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Cooling Food the Right Way

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Food Safe South Dakota

A self-study for food-preparation sites

COOLING FOOD THE RIGHT WAY

Not cooling food properly can lead to food-borne illness. Food is especially vulnerable when it is cooled, because cooling requires that the food pass through the Temperature Danger Zone (between 41°F and 140°F).

COOL IT!

Sue cooked up a large pot of her famous chili the night before the big company party. After documenting the internal temperature at 165°F, she took the large pot of cooked chili directly off the stove at 6 p.m., covered it tightly with plastic wrap, and placed it in the cooler for the night. The next day she reheated the chili and served it to the employees. About 24 hours after consuming the chili, people became nauseated and had abdominal cramps and diarrhea.

USE THE 2-STEP FOOD COOLING METHOD FOR LARGE QUANTITIES:

Cool food from 140°F to 70°F within 2 hours, and then continue to cool food from 70°F to 41°F in an additional 4 hours.

POTENTIALLY HAZARDOUS FOODS (PHF):

PHFs are foods in which bacteria grow very well at room temperature. Examples of PHFs are meats, poultry, fish, eggs, milk products, sliced melons, cooked vegetables (such as potatoes), cooked pasta, and rice.

COOLING POTENTIALLY HAZARDOUS FOODS:

- Cool to 41°F or below within 4 hours if prepared from ingredients at room temperature. Examples are salads, sliced melons, or sandwiches.
- If a PHF is received from the supplier in compliance with laws allowing a temperature above 41°F during shipment, it must be cooled to 41°F or below within 4 hours.
- Use the following methods to cool foods faster:
  - Place food in shallow pans.
  - Separate food into smaller or thinner portions.
  - Use rapid cooling equipment (e.g., a blast chiller) or cooling paddles.
  - Place food in a container in an ice-water bath and stir frequently.
  - Use containers that transfer heat well, such as stainless steel. Glass and plastic do not transfer heat well.
  - Add ice as an ingredient.
  - Use cooling paddles.

COOLING/COLD HOLDING EQUIPMENT:

When food is placed in cooling or cold-holding equipment, consider the following:

- Allow for adequate air circulation—do not stack containers.
- Cover loosely, or leave uncovered if protected from overhead contamination.
- Do not place ready-to-eat foods below raw foods that require further cooking.

DIGGING DEEPER—COOLING FOOD THE RIGHT WAY:

1) Refer to the scenario "Cool It." What should Sue have done to the chili before placing it in the cooler?
   a) Cool the chili in shallow pans using the 2-step cooling method.
   b) Place the chili in a blast chiller.
   c) Use a cooling paddle to bring the temperature from 140°F to 70°F within 2 hours.
   d) All of the above.

2) How much time is allowed to cool food from 140°F to 70°F?
   a) 1 hour
   b) 2 hours
   c) 4 hours
   d) 6 hours

3) How much time is allowed to cool food from 70°F to 41°F?
   a) 1 hour
   b) 2 hours
   c) 3 hours
   d) 4 hours

4) What kind of containers cool food the fastest?
   a) metal (stainless steel)
   b) glass
   c) plastic

5) When cooling a large piece of meat it is best to…
   a) Place the whole piece of meat in the refrigerator immediately after cooking.
   b) Let the meat sit on the counter to cool before placing in the refrigerator.
   c) Cut the meat into smaller sections after cooking, then place in the refrigerator to cool.

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