



# Cooling Food in the Correct Amount of Time

Pathogens grow well in the temperature danger zone. However, they grow much faster at temperatures between 125°F and 70°F (52°C and 21°C). Food must pass through this temperature range quickly to reduce this growth.

1. First, cool food from 135°F to 70°F (57°C and 21°C) within TWO hours
2. Then cool food from 70°F to 41°F (21°C to 5°C) or lower in the next FOUR hours
  - ◆ If food has not been cooled to 70°F (21°C) within two hours, it must be reheated & then cooled again.

## Factors that affect cooling:

- Thickness or density of the food
  - The denser the food the more slowly it will cool
- Size of the food
  - Large food items cool more slow than smaller items. To let food cool faster, you should reduce its size.
- Storage Container
  - Stainless steel transfers heat away from food faster than plastic. Shallow pans let the hear from food disperse faster than deep pans.

## Methods for cooling:

- NEVER cool large amounts of hot food in a cooler. Coolers are not made to cool large amounts of hot food
- Blast Chiller
  - Blast cold air across food at high speeds to remove heat
- Ice Bath
  - Use ice water to directly or indirectly cool food down
- Ice Paddle
  - A plastic paddle that you fill with ice or water then frozen. Use the paddle to stir the hot food to cool
- Ice or Cold Water as Ingredient
  - When cooling soups or stews, add less water/stock than the recipe. When finished cooking, add the water as ice or cold water/stock

## 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