6 The Flow of Food: Preparation

ServSafe
National Restaurant Association

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

If packaging fish using a reduced-oxygen packaging method the fish must:

- Be frozen before, during, or after packaging
- Include a label that states the fish must be frozen until used

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

Preparation Practices That Have Special Requirements

A HACCP plan may be required when applying for a variance:

- The plan must account for food safety risks
- The establishment must comply with the plan and procedures
- Records must be provided and maintained

Preparation Practices That Have Special Requirements

Records must show that you are regularly:

- Following procedures for monitoring Critical Control Points
- Monitoring the Critical Control Points
- Verifying the effectiveness of the operation or process
- Taking the necessary corrective actions if there is a failure at a Critical Control Point

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 <1 second (Instantaneous)

- 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 17 seconds

- Ground meat—beef, pork, and other meat
- Injected meat—including brined ham and flavor-injected roasts
- Mechanically tenderized meat
- Ground meat from game animals commercially raised and inspected
- 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) (no minimum time)

- Food from plants, including fruits, vegetables, grains (e.g., rice, pasta), and legumes (e.g., 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

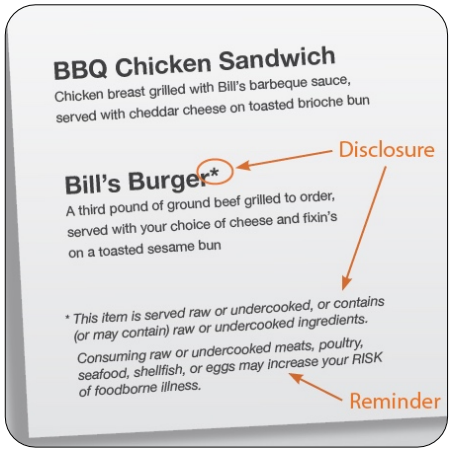
Procedures for partial cooking should describe:

- 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:

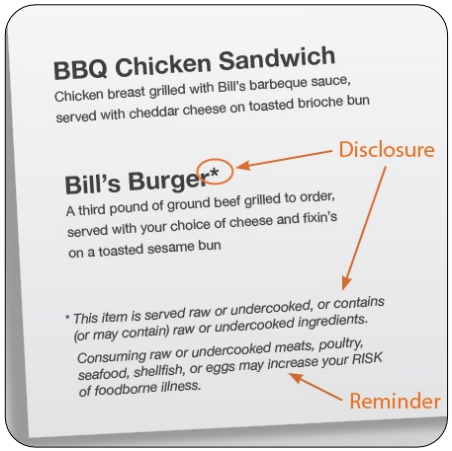
- Disclose any raw or undercooked TCS items on the menu.
- Note it on the menu next to the items:
  - An asterisk with a footnote can be used.
  - The footnote must state that the item is raw or undercooked, or contains raw or undercooked ingredients.



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

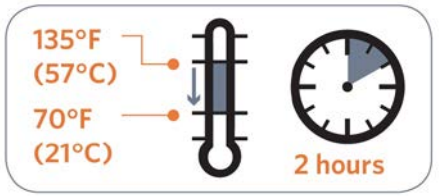
NEVER serve:

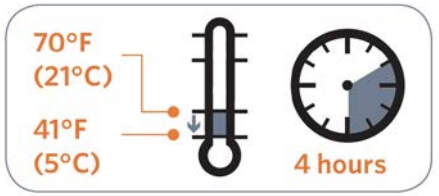
- Raw seed sprouts
- Raw or undercooked eggs (unpasteurized), meat, or seafood
  - Over-easy eggs
  - Raw oysters on the half shell
  - Rare hamburgers
- Unpasteurized milk or juice

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).