



County of Sacramento

COOLING FOODS PROPERLY

Introduction

Cooling cooked foods properly and quickly is one of the important defenses to prevent foodborne illness. Improper cooling of cooked foods is a critical (major) violation.

Critical action

Cooked foods that are not immediately served need to be cooled properly first, and then placed in a refrigerator.

Make sure that the food has an internal temperature of 41°F or less.

Note: If the food remains at a higher temperature before and during storage, an environment for bacterial growth can be created. Slow cooling allows bacteria to grow rapidly, and causes potential danger.

Factors that influence cooling

The primary factor that influences the rate at which food cools is mass. Generally, the more dense the food and the greater the amount of food, the longer the food will take to cool.

Methods of cooling

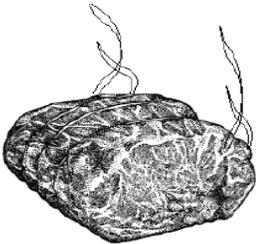
Here are some effective ways to cool food quickly and properly:

1. Reduce food mass
2. Use shallow pans
3. Use ice water bath
4. Adapt recipes
5. Use a Quick Chill Unit

Reduce food mass

Reduce the size or mass of the food.

Large portions, such as a whole turkey, roasts, or stews, should be divided into smaller portions to help cool the food faster. The smaller the portions, the quicker the cool down time!



Use shallow pans

Use shallow pans to cool foods, especially foods that are thick, like refried beans.

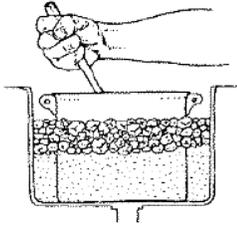


- The pan should be no more than 4 inches high and the food depth should be no more than 2 inches deep.
- Keep food uncovered, if safe, or loosely covered to allow heat to escape.
- Do not stack the pans on top of one another. Stacking not only increases mass, but prevents the air from flowing around the pans so heat can be removed from the food product.

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Use ice baths



An ice water bath is effective for cooling soups, stews, and sauces. This method helps decrease the food temperature quickly and safely.

- Fill a large container or sink with ice and a small amount of water to make a slush.
 - Then place the food dish to be cooled into the ice bath.
 - Stir the food frequently to avoid hot spots and to enhance cooling.
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Adapt recipes

You can reduce cooling time by adapting your recipes. When cooling foods like soups:

- Reduce the original amount of water or liquid called for in the recipe.
- Then add ice at the final preparation step.

If further cooling is required prior to storage, use an ice bath or shallow containers.

Use a quick chill unit

A quick chill unit uses advanced technology to cool foods quickly. Although this method is more expensive than the other methods, some facilities may have access to a commercial Quick Chill Unit that can cool foods fast and efficiently. Usually hot foods can be cooled to a temperature of 37°F within 90 minutes.



Helpful hints

Here are some additional hints to remember when cooling foods.

1. Verify temperatures. Use a thermometer to record temperatures when cooling to make sure the internal food temperature is cooled from:
**135° F to 70° F within 2 hours; and then
70° F to 41° F or below, within 4 hours.**
 2. Use stainless steel containers instead of plastic containers to store divided portions of food. The metal helps cool food faster than plastic.
 3. Always label food containers with important information like the time and date of preparation.
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For more information

For more information, contact the Environmental Health Division, (916) 875-8440. The Environmental Health Specialist who evaluates your facility can assist you in setting up proper cooling methods for your specific menu items and food facility needs.
