food containing allergens does not come in contact with other food.

- Clean and sanitize all surfaces that have come in contact with food containing an allergen.
- Inspect food packaging to ensure no leaks or spills have occurred that can cause cross-contact.
- When possible, store food with allergens separately from allergen-free products. **DO NOT** store food containing allergens above allergen-free food. Use dedicated pallets and bins for products containing allergens.
- Wash your hands and change gloves after handling a food containing allergens and before handling an allergen-free food.

Apply Your Knowledge

The Most Common Food Allergens

Write an **X** next to each food that is a common food allergen or contains one.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tea</td>
<td>7</td>
<td>Potatoes</td>
</tr>
<tr>
<td>2</td>
<td>Cod</td>
<td>8</td>
<td>Mushrooms</td>
</tr>
<tr>
<td>3</td>
<td>Wheat flour</td>
<td>9</td>
<td>Tomatoes</td>
</tr>
<tr>
<td>4</td>
<td>Melons</td>
<td>10</td>
<td>Pecan pie</td>
</tr>
<tr>
<td>5</td>
<td>Peanut butter</td>
<td>11</td>
<td>Citrus fruit</td>
</tr>
<tr>
<td>6</td>
<td>Crab legs</td>
<td>12</td>
<td>Green peppers</td>
</tr>
<tr>
<td>13</td>
<td>Squash and eggplant</td>
<td>14</td>
<td>Soybeans</td>
</tr>
<tr>
<td>15</td>
<td>Rice and rice products</td>
<td>16</td>
<td>Omelet</td>
</tr>
<tr>
<td>17</td>
<td>Vanilla ice cream</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For answers, please turn to the answer key on the last page.

Cleaning Up Food Spills

Spills can easily lead to cross-contact. Follow these steps to prevent this.

- Immediately isolate any spilled food containing an allergen from other food products.
- Inspect surrounding products to make sure they have not come in contact with the spilled food.
- Dispose of any open products that have come in contact with the spilled food. If the food is in packaging that can be safely cleaned and sanitized, it may not need to be discarded.
- Clean and sanitize the area.
Good Personal Hygiene

- How and when to wash your hands
- Where to wash your hands
- Other hand-care guidelines
- What to wear
- Other important practices

Hepatitis A Scare

Hepatitis A vaccinations were offered to thousands of clients who visited a food pantry on the Gulf Coast of the United States. The vaccinations were offered by the local regulatory authority after a staff member at the operation tested positive for hepatitis A, exposing clients to the virus.

The identified staff member was responsible for packaging produce. He was excluded from work until approved to return by a physician and the regulatory authority.

The local regulatory authority also worked with the pantry’s director and supervisors to ensure they had all of the correct processes in place to protect clients and staff. Ensuring that staff members reported illness to managers was at the top of the list.
HOW AND WHEN TO WASH YOUR HANDS

Handwashing is the most important part of personal hygiene. It is important because your hands can transfer pathogens to food. So it is critical that you wash your hands correctly and at the correct times.

How to Wash Your Hands
Correct handwashing only takes about 20 seconds. Follow these steps.

1. Wet hands and arms.
   Use running water as hot as you can comfortably stand.

2. Apply soap.
   Apply enough to build up a good lather.

3. Scrub hands and arms vigorously.
   Scrub them for 10 to 15 seconds. Clean under fingernails and between fingers.

4. Rinse hands and arms thoroughly.
   Use running warm water.

5. Dry hands and arms.
   DO NOT use your apron or any part of your clothing.
   Use a single-use paper towel or hand dryer.
After Washing Your Hands
Once your hands are clean, you don’t want to contaminate them again. Follow these guidelines.

- Use a paper towel to turn off the faucet.

- Use a paper towel to open the restroom door.

When to Wash Your Hands
It is easy to contaminate your hands while doing everyday activities. And contaminated hands can spread pathogens.

To keep food safe, wash your hands before you start work and after any of these activities.

- Using the restroom.

Failure to do this has caused many foodborne illnesses

- Touching your hair, face, or body.

- Handling raw meat, poultry, or seafood (before and after).

- Touching clothing or aprons.
- Taking out garbage.
- Handling chemicals that can make food unsafe.
- Chewing gum or tobacco.
- Before putting on gloves at the start of a new task.
- Leaving and returning to the food-handling area.

- Sneezing, coughing, or using a tissue.
- Smoking.
- Eating or drinking.
- Touching anything else that may contaminate your hands. Examples include dirty equipment, work surfaces, and cloths.
Using Hand Antiseptics

Some food banks or agencies may provide hand antiseptics, commonly called hand sanitizers, to reduce pathogens on hands. Follow these steps if you use hand antiseptics.

- NEVER use a hand antiseptic instead of washing your hands.
- Use an antiseptic after you wash your hands.
- Wait for the antiseptic to dry before touching food or equipment, and before putting on gloves.
- Follow the manufacturer’s directions for using a hand antiseptic.

Apply Your Knowledge

Check Your Handwashing Knowledge

1. Ryan washed his hands before handling food. Write an X next to each error that Ryan made.

   ______ A He applied hand sanitizer before washing his hands
   ______ B He wet his hands using very hot water
   ______ C He applied enough soap to develop a good lather
   ______ D He scrubbed his hands with soap for five seconds
   ______ E He rinsed his hands under running warm water
   ______ F He dried his hands with his clean apron
   ______ G He turned off the faucet with a paper towel
   ______ H He opened the door with his clean hands

2. Write an X next to each situation where you must wash your hands.

   ______ A After handling packages of raw chicken
   ______ B Before putting on gloves at the start of a task
   ______ C Before handling chemicals
   ______ D After taking out garbage

3. Write an X next to the situation where you should use a hand antiseptic.

   ______ A When you can’t wash your hands
   ______ B Before washing your hands
   ______ C After washing your hands
   ______ D When you can’t dry your hands

For answers, please turn to the answer key on the last page.
WHERE TO WASH YOUR HANDS

Your food bank or agency should have specific sinks for handwashing. You must use these sinks correctly to make handwashing effective.

Use a Handwashing Sink

Wash your hands only in a designated handwashing sink.

DO NOT use handwashing sinks for other things.
- NEVER dump dirty water in them.
- NEVER prep food in them.
- NEVER wash tools or equipment in them.

Make sure handwashing sinks are easy to get to and are not blocked.
- NEVER stack food, equipment, or supplies in them or in front of them.

Stocking the Handwashing Sink

A stocked sink should have:
- Hot and cold running water
- Liquid soap
- Single-use paper towels or a hand dryer
- Garbage container

If these items aren't stocked, tell your director or supervisor.
**Other Hand-Care Guidelines**

It takes more than just clean hands to maintain good personal hygiene. You also must use gloves correctly and care for your hands and nails.

**Use Gloves Correctly**

Gloves can help prevent the spread of pathogens. Here is the correct way to use them.

**Use the correct gloves**

- Only use single-use gloves when handling food.
- Make sure the gloves fit your hands. They should not be too tight or too loose.
- Never blow into a glove, or roll them to make them easier to put on.
- NEVER rinse, wash, or reuse gloves.
- Wash your hands before putting on gloves when starting a new task.

**Change gloves when necessary**

- As soon as they become dirty or torn.
- Before beginning a different task.
- Before or after handling any food with a known food allergen.
- After handling raw meat, seafood, or poultry and before handling ready-to-eat food.
- After an interruption, such as taking a phone call.
Hands and Nails
Follow these guidelines to maintain your hands and nails.

- Keep fingernails short and clean. Long fingernails can be hard to keep clean.
- If you will be handling exposed food, you must use single-use gloves if you are wearing:
  - Nail polish
  - False fingernails
- Nail polish can hide dirt under nails and may flake off into exposed food.

Infected wounds can contain bacteria. To keep food safe, make sure wounds are correctly covered.
- **Hands or wrist**: Cover with a bandage or finger cot that prevents fluid from leaking out. Then place a single-use glove over the cover.
- **Arms**: Completely cover with a bandage that prevents fluids from leaking out.
- **Body**: Cover with a dry, durable, tight-fitting bandage.

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**Apply Your Knowledge**

**Keeping It Safe**

1. Alicia is a volunteer repackaging bulk cereal. Write an X beside everything that Alicia has done wrong.

   - A. Washed her hands before putting on gloves
   - B. Rinsed her gloves when they became too dirty from working with the cereal
   - C. Began repackaging rice after repackaging cereal without changing gloves
   - D. Washed her hands and changed gloves when she noticed a small tear in a glove she was wearing

2. Write an X next to each unsafe practice.

   - A. Washing hands and putting on new gloves after handling an allergen
   - B. Putting the same gloves back on after finishing one task and starting a new task
   - C. Prepping food wearing fake nails without gloves
   - D. Working with an infected, unbandaged cut

For answers, please turn to the answer key on the last page.
If you fail to bathe or you wear dirty clothes while working with food, you can make people sick. Dirty hair, skin, and clothing may carry pathogens that can cause foodborne illness. Hygiene matters, so bathe daily. And follow the guidelines below.

**Hair covering**
Always wear a clean hat or other hair covering when:
- Repackaging food
- Working in a clean room
- Working in areas used to clean utensils and equipment

Men with beards and mustaches should also wear a beard restraint.

**Clothing and aprons**
- Wear clean clothes whenever working with or around food.
- Remove and throw away disposable aprons when leaving clean rooms or food-handling areas.
- Store personal belongings away from food.

**Jewelry**
Jewelry can contain bacteria and other pathogens. It can also fall off into food. Remove jewelry from hands and arms before handling exposed food or when working in or around food-handling areas. **DO NOT** wear:
- Rings, except for a plain band
- Bracelets, including medical bracelets
- Watches

Your director or supervisor may also ask you to remove other jewelry.

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**Apply Your Knowledge**

**It's What You Wear**

1. Write an X next to each unsafe practice.

   - _____ 1 Wearing a dirty shirt
   - _____ 2 Wearing nail polish without wearing gloves
   - _____ 3 Wearing a baseball cap while packaging food
   - _____ 4 Wearing a watch
   - _____ 5 Removing a disposable apron and putting it back on after returning to the clean room
   - _____ 6 Wearing a bandage on your finger under your gloves
   - _____ 7 Cleaning and sanitizing food scoops without wearing a hat or other hair covering
   - _____ 8 Wearing the same pants several days in a row until they get dirty

For answers, please turn to the answer key on the last page.
OTHER IMPORTANT PRACTICES

Following correct hygiene practices helps keep you and everyone else safe. Follow the guidelines below.

Eating, Drinking, Smoking, and Chewing Gum or Tobacco
Saliva contains pathogens that can cause a foodborne illness. Eating, drinking, smoking, and chewing gum or tobacco can contaminate equipment and your hands with saliva. Cigarette butts and other items can also get into food.

- NEVER eat, drink, smoke, or chew gum or tobacco in food-handling and storage areas.
- Only do these things in designated areas.

What to Do if You Are Sick
If you are sick, you could spread pathogens to food and equipment. This could make your clients and your coworkers sick. Don't let this happen.

Tell your director or supervisor if you have been diagnosed with a foodborne illness. You must also tell your director or supervisor if you have any of these symptoms:
- Vomiting
- Diarrhea
- Jaundice (yellowing of skin and eyes)
- Sore throat with a fever

Apply Your Knowledge Reporting Illnesses

1. Write an X next to the symptoms you must report to your director or supervisor.

____ 1 Vomiting  ____ 4 Being very tired
____ 2 Jaundice  ____ 5 Diarrhea
____ 3 Sore throat with a fever  ____ 6 Headache

For answers, please turn to the answer key on the last page.
Receiving and Storing Food Safely

- Controlling time and temperature during receiving
- Inspecting food during receiving to make sure it is safe
- Storing food safely

Salmonella Outbreak Threatens Food Banks

Food banks across the U.S. were forced to destroy thousands of pounds of food products containing peanuts. The culprit—a deadly strain of Salmonella, which killed nine people and sickened more than 700 people nationwide. No known cases of illness were attributed to the food distributed by food banks, thus pointing to the importance of following recall notices.
CONTROLLING TIME AND TEMPERATURE DURING RECEIVING

The temperature of food must be controlled from the minute it’s picked up from the donor or food bank to the minute it’s handed to the client.

- That includes the time food spends in the warehouse, on the truck, and at the agency.
- Think of this as a “cold chain” that, if broken, can result in foodborne illness.
- The cold chain is broken whenever food is held at temperatures between 41°F and 135°F (5°C and 57°C). This is the temperature danger zone.
- Fortunately, there are several ways to control temperature and prevent a “break” in the cold chain.

Types of Thermometers

A thermometer is the most important tool for controlling the temperature of food. Three types of thermometers are commonly used in food banks and agencies.

**Infrared thermometers**

- Only measure surface temperatures of food and equipment
- Display temperatures instantly
- Prevent cross-contamination and damage to food because they do not touch it

**Thermocouples and other digital thermometers**

- Do not need to be inserted deep into food to get an accurate reading
- Display temperatures quickly
- Many come with other probes for checking liquids, air temperature, and equipment

**Bimetallic stemmed thermometers**

- Must be inserted in food from the tip of the thermometer stem to the dimple to get an accurate reading
- Require at least 15 seconds before a final reading can be taken
- Can be easily calibrated at the food bank or agency
The Correct Way to Calibrate a Thermometer

Thermometers must be calibrated (adjusted) regularly to make sure the readings are correct.

- Digital thermometers may need to be sent back to the manufacturer to be calibrated. If not, follow the directions from the manufacturer to calibrate them.
- Infrared thermometers will need to be sent back to the manufacturer to be calibrated.

Follow these steps to calibrate a bimetallic stemmed thermometer.

1. Fill a large container with crushed ice and tap water.
   - Stir the mixture well.

2. Put the thermometer stem or probe into the ice water.
   - Make sure the sensing area is under water.
   - **DO NOT** let the probe touch the container.
   - Wait 30 seconds or until the indicator stops.

3. Adjust the thermometer so it reads 32°F (0°C).
   - Hold the calibration nut with a wrench or other tool.
   - Rotate the thermometer head until it reads 32°F (0°C).

Apply Your Knowledge  Ice-Point Calibration Method

Write an X next to the correct answer.

1. How long should you wait to read a bimetallic stemmed thermometer after placing it in the ice water?
   - A 5 seconds
   - B 7 seconds
   - C 10 seconds
   - D 30 seconds

2. What temperature should a thermometer be adjusted to after placing it in the ice water?
   - A 0°F (-18°C)
   - B 10°F (-12°C)
   - C 22°F (-6°C)
   - D 32°F (0°C)

For answers, please turn to the answer key on the last page.
INSPECTING FOOD DURING RECEIVING TO MAKE SURE IT IS SAFE

Checking food when you receive it will help make sure it is safe. This starts with inspecting delivery trucks for the correct temperature and signs of contamination. It continues with checking the temperature and quality of food and looking for signs of contamination.

Inspecting the Delivery Vehicle

It is very important that you inspect the delivery vehicle before unloading it. Any problems should be documented. Here’s what you should look for.

- Overall condition of the vehicle
- Signs of pests in the product or vehicle
- Condition of the product
- Presence of objectionable product (e.g., homemade product)
- Door locks and seals that are in place and functioning
- Correct truck temperature
- Check the temperature recording device or use an infrared thermometer

Reject the food delivery if the delivery vehicle or delivery containers:
- Do not meet acceptable standards
- Contain pests
- Are excessively dirty
Checking the Temperature of Food

Perishable food must be received at the correct temperature in order for it to be safe. Reject any food that does not meet these temperatures.

<table>
<thead>
<tr>
<th>Type of food</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerated food</td>
<td>41°F (5°C) or lower.</td>
</tr>
<tr>
<td>Frozen food</td>
<td>Frozen solid. Recommend 0°F (-18°C) or lower.</td>
</tr>
<tr>
<td>Cut produce</td>
<td>41°F (5°C) or lower.</td>
</tr>
<tr>
<td>Whole produce</td>
<td>Dry storage temperatures. For more information see Feeding America’s produce handling guidelines.</td>
</tr>
</tbody>
</table>

Apply Your Knowledge

Is the Delivery Safe?

1. Write an \( \times \) next to each unsafe situation.

   - A The door lock on a food delivery truck is broken.
   - B Mice are spotted inside a food delivery truck.
   - C A delivery truck is transporting food at 38°F (3°C).
   - D A case of home-canned jelly is found inside a delivery truck.

Apply Your Knowledge

Is It the Correct Temperature?

1. Write an \( \times \) next to each item that was not received at the correct temperature.

   - A Frozen meat received at 38°F (3°C)
   - B Bags of cut lettuce received at 50°F (10°C)
   - C Bags of cut melons received at 45°F (7°C)
   - D Milk received at 50°F (10°C)

For answers, please turn to the answer key on the last page.
**Storing Food Safely**

Food can easily be contaminated if it is not stored correctly. It can also become unsafe if it is allowed to stay in the temperature danger zone. The good news is that there are things you can do to prevent this.

**General Storage Guidelines**

Here are some important steps you must take to keep food safe when storing it.

- **Store refrigerated food at 41°F (5°C) or lower.**
  
  This includes cut produce.

- **Store food only in designated food-storage areas.**

- **Store ready-to-eat food above raw meat, seafood, and poultry.**
  
  Do not store these items on the same shelf or pallet.

- **Keep frozen food frozen solid.**
  
  The recommended temperature is 0°F (-18°C) or lower.

- **Store food at least six inches (15 cm) off the floor.**
  
  Store food away from walls.

- **Store food only in containers made for food.**

- **Wrap or cover food before storing it.**
**Apply Your Knowledge**

Is It Stored Correctly?

1. Draw an X through each food item that has not been stored correctly.

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**Labeling Food for Storage**

All food given to clients must contain a label that includes specific information about the product. See Feeding America labeling guidelines for more information. While not required by law, food should also be labeled with the receiving date. This will ensure that products can be correctly rotated.

**Put the receiving date on food and products.**

- Dates should be placed in these locations:
  - On the individual container or case
  - On pallet tags
- Make sure the dates are listed on a permanent part of the packaging.

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**Understanding Food Product Dating**

It can be difficult to understand the dates listed on a food label. Here is an explanation of common labeling terms.

**Packing or manufacturing date**

- Used by manufacturers for tracking and recalls.
- Not an expiration date.

**Sell-by date**

- This is a quality date.
- It tells the store how long to display the product for sale.
- The product is still safe to eat past this date.
Best-by or best if used by date
• This is a quality date.
• It tells clients the date by which the product should be eaten for
  best flavor or quality.
• The product is still safe to eat past this date.

Use-by or expiration date
• This is the last date recommended for the product while at
  peak quality.
• The product is still safe to eat past this date.

Determining the Shelf-Life for Refrigerated Food in Storage
Most storage dates on food are not related to food safety. So it can be difficult to decide how
long food can be safely stored. Here are some general guidelines to follow.

• If the food has a sell-by date or no date at all, you should freeze or
distribute the food following Feeding America guidelines.
• Freezing food will keep it safe for long periods of time. But quality
  will suffer if frozen food is stored too long. Follow Feeding America
  guidelines for recommended storage times.

Handling Recalled Food
Sometimes manufacturers or government agencies will issue recalls for food. This may
happen when food has been contaminated. It can also happen when food allergens have not
been identified on the label.

• Talk to your director or supervisor for how to handle recalls in your
  food bank or agency.
• Feeding America issues recall notices for all FDA and USDA issued
  recalls.
Rotating Food in Storage
You must make sure that the oldest food in storage is used first. This will reduce food waste and keep food safe. Food rotation should be based on either the expiration date or the delivery date of the food.

Follow the first-expired, first-out (FEFO) method of rotation if the food has a use-by or expiration date.

1. Check the use-by or expiration date.
2. Store food that will expire first in front of items that will expire later.
3. Use the food stored in front first.

Follow the first-in, first-out (FIFO) method of rotation if the food does not have a use-by or expiration date.

1. Check the delivery date.
2. Store food with the earliest delivery date in front of food with later dates.
3. Use the food stored in front first.
Evaluating, Repacking, and Transporting Food Safely

- Evaluating the condition of food
- Repackaging food
- Loading and distributing food safely

Botulism Scare

Workers at a large food bank on the west coast were recently faced with sorting through thousands of pounds of donated canned goods. They were trying to keep food containing deadly bacteria from reaching the hungry. The effort came after five people in three states came down with botulism after eating some of the product. A national recall was issued for over 90 products including 27 brands of canned chili, stew, hash, and gravy. Fortunately the food bank was able to pull more than 300 cans before they were distributed to those in need.
EVALUATING THE CONDITION OF FOOD

Not all of the products you receive will be ready for distribution. Many products will require a closer look to see if they are usable. Each product will be evaluated differently. Never assume that the product has already been inspected and is safe for use. It is everyone’s responsibility to inspect food for safety.

Checking Cans for Defects

Canned food that is damaged or defective can cause a foodborne illness. Here are some common can defects. Discard cans if they have these problems.

- Severe dent in can seams
- Missing labels
- Unreadable labels due to stains or tears
- Holes
- Visible signs of leaking (indicated by stained labels)

- Deep dents in can body
- Crushed cans that are not stackable
- Swollen or bulging ends
- Rust that cannot be wiped off
Checking Jars and Bottles for Defects
Food in jars and bottles must be checked just as carefully as canned food. Here are some common defects. Discard jars and bottles of food if they have these problems. Never accept homemade food.

<table>
<thead>
<tr>
<th>Lid is swollen, rusted, or dented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lid is loose</td>
</tr>
<tr>
<td>Button in lid is raised (indicates seal is broken)</td>
</tr>
<tr>
<td>Missing seal (do not discard if inner seal is intact and not discolored)</td>
</tr>
<tr>
<td>Missing label</td>
</tr>
<tr>
<td>Unreadable label</td>
</tr>
<tr>
<td>No code dates</td>
</tr>
<tr>
<td>Signs of leakage</td>
</tr>
<tr>
<td>Jar is chipped or broken</td>
</tr>
<tr>
<td>Food contains mold or foreign objects</td>
</tr>
<tr>
<td>Signs of dirt or mold under lid</td>
</tr>
<tr>
<td>Food is discolored</td>
</tr>
<tr>
<td>Food has unusual appearance or separation</td>
</tr>
</tbody>
</table>

Checking Commercially Packaged Dry Food for Defects
Commercially packaged dry food must be checked just as carefully as other food.

- Dry food containers include bags, boxes, sacks, or plastic-wrapped items.
- Some dry food is packaged in a single package. Other food is double-packaged with the food contained in an inner package.
- Food packaged this way includes flour, cereals, pasta, bread, and rice.
Discard commercially packaged dry food if it has an unusual appearance, is not in its original package, or has these problems.

- Unlabeled or not correctly labeled
- Label is unreadable
- No code dates
- Signs of pests
  - Gnaw marks
  - Droppings
  - Insects (dead or alive)
  - Pin-sized holes in packaging
- Double-packaged food with inner package that is damaged, wet, and/or stained
- Single-packaged food that is exposed due to packaging that is open, ripped or torn, punctured or cut, and/or split at seams

Apply Your Knowledge  Keep It or Toss It?

1. Draw an X through each food item that should be rejected.
Checking Produce for Defects

There are many ways that produce will show signs of spoilage. You should be able to recognize the obvious signs as well as those that indicate the produce will spoil quickly. Discard produce if it has these problems.

- Mold.
- Decay or rot.
- Bad odors.

- Severe bruises.
- Skin not intact.
  Bruises provide a way for pathogens to get inside produce.

- Signs of insects (live insects, insect bodies, or insect eggs).

- Produce repacked in packaging not safe for use with food.

- Cut produce not at 41°F (5°C) or lower.
- No code dates.

Apply Your Knowledge Should You Keep It?

1. Draw an X through each food item that should be rejected.
Checking Over-the-Counter (OTC) Medications for Defects

Check with your director or supervisor to see if OTC medications can be received in your food bank or agency. Never accept products containing ephedrine or pseudoephedrine. Here's what to look for when evaluating OTC medications.

**Product packaging**
Reject medications with these problems:
- Broken tamper-resistant seals.
- Damaged packaging.

**Expiration and use-by dates.**
Reject medications with these problems:
- Expired.
- Past the use-by date.

**Product labels**
Reject medications with these problems:
- Label is not intact or readable.
- Label does not include necessary information, including common name of drug, list of ingredients, quantity of contents, instructions for correct use, recommended dose, and storage requirements, if any.

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**Apply Your Knowledge**
**Is It Acceptable?**

1. Draw an X through each item that should be rejected.

1.

2.

3.
REPACKING FOOD

Many times food is received in bulk and must be repacked in quantities that are the right size for clients. There are strict conditions for repacking food. In general, it must be performed in a designated clean room. A clean room is a separate enclosed room dedicated to bulk repacking.

- It must be designed to the highest standards of sanitation.
- It must prevent as many environmental contaminants as possible.
- Interior surfaces must be durable and easy to clean.
- It must be built to commercial foodservice construction standards.
- It must meet local health regulations.

TCS food should only be repacked in a clean room that can maintain a temperature of 55°F (13°C) or lower.

Guidelines for Repacking Food

Follow these guidelines when repacking exposed food, especially food that is ready-to-eat.

- Practice correct personal hygiene before handling food.
  (See Chapter 2)
- Clean and sanitize the room before repacking food.
- Only repack one type of product at a time.
- Store clean and sanitized equipment so it doesn't become contaminated.
- Only handle food with equipment made for food.
- Clean and sanitize equipment used to repack food.
  - Before and after use
  - When changing to a new product or between allergens
Labeling Repacked Food
All repackaged food must contain a label that includes specific information about the product.

Oat Bran Cereal
Anderson Cereals Co. Ludington,
Michigan 49431 USA
1 lb.

Ingredients: Whole grain oats, sugar, wheat bran, vegetable oil, oat bran, corn syrup, wheat starch, coconut, contains 2% or less of molasses, malt flavor, salt, baking soda, natural and artificial flavor

CONTAINS WHEAT, COCONUT, AND SOY

Name of the food (common or usual name)
Name and address of the manufacturer, packer, or distributor
Quantity of food in the package expressed in common units of measure (e.g., pounds, ounces)
List of ingredients and sub-ingredients in descending order by weight
List of each major food allergen contained in the food

Apply Your Knowledge
What Did They Do Wrong?

1. Write an × next to each situation where a mistake was made.

For answers, please turn to the answer key on the last page.
LOADING AND DISTRIBUTING FOOD SAFELY

Food can become unsafe if it's not loaded or distributed correctly. Start by making sure the delivery vehicle is ready for handling food. You also need to be careful when getting food ready for a delivery and when loading the delivery vehicle.

Preparing Delivery Vehicles before Transporting Food

Delivery vehicles must be inspected and maintained to protect food from contamination. That's true whether they are private vehicles or commercial trucks. Here's what you should do to keep food safe.

- Clean the inside of vehicles at least once per week or as often as necessary.
- Make sure vehicles are free of pests, such as insects or rodents.
- Never deliver food in a vehicle used to haul garbage.
- Do not bring pets when delivering food.
- Keep items that could contaminate food separate from the delivery. This could include oil, antifreeze, or wiper fluid.
- Lock and seal delivery vehicles when they are not being loaded or unloaded.

It is critical that food remain at safe temperatures during transport. If not, bacteria on the food can grow and cause an illness. Here's what you should do to prevent this.

- Check the temperature of refrigerated trucks to make sure they can keep food at 41°F (5°C) or lower.
  - Check the readout on the truck's temperature recording and monitoring device. Document the reading.
  - It is recommended that refrigeration units remain on and vehicle doors remain closed during periods of inactivity.
  - Refrigerated trucks must be pre-cooled prior to loading.
- Make sure coolers, ice packs, and thermal blankets are used in unrefrigerated vehicles to keep cold food cold.
Preparing Food for Transport

When getting food ready for delivery, follow these guidelines to keep it safe.

**DO NOT** leave food outside and unsupervised.

Use boxes that are sturdy, clean, and dry.

Keep shelf-stable food in a clean, dry storage area.

Keep meat, poultry, and seafood separate from each other and away from other food.

**DO NOT** put food by garbage containers.

**DO NOT** leave refrigerated or frozen food at room temperature.

Keep food in a pest-free area.

Keep chemicals separate from food.
Loading and Transporting Food Safely

Food must be loaded into the delivery vehicle correctly to prevent contamination. Once loaded, food must stay at the correct temperature to keep it safe. Follow these guidelines when loading and transporting food.

- Keep refrigerated food at 41°F (5°C) or lower during transport.
- If possible, keep frozen food at temperatures that will keep it frozen.
- Keep food cold in unrefrigerated vehicles.
  - Always cover refrigerated and frozen food with thermal blankets.
  - Or place it in coolers with ice packs.
- DO NOT store raw food over ready-to-eat food.
  - Raw food includes raw meat, seafood, poultry, and shell eggs.
- DO NOT store chemicals with food products.
- Keep drive times in unrefrigerated vehicles to 30 minutes or less.
- Load refrigerated and frozen food so air can circulate around it.
  - Use pallet slip sheets.
- Check the temperature of refrigerated food when it has reached its destination.
  - Document the temperatures.

Apply Your Knowledge

Was it Loaded Safely?

1. Write an X next to each situation where a mistake was made.

For answers, please turn to the answer key on the last page.
Cleaning and Sanitizing

- How and when to clean and sanitize
- How to manually clean and sanitize tools and utensils
- Handling garbage
- Spotting pests

Pest Troubles
An agency was closed by the local health department after officials found significant evidence of rodents in the operation. Droppings were spotted in food-storage areas and nests were found near walls. Many food products were also damaged by the rodents. Aside from the damage, officials feared that pathogens carried by the pests would make clients sick. The health department worked closely with the agency to implement pest prevention measures including correct cleaning and sanitizing procedures.
Cleaning removes food and other dirt from a surface. Sanitizing reduces pathogens on a surface to safe levels. The most important reason to clean and sanitize is to prevent the spread of pathogens to food. It also helps control pests such as insects and rodents.

**Surfaces to Clean and Sanitize**

Not all surfaces are handled the same way. Some only need to be cleaned. Others must be cleaned and sanitized.

- All surfaces must be cleaned and rinsed. Examples include:
  - Walls and floors
  - Storage shelves
  - Garbage containers

- Any surface that touches food must be cleaned and sanitized. Examples include:
  - Plastic food bins
  - Ladies
  - Scales
  - Prep tables in clean rooms
  - Sorting tables
  - Scoops

- If you notice worn or cracked equipment, set it aside and report it to your manager. This equipment is not easy to clean or sanitize. It also may hold pathogens.
How to Clean and Sanitize Surfaces
The procedure below shows you how to clean and sanitize. Be sure to avoid contamination when cleaning. For example, do not allow spray cleaner to contaminate food. Always use cleaners and sanitizers according to manufacturers’ directions and your organization’s policies.

1. Scrape or remove food from the surface.

2. Wash the surface.

3. Rinse the surface.

4. Sanitize the surface.

5. Allow the surface to air-dry.
Cleaning and Sanitizing Stationary Equipment

Cleaning stationary equipment is similar to cleaning other surfaces. Talk to your director or supervisor about how to clean specific equipment you might use. Follow these steps when cleaning and sanitizing stationary equipment.

- Unplug the equipment.
- Take off the parts that can be removed. Wash, rinse, and sanitize them by hand.

- Scrape or remove food from the equipment surfaces.
- Wash, rinse, and sanitize the equipment surfaces.
- Let the surfaces air-dry. Then put the equipment back together.

When To Clean and Sanitize

All food-contact surfaces need to be cleaned and sanitized at these times.

- Before and after use
- Before repacking food
- When changing to a new product or between allergens
- After four hours if the items have been in constant use
- Any time the item has become contaminated
How to Make Sure Sanitizers Are Effective
You must make sure the sanitizer you use is effective. Ask your director or supervisor how to do these steps.

- Make sure the water is the correct temperature for the sanitizer you are using.
- Make sure you have used the correct amount of sanitizer.
- Use a test kit to check the sanitizer's strength.
- Make sure you leave the items being sanitized in contact with the sanitizer for the correct amount of time. This will reduce pathogens to safe levels.
- When wiping or spraying sanitizer on surfaces such as prep tables or sorting tables, allow the sanitizer to air-dry on the surface.

Apply Your Knowledge

Cleaning and Sanitizing

1. Circle the item that needs to be both cleaned and sanitized.
2. Put the steps for cleaning and sanitizing in the correct order by placing the number of each step in the space provided.

   ______ A  Sanitize the surface.
   ______ B  Wash the surface.
   ______ C  Allow the surface to air-dry.
   ______ D  Rinse the surface.
   ______ E  Scraper or remove food from the surface.

3. Write an X next to each situation that requires the food handler to clean and sanitize the item being used.

   ______ A  Jorge has used the same scoop to portion cereal for an hour.
   ______ B  Bob drops the scoop on the floor while using it.
   ______ C  Shelly has finished repacking produce on a prep table and now will use it to repack cereal.
   ______ D  Maria is about to start scooping bulk rice into smaller bags.

4. When cleaning and sanitizing stationary equipment, what is the next step after unplugging it?.

   ______ A  Taking off any removable parts and washing, rinsing, and sanitizing them
   ______ B  Scraping or removing food from the equipment surfaces
   ______ C  Washing, rinsing, and sanitizing the stationary equipment surfaces
   ______ D  Letting all surfaces air-dry

5. Write an X next to the actions that prevent a sanitizer from working well.

   ______ A  Making the sanitizer temperature too high
   ______ B  Putting extra sanitizer in the solution
   ______ C  Letting items make contact with the sanitizer solution
   ______ D  Testing the sanitizer strength with a test kit

For answers, please turn to the answer key on the last page.
Tools and utensils are usually cleaned and sanitized in a three-compartment sink. The sink must be set up the correct way before it can be used. Once set up, there are specific steps you must follow to make sure items are cleaned and sanitized correctly.

Setting Up a Three-Compartment Sink
Start by cleaning and sanitizing each sink and all work surfaces. Next set up each sink following these steps.

Sink 1
- Fill with water at least 110°F (43°C).
- Add detergent. Ask your director or supervisor how to do this.

Sink 2
- Fill with water. Leave the sink empty if you spray-rinse items.

Sink 3
- Fill with water.
- Add the correct amount of sanitizer. Ask your director or supervisor how to do this.
- Check the strength of the sanitizer with a test kit.

Using a Three-Compartment Sink
Follow these steps to clean and sanitize items in a three-compartment sink.

1. Rinse, scrape, or soak the items before washing them.
Wash the items in the first sink.
- Use a brush, cloth, or nylon scrub pad to loosen dirt.
- Change the water and detergent when the suds are gone or the water is dirty.

Rinse the items in the second sink.
- Dip them in the water or spray-rinse them.
- Remove any food or detergent.
- Change the water when it becomes dirty or full of suds.

Sanitize the items in the third sink.
- Soak them in the sanitizer solution for the correct length of time.
- **NEVER** rinse items after sanitizing them. This could contaminate the surfaces.

Air-dry the items.
- Place them upside down so they will drain.
- Do **NOT** wipe them dry.

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**Apply Your Knowledge**

### Washing Tools and Utensils

**1.** Write an X next to the first thing you should do when setting up a three-compartment sink.

- A  Fill the sinks with water.
- B  Mix the sanitizing solution.
- C  Mix the detergent solution.
- D  Clean and sanitize the sinks.

**2.** Put the steps for cleaning and sanitizing items in a three-compartment sink in order.

- A  Air-dry the items.
- B  Rinse the items.
- C  Sanitize the items.
- D  Rinse, scrape, or soak the items.
- E  Wash the items.

For answers, please turn to the answer key on the last page.
**Handling Garbage**

Garbage can contaminate food and equipment if it’s not handled safely. It can also create odors and attract pests. Here’s how you should handle it.

- Remove garbage as quickly as possible.
- Be careful not to contaminate food or surfaces when removing garbage.

- **DO NOT** clean garbage containers in clean rooms or food-storage areas.
- Clean the inside and outside of garbage containers often.

- Close the lids on outdoor containers.
- Keep indoor food waste containers covered.

**Apply Your Knowledge**

**That’s Just Garbage**

1. Draw an × through each situation that is unsafe.

For answers, please turn to the answer key on the last page.
Spots, such as insects and rodents, carry pathogens that can make people sick. Insect parts can even be a source of physical contamination. That’s why it is important to look for signs that pests are in the food bank or agency. Tell your director or supervisor if you spot these signs.

- Droppings

- Nests

- Damage to products, packaging, and the facility
What Do You Think?
1. Leaving raw chicken on a pallet in an unrefrigerated loading area is time-temperature abuse. This can allow pathogens on the chicken to grow.
2. It is poor personal hygiene to sneeze on food. This can transfer pathogens from the body to food.
3. Allowing raw meat to drip juices onto produce is cross-contamination. This can allow the transfer of pathogens on the meat to the produce.
4. The food-storage container was not cleaned and sanitized correctly. Pathogens could be transferred to food stored in the container.

The Most Common Food Allergens
2; 3; 5; 6; 10; 14; 16; 17

Check Your Handwashing Knowledge
1. Ryan applied hand sanitizer before washing his hands. This should only be done after handwashing.
2. Ryan only scrubbed his hands with soap for five seconds. He should have scrubbed his hands with soap for at least 10 to 15 seconds.
3. Ryan dried his hands with his apron. Hands should only be dried with single-use towels or a hand dryer.
4. Ryan opened the restroom door with his clean hands, possibly contaminating them again. He should have opened the restroom door using a paper towel.
5. A; B; C

Keeping It Safe
1. Alicia should not have rinsed her gloves. Food handlers must never rinse, wash, or reuse gloves.
2. Alicia should not have repacked rice after repacking cereal without changing her gloves. Gloves must always be changed in-between tasks.
3. B. It is unsafe to reuse the same pair of single-use gloves. Gloves must never be reused. They must also be changed in-between tasks.
4. Prepping food while wearing false fingernails is unsafe. Food handlers with nail polish or false fingernails must wear gloves when handling exposed food.

It's What You Wear
1. Wearing a dirty shirt is unsafe because pathogens on it could contaminate exposed food.
2. Wearing nail polish without wearing single-use gloves is unsafe. Nail polish can hide dirt under nails and may flake off into exposed food.
3. Wearing watches can be unsafe when handling exposed food or when working around it. Watches, like other jewelry on the hands and arms, can contain bacteria and other pathogens. These pathogens could get onto the exposed food.
4. Touching an apron when removing it can contaminate it. Disposable aprons must be thrown away when leaving the clean room. A new apron should be put on before returning to the clean room.
5. Cleaning and sanitizing utensils and equipment used to handle exposed food without wearing a hair covering can contaminate it. Always wear a clean hat or other hair covering when working in areas used to clean utensils and equipment.

Reporting Illnesses
1; 2; 3; 5

Ice-Point Calibration Method
1. D
2. D

Is the Delivery Safe?
1. A broken door lock on a delivery vehicle is unsafe. This can allow tampering with the delivery. Door locks must be in place and functioning on delivery vehicles.
2. Any sign of pests in a delivery vehicle is
unsafe. A food delivery should be rejected if delivery containers or the delivery vehicle contains pests.
D. Homemade products, such as the home-canned jelly, may be unsafe. You should not receive these products.

Is It the Correct Temperature?
1. The frozen meat was not received at the correct temperature. It will start to thaw at 38°F (3°C). Frozen meat must be received frozen solid.
B. The bags of cut lettuce where not received at the correct temperature. Cut produce must be received at 41°F (5°C) or lower.
C. Cut melons received at 45°F (7°C) may be unsafe. Cut produce must be received at 41°F (5°C) or lower.
D. Milk received at 50°F (10°C) may be unsafe. Refrigerated food, such as milk, should be received at 41°F (5°C) or lower unless otherwise specified by the manufacturer.

Is It Stored Correctly?
1. This food has not been stored correctly. Food must be stored away from walls.
B. The sour cream is not being stored at the correct temperature. Refrigerated food must be stored at 41°F (5°C) or lower.
D. This food is being stored on the floor, which is not correct. Food must be stored at least six inches (15 cm) off the floor.

Has it Been Rotated Correctly?
B

Keep It or Toss It?
1. This jar has a severe dent in the lid. It should be rejected.
2. This can has a deep dent in the can body. It should be rejected.
3. This jar has a missing label. It should be rejected.
5. This can has a bulging end. It should be rejected.
7. This jar is cracked. It should be rejected.
8. This canned food is homemade. It should be rejected.

Should You Keep It?
1. Some of these oranges are moldy. They should be rejected.
3. The skin on these tomatoes is not intact. They should be rejected.
4. This pasta is exposed. It should be rejected.

Is It Acceptable?
1. This medication has a broken tamper-resistant seal. It should be rejected.
2. This medication is expired. It should be rejected.
3. This medication has a label that is not readable. It should be rejected.

What Did They Do Wrong?
1. These scoops are not being stored correctly. They may become contaminated.
2. These people are repacking two different food products at the same time. This can be unsafe.
3. This person is repacking exposed food without wearing a hat or other hair covering. This is unsafe.

Was it Loaded Safely?
1. Eggs were loaded on top of other food in this delivery vehicle. This is unsafe because eggs, an allergen, are being stored over other food, which can result in contamination.
2. Chemicals were loaded on the same pallet with food. Chemicals should never be stored with food because they can contaminate it.

Cleaning and Sanitizing
1. B. A scale used in a clean room to weigh exposed food must be cleaned and sanitized.
2. A. 4; B. 2; C. 5; D. 3; E. 1
3. B. The scoop must be cleaned and sanitized because it may have become contaminated after falling on the floor.
C. The prep table must be cleaned and sanitized. Items that will come in contact with exposed food must be cleaned and sanitized when changing to a new product or between allergens.
D. The scoop that Maria will be using must be cleaned and sanitized. Items that will come in contact with exposed food must be cleaned and sanitized before and after use.
4. A
5. A, B

Washing Tools and Utensils
1. D
2. A. 5; B. 3; C. 4; D. 1; E. 2

That's Just Garbage
1. 2. Garbage should not be stored against a wall in the facility. It should be removed from the facility as quickly as possible.
Certificate of Achievement

This certificate is awarded to

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