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The Flow of Food: An Introduction

The Flow of Food: An Introduction

Objectives:

By the end of this chapter, you should be able to identify the following:

- How to prevent cross-contamination
- How to prevent time-temperature abuse
- How to use and maintain thermometers correctly

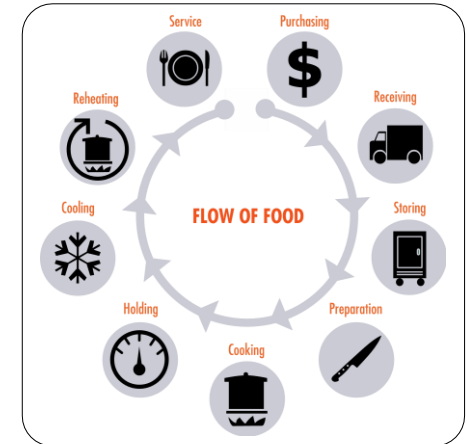
The Flow of Food

The flow of food:

The path that food takes through your operation

To keep food safe throughout the flow of food:

- Prevent cross-contamination.
- Prevent time-temperature abuse.



Preventing Cross-Contamination

Separate equipment:

- Use separate equipment for raw and ready-to-eat food.



Clean and sanitize:

- Clean and sanitize all work surfaces, equipment, and utensils before and after each task.



Preventing Cross-Contamination

Prep raw and ready-to-eat food at different times:

- If using the same prep table, prep raw meat, fish, and poultry at a different time than ready-to-eat food.
- When possible, prep ready-to-eat food before raw food.



Buy prepared food:

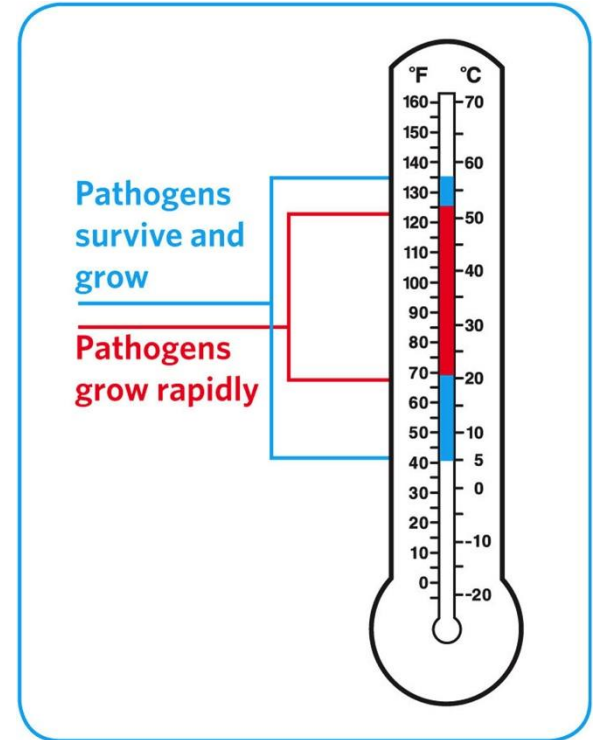
- Buy food items that don't require much prepping or handling.



Preventing Time-Temperature Abuse

Time-temperature control:

- Food held in the range of 41°F and 135°F (5°C and 57°C) has been time-temperature abused.
- Food is being temperature abused whenever it is handled in the following ways:
 - Cooked to the wrong internal temperature
 - Held at the wrong temperature
 - Cooled or reheated incorrectly



Preventing Time-Temperature Abuse

Avoid time-temperature abuse:

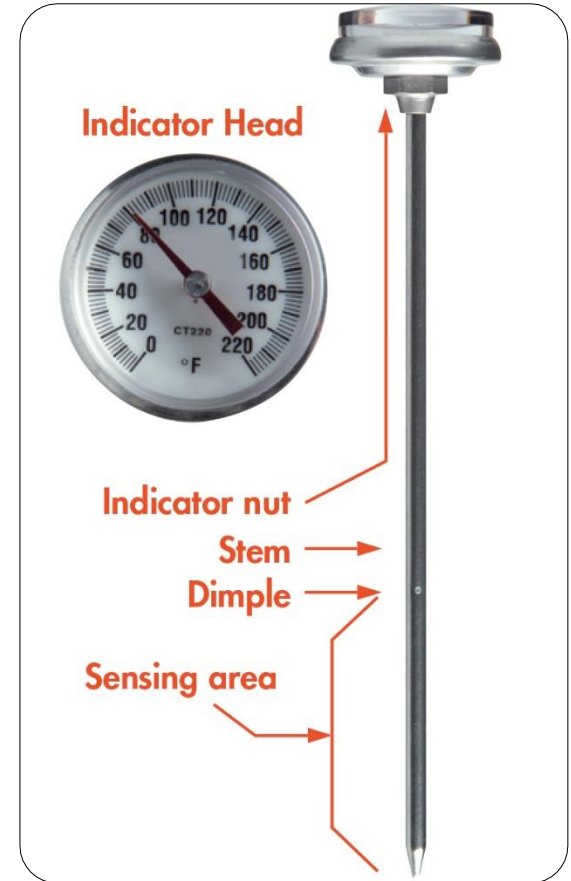
- Monitor time and temperature.
- Make sure the correct kinds of thermometers are available.
- Regularly record temperatures and the times they are taken.
- Minimize the time that food spends in the temperature danger zone.
- Take corrective actions if time-temperature standards are not met.



Monitoring Time and Temperature

Bimetallic stemmed thermometer

- Measures temperature through a metal stem
- Has a sensing area from the tip to the dimple
 - The entire sensing area must be inserted into the food.
- Has a calibration nut to keep the thermometer accurate



Monitoring Time and Temperature

Thermocouples and thermistors:

- Measure temperature through a metal probe
- Display temperatures digitally
- Have a sensing area on the tip of their probe
- Come with interchangeable probes:
 - Immersion probe
 - Surface probe
 - Penetration probe
 - Air probe



Monitoring Time and Temperature

Infrared (laser) thermometers:

- Used to measure the surface temperature of food and equipment.
- Hold as close to the food or equipment as possible.
- Remove anything between the thermometer and the food, food package, or equipment.
- Follow manufacturers' guidelines.



Monitoring Time and Temperature

Maximum registering thermometer:

- Indicates the highest temperature reached during use
- Used where temperature readings cannot be continuously observed



Time-temperature indicators (TTI):

- Monitor both time and temperature
- Are attached to packages by the supplier
- A color change appears on the device when time-temperature abuse has occurred

General Thermometer Guidelines

When using thermometers:

- Wash, rinse, sanitize, and air-dry thermometers before and after using them.
- Calibrate them at these times:
 - After they have been bumped or dropped
 - After they have been exposed to extreme temperature changes
 - Before deliveries arrive
 - Before each shift



General Thermometer Guidelines

When using thermometers:

- Make sure they are accurate:
 - If used to check food, thermometers must be accurate to $\pm 2^{\circ}\text{F}$ or $\pm 1^{\circ}\text{C}$.
 - If used to check air temperature, thermometers must be accurate to $\pm 3^{\circ}\text{F}$ or $\pm 1.5^{\circ}\text{C}$.
- Only use glass thermometers if they are enclosed in a shatterproof casing.
- Insert the thermometer stem or probe into the thickest part of the food.
- Take more than one reading in different spots.
- Wait for the thermometer reading to steady.



Calibrating Thermometers

Ice-point method:



1. Fill a large container with ice, and add tap water.



2. Submerge the sensing area, and wait 30 seconds.



3. Adjust the thermometer so it reads 32°F (0°C).



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The Flow of Food: Purchasing, Receiving, and Storage

The Flow of Food: Purchasing, Receiving, and Storage

Objectives:

By the end of this chapter, you should be able to identify the following:

- What is an approved, reputable supplier
- Criteria for accepting or rejecting food during receiving
- How to label and date food
- How to store food and nonfood items to prevent time-temperature abuse and contamination

General Purchasing Principles

Purchase food from approved, reputable suppliers:

- They have been inspected.
- They meet all applicable local, state, and federal laws.

Arrange deliveries so they arrive:

- When staff has enough time to do inspections.
- When they can be correctly received.

Receiving and Inspecting

General principles

- Make specific staff responsible for receiving:
 - Train them to follow food safety guidelines.
 - Provide them with the correct tools.
- Have enough trained staff available to receive food promptly:
 - Inspect deliveries immediately upon receipt.
 - Inspect delivery trucks for signs of contamination.
 - Visually check food items and check temperatures.
- Store items promptly after receiving.



Receiving and Inspecting

Key drop deliveries:

- Supplier is given after-hours access to the operation to make deliveries.
- Staff must inspect the deliveries upon arrival at the operation.
- Deliveries must meet the following criteria:
 - From an approved source
 - Placed in the correct storage location to maintain the required temperature
 - Protected from contamination in storage
 - **NOT** contaminated
 - Presented honestly

Receiving and Inspecting

Rejecting items:

- Separate rejected items from accepted items.
- Tell the delivery person what is wrong with the item.
- Get a signed adjustment or credit slip before giving the rejected item to the delivery person.
- Log the incident on the invoice or receiving document.

Receiving and Inspecting

Recalls:

- Identify the recalled food items.
- Remove the item from inventory.
- Store the item separately.
- Label the item to prevent it from being placed back in inventory.
- Inform staff not to use the product.
- Refer to the vendor's notification or recall notice for what to do with the item.



Receiving and Inspecting

Checking the temperature of meat, poultry, and fish:

- Insert the thermometer stem or probe into the thickest part of the food (usually the center).



Receiving and Inspecting

Checking the temperature of ROP Food (MAP, vacuum-packed, and *sous vide* food):

- Insert the thermometer stem or probe between two packages.
- As an alternative, fold packaging around the thermometer stem or probe.



Receiving and Inspecting

Checking the temperature of other packaged food:

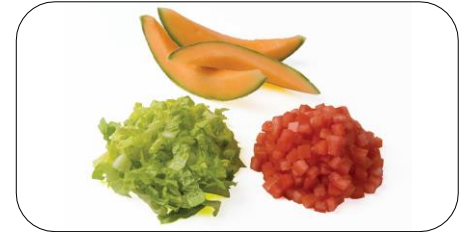
- Open the package and insert the thermometer stem or probe into the food.



Receiving and Inspecting

Temperature criteria for deliveries:

- **Cold TCS food:** Receive at 41°F (5°C) or lower, unless otherwise specified.
- **Live shellfish (oysters, mussels, clams, and scallops):** Receive at an air temperature of 45°F (7°C) and an internal temperature no greater than 50°F (10°C).
 - Once received, the shellfish must be cooled to 41°F (5°C) or lower in four hours.
- **Shucked shellfish:** Receive at 45°F (7°C) or lower.
 - Cool the shellfish to 41°F (5°C) or lower in four hours.



Receiving and Inspecting

Temperature criteria for deliveries:

- **Milk:** Receive at 45°F (7°C) or lower.
 - Cool the milk to 41°F (5°C) or lower in four hours.
- **Shell eggs:** Receive at an air temperature of 45°F (7°C) or lower.
- **Hot TCS food:** Receive at 135°F (57°C) or higher.



Receiving and Inspecting

Temperature criteria for deliveries:

- **Frozen food:** Receive frozen solid.
- Reject frozen food if there is evidence of thawing and refreezing:
 - Fluids or water stains in case bottoms or on packaging
 - Ice crystals or frozen liquids on the food or packaging



Receiving and Inspecting

Reject packaged items with:

- Tears, holes, or punctures in packaging
- Cans—Severe dents in the seam or body, missing labels, swollen or bulging ends, holes, leaks, rust
- ROP food—Bloating or leaking
- Broken cartons or seals



Receiving and Inspecting

Reject packaged items with:

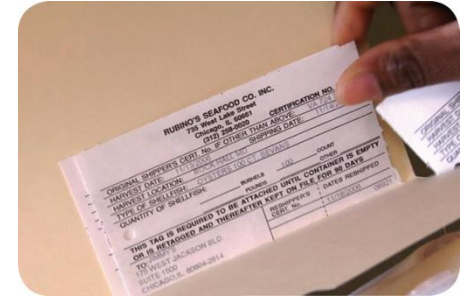
- Dirty and discolored packaging
- Leaks, dampness, or water stains
- Signs of pests or pest damage
- Signs of tampering
- Missing or incorrect labels
- Expired use-by/expiration dates



Receiving and Inspecting

Required documents:

- Shellfish must be received with shellstock identification tags:
 - Tags indicate when and where the shellfish were harvested.
- Store shellfish in their original container:
 - Do **NOT** remove the shellstock tag until the last shellfish is used.
 - Write the date the last shellfish was used on the shellstock tag.
 - Keep the shellstock tag on file for 90 days after the last shellfish was used.



Receiving and Inspecting

Required documents:

- Fish that will be eaten raw or partially cooked:
 - Documentation must show the fish was correctly frozen before being received.
 - Keep documents for 90 days from the sale of the fish.
- Farm raised fish:
 - Must have documentation stating the fish was raised to FDA standards.
 - Keep documents for 90 days from the sale of the fish.

Receiving and Inspecting

Assessing food quality:

- **Appearance:** Reject food that is moldy or has an abnormal color.
- **Texture:** Reject meat, fish, or poultry if:
 - It is slimy, sticky, or dry.
 - It has soft flesh that leaves an imprint when touched.
- **Odor:** Reject food with an abnormal or unpleasant odor.



Storage

Labeling food for use on-site:

- All items not in their original containers must be labeled.
- Food labels should include the common name of the food or a statement that clearly and accurately identifies it.
- It is not necessary to label food if it clearly will not be mistaken for another item.



Storage

Labeling food packaged on-site for retail sale:

- Common name of the food or a statement clearly identifying it
- Quantity of the food
- If the item contains two or more ingredients, list of the ingredients and subingredients in descending order by weight
- List of artificial colors and flavors and chemical preservatives
- Name and place of business of the manufacturer, packer, or distributor
- Source of each major food allergen contained in the food

Storage

Date marking:

- Ready-to-eat TCS food must be marked if held for longer than 24 hours:
 - Date mark must indicate when the food must be sold, eaten, or thrown out.
- Ready-to-eat TCS food can be stored for only seven days if it is held at 41°F (5°C) or lower:
 - Day 1 is the day the food was prepared or a commercial container was opened.
 - For example, potato salad prepared and stored on October 1 would have a discard date of October 7 on the label.



Storage

Date marking:

- Operations use different systems for date marking:
 - Some write the day or date the food was prepared on the label.
 - Others write the use-by day or date on the label.



Storage

Date marking:

If:

- A commercially processed food has a use-by date that is less than seven days from the date the container was opened.

Then:

- The container should be marked with this use-by date as long as the date is based on food safety.

Storage

Date marking:

- When combining food with different use-by dates in a dish, base the discard date of the dish on the earliest use-by date of ingredients.
- Consider a shrimp and sausage jambalaya prepared on December 4:
 - The shrimp has a use-by date of December 8.
 - The sausage has a use-by date of December 10.
 - The use-by date of the jambalaya is December 8.

| December | | | | | | |
|-----------------------------|--------|---------|-----------|--|--------|-------------------------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | | | 1 | 2 | 3 |
| 4 Jambalaya Prep Date | 5 | 6 | 7 | 8 Shrimp Use-By Jambalaya Use-By | 9 | 10 Sausage Use-By |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |

Storage

Temperatures:

- Store TCS food at an internal temperature of 41°F (5°C) or lower or 135°F (57°C) or higher.
- Store frozen food at temperatures that keep it frozen.
- Make sure storage units have at least one air temperature measuring device:
 - It must be accurate to +/- 3°F or +/- 1.5°C.
 - Put it in the warmest part of refrigerated units or the coldest part of hot-holding units



Storage

Temperatures:

- Do **NOT** overload coolers or freezers.
- Frequent opening of the cooler lets warm air inside, which can affect food safety.
- Use open shelving:
 - Lining shelving restricts circulation.
- Monitor food temperatures regularly:
 - Randomly sample food temperatures.
 - If the food is not at the correct temperature, throw it out.



Storage

Rotate food to use the oldest inventory first:

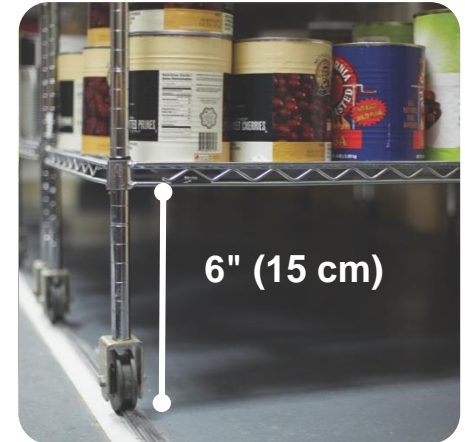
- One way to rotate products is to follow FIFO:
 1. Identify the food item's use-by or expiration date.
 2. Store items with the earliest use-by or expiration dates in front of items with later dates.
 3. Once shelved, use those items stored in front first.
 4. Throw out food that has passed its manufacturer's use-by or expiration date.



Storage

Preventing cross-contamination:

- Store all items in designated storage areas.
 - Store items away from walls and at least six inches (15 centimeters) off the floor.
 - Store single-use items (e.g., sleeve of single-use cups, single-use gloves) in original packaging.



Storage

Preventing cross-contamination:

- Store food in containers intended for food.
- Use containers that are durable, leakproof, and able to be sealed or covered.
- **NEVER** use empty food containers to store chemicals; **NEVER** put food in empty chemical containers.



Storage

Preventing cross-contamination:

- Keep all storage areas clean and dry.
- Clean up spills and leaks promptly.
- Clean dollies, carts, transporters, and trays often.
- Store food in containers that have been cleaned and sanitized.
- Store dirty linens in clean, nonabsorbent containers or washable laundry bags.



Storage

Preventing cross-contamination:

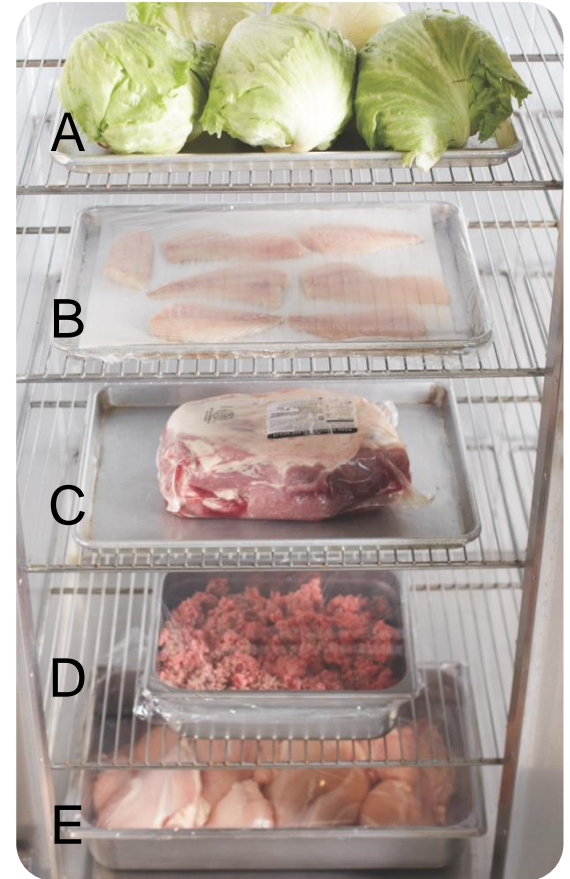
- Wrap or cover food.
- Store raw meat, poultry, and seafood separately from ready-to-eat food.
 - If this is not possible, store ready-to-eat food above raw meat, poultry, and seafood.
 - This will prevent juices from raw food from dripping onto ready-to-eat food.



Storage

Preventing cross-contamination:

- Store food items in the following top-to-bottom order:
 - A. Ready-to-eat food
 - B. Seafood
 - C. Whole cuts of beef and pork
 - D. Ground meat and ground fish
 - E. Whole and ground poultry
- This storage order is based on the minimum internal cooking temperature of each food.



Storage

Food should be stored in a clean, dry location away from dust and other contaminants:

- To prevent contamination, **NEVER** store food in these areas:
 - Locker rooms or dressing rooms
 - Restrooms or garbage rooms
 - Mechanical rooms
 - Under unshielded sewer lines or leaking water lines
 - Under stairwells

Storage

Handling damaged, spoiled, or incorrectly stored food:

- Discard food that has become unsafe:
 - Expired, damaged, spoiled, or incorrectly stored food.
 - Food missing a date mark.
 - Ready-to-eat TCS food that has exceeded its date mark.
 - Food that has exceeded time/temperature requirements.
- If food will be returned to the vendor:
 - Store the food away from other food and equipment.
 - Label the food so it will not be used.





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The Flow of Food: Preparation

The Flow of Food: Preparation

Objectives:

By the end of this chapter, you should be able to identify the following:

- Ways to prevent cross-contamination and time-temperature abuse
- Ways to thaw food correctly
- Minimum internal temperatures for cooking food safely
- Ways to cool and reheat food correctly

General Preparation Practices

When prepping food:

- Make sure workstations, cutting boards, and utensils are clean and sanitized.
- Only remove as much food from the cooler as you can prep in a short period of time.
 - This help prevent time-temperature abuse.
- Return prepped food to the cooler or cook it as quickly as possible.



General Preparation Practices

Food and color additives:

- Only use additives approved by your local regulatory authority.
- **NEVER** use more additives than are allowed by law.
- **NEVER** use additives to alter the appearance of food.
- Do **NOT** sell produce treated with sulfites before it was received in the operation.
- **NEVER** add sulfites to produce that will be eaten raw.

General Preparation Practices

Present food honestly:

- Do **NOT** use the following to misrepresent the appearance of food:
 - Food additives or color additives
 - Colored overwraps
 - Lights
- Present food in the way it was described.
 - For example, if a menu offers “Fried Perch,” another fish cannot be substituted.
- Food not presented honestly must be thrown out.

General Preparation Practices

Corrective actions:

- Food must be thrown out in the following situations:
 - When it is handled by staff who have been restricted or excluded from the operation due to illness
 - When it is contaminated by hands or bodily fluids, such as from sneezing
 - When it has exceeded the time and temperature requirements designed to keep food safe

Thawing

General guidelines for TCS food:

- Thaw food in a cooler, keeping its temperature at 41°F (5°C) or lower.
- Submerge food under running, drinkable water at 70°F (21°C) or lower.
 - Use a clean and sanitized food-prep sink.
 - Use water flow strong enough to wash away food bits.
 - **NEVER** let the temperature of the food go above 41°F (5°C) for longer than four hours.



Thawing

General guidelines for TCS food:

- Thaw food in a microwave.
 - Cook it in conventional cooking equipment immediately after thawing.
- Thaw food as part of the cooking process.



Thawing

ROP Fish:

- Frozen fish received in ROP packaging must be thawed carefully.
- If the label states that the product must remain frozen until use, then remove fish from packaging:
 - Before thawing under refrigeration
 - Before or immediately after thawing under running water



Prepping Specific Food

Produce:

- Make sure produce does not touch surfaces exposed to raw meat, seafood, or poultry.
- Wash the produce thoroughly before cutting, cooking, or combining it with other ingredients.
- To wash produce:
 - Use running water a little warmer than the produce.
 - Pull apart leafy greens and rinse thoroughly.
- Certain chemicals may be used to wash produce.



Prepping Specific Food

Produce:

- When soaking or storing produce in standing water or an ice-water slurry, do **NOT** mix:
 - Different items
 - Multiple batches of the same item
- Refrigerate and hold sliced melons, cut tomatoes, and cut leafy greens at 41°F (5°C) or lower.
- Do **NOT** serve raw seed sprouts if primarily serving a high-risk population



Prepping Specific Food

Eggs and egg mixtures:

- Handle pooled eggs (if allowed) with care:
 - Cook promptly after mixing or store at 41°F (5°C) or lower.
 - Clean and sanitize containers between batches.
- Consider using pasteurized shell eggs or egg products when prepping dishes that need little or no cooking.



Prepping Specific Food

Eggs and egg mixtures:

- Take special care when serving a high-risk population:
 - Use pasteurized eggs or egg products when serving raw or undercooked dishes.
 - Unpasteurized shell eggs can be used if the dish will be cooked all the way through (e.g., omelets, cakes).
 - Use pasteurized shell eggs if eggs will be pooled.



Prepping Specific Food

Salads containing TCS food:

- Only use leftover TCS food if it was cooked, held, cooled, and stored correctly.
- Do **NOT** use leftover TCS food that has been held for more than seven days.



Prepping Specific Food

Ice:

- Make ice from water that is safe to drink.
- **NEVER** use ice as an ingredient if it was used to keep food cold.
- Use clean and sanitized containers and scoops:
 - Store scoops outside of the ice machine in a clean, protected location.
 - **NEVER** hold ice in containers that held chemicals or raw meat, seafood, or poultry.
 - **NEVER** touch ice with hands or use a glass to scoop ice.



Preparation Practices That Have Special Requirements

You need a variance if prepping food in these ways:

- Packaging fresh juice on-site for sale at a later time, unless the juice has a warning label
- Smoking food to preserve it but not to enhance flavor
- Using food additives or components to preserve or alter food so it no longer needs time and temperature control for safety
- Curing food



Preparation Practices That Have Special Requirements

You need a variance if prepping food in these ways:

- Custom-processing animals for personal use (e.g., dressing a deer)
- Packaging food using a reduced-oxygen packaging (ROP) method
- Sprouting seeds or beans
- Offering live shellfish from a display tank



Cooking Food

When cooking TCS food, the internal portion must:

- Reach the required minimum internal temperature
- Hold that temperature for a specific amount of time



Cooking Food

When checking temperatures:

- Pick a thermometer with a probe that is the correct size for the food.
- Check the temperature in the thickest part of the food.
 - Take at least two readings in different locations.



Cooking Requirements for Specific Food

Minimum internal cooking temperature:

165°F (74°C) for 15 seconds

- Poultry—whole or ground chicken, turkey or duck
- Stuffing made with fish, meat, or poultry
- Stuffed meat, seafood, poultry, or pasta
- Dishes that include previously cooked TCS ingredients



Cooking Requirements for Specific Food

Minimum internal cooking temperature:

155°F (68°C) for 15 seconds

- Ground meat—beef, pork, and other meat
- Injected meat—including brined ham and flavor-injected roasts
- Mechanically tenderized meat
- Ratites—including ostrich and emu
- Ground seafood—including chopped or minced seafood
- Shell eggs that will be hot-held for service



Cooking Requirements for Specific Food

Minimum internal cooking temperature:

145°F (63°C) for 15 seconds

- Seafood—including fish, shellfish, and crustaceans
- Steaks/chops of pork, beef, veal, and lamb
- Commercially raised game
- Shell eggs that will be served immediately



Cooking Requirements for Specific Food

Minimum internal cooking temperature:

145°F (63°C) for four minutes

- Roasts of pork, beef, veal, and lamb
- Alternate cooking times/temperatures
 - 130°F (54°C) 112 minutes
 - 131°F (55°C) 89 minutes
 - 133°F (56°C) 56 minutes
 - 135°F (57°C) 36 minutes
 - 136°F (58°C) 28 minutes
 - 138°F (59°C) 18 minutes
 - 140°F (60°C) 12 minutes
 - 142°F (61°C) 8 minutes
 - 144°F (62°C) 5 minutes



Cooking Requirements for Specific Food

Minimum internal cooking temperature:

135°F (57°C)

- Fruit, vegetables, grains (rice, pasta), and legumes (beans, refried beans) that will be hot-held for service



Cooking TCS Food in a Microwave

Minimum internal cooking temperature:

165°F (74°C)

- Meat
- Seafood
- Poultry
- Eggs



Cooking Food

Cooking TCS food in the microwave oven:

- Cover the food to prevent drying.
- For even cooking:
 - Rotate or stir food halfway through the cooking process.
 - Let the covered food stand for at least two minutes after cooking.
- Check the temperature in at least two places.



Partial Cooking during Preparation

If partially cooking meat, seafood, poultry, or eggs or dishes containing these items:

- **NEVER** cook the food longer than 60 minutes during initial cooking.
- Cool the food immediately after initial cooking.
- Freeze or refrigerate the food after cooling it:
 - If refrigerating, hold it at 41°F (5°C) or lower and store it away from ready-to-eat food.
- Heat the food to its required minimum internal temperature before selling or serving it.
- Cool the food if it will not be served immediately or held for service.



Partial Cooking during Preparation

Procedures for partial cooking should describe:

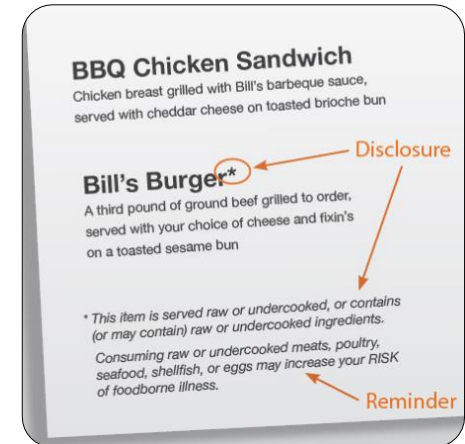
- How to monitor and document requirements
- Which corrective actions will be taken if requirements are not met
- How parcooked items will be marked after initial cooking
- How parcooked food will be stored separately from ready-to-eat food



Consumer Advisories

Disclosure:

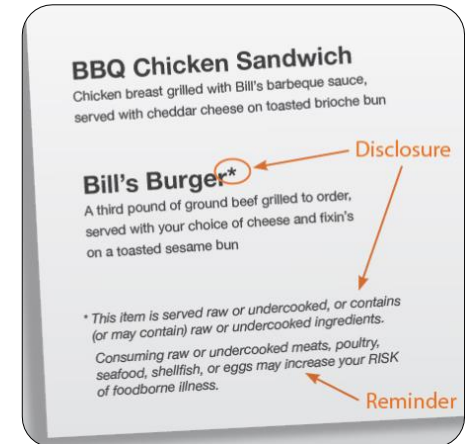
- Disclose any raw or undercooked TCS items on the menu.
- Note it on the menu next to the items:
 - An asterisk with a footnote can be used.
 - The footnote must state that the item is raw or undercooked, or contains raw or undercooked ingredients.



Consumer Advisories

Reminder:

- Advise customers who order raw or undercooked TCS food of the increased risk of foodborne illness:
 - Post a notice in the menu.
 - Provide this information using brochures, table tents, or signs.



Children's Menus

The FDA advises against offering these items on a children's menu if they are raw or undercooked:

- Meat
- Poultry
- Seafood
- Eggs



Operations That Mainly Serve High-Risk Populations

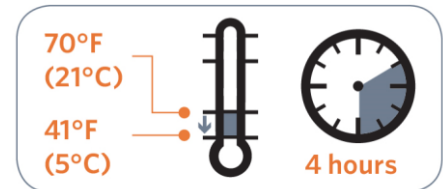
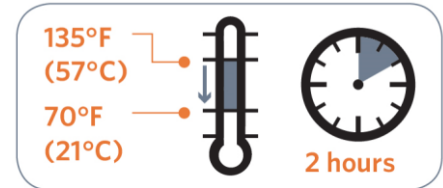
NEVER serve:

- Raw seed sprouts
- Raw or undercooked eggs (unpasteurized), meat, or seafood
 - Over-easy eggs
 - Raw oysters on the half shell
 - Rare hamburgers
- Unpasteurized milk or juice



Temperature Requirements for Cooling Food

1. Cool food from 135°F to 70°F (57°C to 21°C) within two hours.
2. Cool it from 70°F to 41°F (21°C to 5°C) or lower in the next four hours.



Temperature Requirements for Cooling Food

If you cool food from 135°F to 70°F (57°C to 21°C) in less than two hours:

- The remaining time can be used to cool it to 41°F (5°C) or lower.
- The total cooling time cannot be longer than six hours.

Example:

- If you cool food from 135°F to 70°F (57°C to 21°C) in one hour.
- Then you have five hours to get the food to 41°F (5°C) or lower.

Cooling Food

Factors that affect cooling:

- Thickness or density of the food
- Size of the food
 - Cut larger items into smaller pieces.
 - Divide large containers of food into smaller containers or shallow pans.
- Storage container
 - Stainless steel transfers heat away from food faster than plastic.
 - Shallow pans let the heat from food disperse faster than deep pans.



Cooling Food

Methods for cooling food:

- Place food in an ice-water bath.
- Place it in a blast chiller.
- Stir it with an ice paddle.
- Use ice or cold water as an ingredient.



Cooling Food

When storing food for further cooling:

- Loosely cover food containers before storing them.
- Food can be left uncovered if protected from contamination.
 - Storing uncovered containers above other food, especially raw seafood, meat, and poultry, will help prevent cross-contamination.

Reheating Food

Food reheated for immediate service:

- Can be reheated to any temperature if it was cooked and cooled correctly

Food reheated for hot-holding:

- Must be reheated within two hours to an internal temperature of 165°F (74°C) for 15 seconds
- Reheat commercially processed and packaged ready-to-eat food to an internal temperature of at least 135°F (57°C).





7

The Flow of Food: Service

The Flow of Food: Service

Objectives:

By the end of this chapter, you should be able to identify the following:

- Guidelines for holding cold food and hot food
- When and how food can be held without temperature control
- How to prevent contamination when serving food and in self-serve areas
- How to prevent contamination and time-temperature abuse when serving food off-site or through vending machines

Guidelines for Holding Food

Policies:

- Create policies about how long the operation will hold food and when it will be thrown out

Food covers and sneeze guards:

- Cover food and install sneeze guards to protect food from contaminants
- Covers protect food from contamination and help maintain food temperatures



Guidelines for Holding Food

Temperature:

- Hold TCS food at the correct temperature:
 - Hot food: 135°F (57°C) or higher
 - Cold food: 41°F (5°C) or lower

Thermometer:

- Use a thermometer to check a food's internal temperature:
 - **NEVER** use the temperature gauge on a holding unit to check the food's temperature.



Guidelines for Holding Food

Time:

- Check temperatures at least every four hours:
 - Throw out food not at 41°F (5°C) or lower or 135°F (57°C) or higher.
 - Optional: Check temperatures every two hours to leave time for corrective action.



Guidelines for Holding Food

Reheating food:

- **NEVER** use hot-holding equipment to reheat food unless it's built to do so.
- Reheat food correctly, and then move it into a holding unit.



Holding Food without Temperature Control

Cold food can be held without temperature control for up to six hours if:

- It was held at 41°F (5°C) or lower before removing it from refrigeration.
- It has a label specifying:
 - Time it was removed from refrigeration.
 - Time it must be thrown out.
- It does not exceed 70°F (21°C) during service.
 - Throw out food that exceeds this temperature.
- It is sold, served, or thrown out within six hours.



Holding Food without Temperature Control

Hot food can be held without temperature control for up to four hours if:

- It was held at 135°F (57°C) or higher before removing it from temperature control.
- It has a label specifying when the item must be thrown out.
- It is sold, served, or thrown out within four hours.



Kitchen Staff Guidelines for Serving Food

Prevent contamination when serving food:

- Avoid bare-hand contact with ready-to-eat food:
 - Wear single-use gloves.
 - Use spatulas, tongs, deli sheets, or other utensils.
- Use clean and sanitized utensils for serving:
 - Use separate utensils for each food.
 - Clean and sanitize utensils after each task.
 - If using them continuously, clean and sanitize them at least every four hours.



Kitchen Staff Guidelines for Serving Food

Prevent contamination when serving food:

- Store serving utensils correctly between uses:
 - Leave them in the food with the handle extended above the container rim.
 - Place them on a clean and sanitized food-contact surface.
 - Optional: Store spoons or scoops under running water or in a container of water at least 135°F (57°C).



Kitchen Staff Guidelines for Serving Food

Prevent contamination when serving food:

- Take-home containers can be refilled only when the containers are:
 - Designed for reuse
 - Provided to guest by the operation
 - Cleaned and sanitized correctly

Kitchen Staff Guidelines for Serving Food

Prevent contamination when serving food:

- Take-home beverage containers can be refilled if the:
 - Beverage is not a TCS food.
 - Container is refilled for the same guest.
 - Container can be effectively cleaned.
 - Container is rinsed with fresh, hot water under pressure before refilling.
 - Container is refilled by staff in the operation or by the guest using a process that prevents contamination.

Service Staff Guidelines for Serving Food

Handling dishes and glassware

Correct



Incorrect



Service Staff Guidelines for Serving Food

If you preset tableware:

- Wrap or cover the items to prevent contamination.

Table settings do not need to be wrapped or covered if extra settings are either:

- Removed when guests are seated.
- If left on the table, cleaned and sanitized after guests have left.



Service Staff Guidelines for Serving Food

NEVER re-serve:

- Food returned by a guest
- Uncovered condiments
- Uneaten bread
- Plate garnishes

Generally, only unopened, prepackaged food in good condition can be re-served:

- Condiment packets
- Wrapped crackers or breadsticks



Self-Service Areas

Prevent time-temperature abuse and contamination:

- Use sneeze guards, display cases, or packaging.
- Use labels to identify food items.
- Hold food at the correct temperature:
 - Hot food: 135°F (57°C) or higher
 - Cold food: 41°F (5°C) or lower



Self-Service Areas

Prevent time-temperature abuse and contamination:

- Keep raw meat, fish, and poultry separate from ready-to-eat food.
- Do **NOT** let customers refill dirty plates or use dirty utensils at self-service areas.
- Stock displays with the correct utensils.
- **NEVER** use ice as an ingredient if it was used to keep food or beverages cold.



Labeling Bulk Food in Self-Service Areas

Label bulk food in self-service areas:

- Make sure the label is in plain view of the customer.
- Include the manufacturer or processor label provided with the food.
 - As an alternative, provide the information using a card, sign, or other labeling method.

Labeling Bulk Food in Self-Service Areas

A label is not needed for bulk unpackaged food, such as bakery products, if:

- The product makes no claim regarding health or nutrient content.
- No laws require the item to be labeled.
- The food is manufactured or prepared on the premises.
- The food is manufactured or prepared at another operation or processing plant owned by the same person.
 - The operation must also be regulated.

Off-Site Service

When transporting food off-site:

- Use insulated, food-grade containers designed to keep food from mixing, leaking, and spilling.
- Label food with a use-by date and time, and reheating and service instructions.
- Clean the inside of delivery vehicles regularly.
- Check internal food temperatures.



Off-Site Service

When transporting food off-site:

- Make sure the service site has the correct utilities:
 - Safe water for cooking, dishwashing, and handwashing
 - Garbage containers stored away from food-prep, storage, and serving areas
- Store raw meat, poultry, and seafood separate from ready-to-eat items.



Vending Machines

To keep vended food safe:

- Check product shelf life daily:
 - Throw away food past its expiration or use-by date.
 - Throw away refrigerated food prepped on-site and not sold in seven days.
- Keep TCS food at the correct temperature.
- Dispense TCS food in its original container.
- Wash and wrap fresh fruit with edible peels before putting it in the machine.

