# **Properly Cooling Foods**

The Alabama Department of Public Health requires that hot foods be cooled from  $135^{\circ}F$  to  $70^{\circ}F$  within 2 hours and cooled from  $70^{\circ}F$  to  $41^{\circ}F$  within an additional 4 hours. In order to meet these requirements, establishments must be equipped with a thermometer, accurate to  $\pm 2^{\circ}F$  to check the food temperature as it cools. Food must be properly cooled using one of the following methods:

Rapidly cooling foods of large volume or prepared in large quantities by cutting large items into smaller pieces or dividing large batches into several smaller ones.





■ By placing the pan in larger pans of ice and stir foods as they cool. This is known as an Ice-Water Bath.

Place the food in shallow stainless steel pans. Thick foods, such as chili and stew, should be in pans with a product depth no more than two inches.
Thinner liquids, such as broth may be in pans three inches deep.

### Remember!

NEVER use display refrigerators or freezers to cool foods. Hot foods can raise the temperature of the unit and endanger the other foods stored there.

# Keep Hot Foods Hot; Keep Cold Foods Cold!

The temperature of potentially hazardous foods must be 41°F or below or 135°F or above at all times. To ensure foods do not remain at temperatures favorable to bacterial growth, follow these guidelines.

#### Hot Holding:

- Hot food storage facilities shall be provided to assure the maintenance of food at the required temperature during storage.
- Keep foods covered to maintain proper temperature.
- Use a product thermometer to frequently check food temperature.
- Never add fresh foods to old foods.
- Use cleaned and sanitized utensils.
- If hot foods temperature falls below 135°F, reheat the food to 165°F or higher within 2 hours one time only.

#### **Cold Holding:**

- Use only cold-holding equipment that can keep foods at 41°F or lower.
- Never place ready-to-eat cold foods in direct contact with ice.

For additional information contact:

Alabama Deparment of Public Health

Bureau of Environmental Services Bureau of Environmental Services Suite 1250

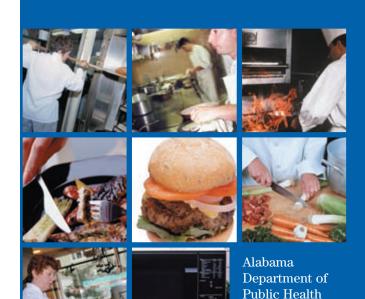
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**PREVENTING** 

# FOODBORNE I L L N E S S

# WITH TEMPERATURE CONTROL



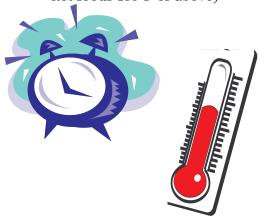
Bureau of

Services

Environmental

he U.S. Centers for Disease Control and Prevention list the following reasons as the **LEADING CAUSES** of <u>bacterial foodborne illness</u>:

- Failure to properly cool foods
- Failure to properly cook or reheat food (such as undercooked hamburger)
- Failure to hold food at proper temperature (cold foods 41°F or below; hot foods 135°F or above)



Time and Temperature are the most important factors Food Service Managers can use to control bacterial growth in food.

It is important that **Potentially Hazardous Foods** (usually moist, high-protein foods on which bacteria can grow easily) not remain in the temperature danger zone for more than four hours during the entire food preparation process.

The **temperature danger zone** is defined as the temperature between 41°F to 135°F. Foods left too long in the danger zone can cause foodborne illness.

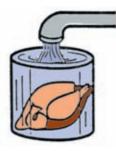
To control time and temperature factors, it is important that Food Service Managers follow proper thawing, cooking, holding, cooling, and reheating techniques to reduce the time food spends in the temperature danger zone.

he department of public health requires that food must be properly thawed using one of these four methods.



1. In refrigerated units at a temperature not to exceed 41°F. Place food in pans below ready-to-eat or cooked foods.

2. Under potable running water of a temperature of 70°F or below





3. In a microwave oven with no interruption in the cooking process.

4. As part of the conventional cooking proces





NEVER thaw food at room temperature!

You can make sure foods are thoroughly heated or cooked by using the guide below.

| Minimum Cooking Temperatures  |                                  |   |
|---|----------------------------------|---|
| FOOD  | TEMPERA-<br>TURE                 | TIME                                      |
| Potentially hazardous foods not otherwise specified, including eggs for immediate service | 145°F                            | 15 sec                                    |
| Inspected and approved game animals; ratites (emu, ostrich, rhea)                         | 155°F                            | 15 sec                                    |
| Poultry, poultry stuffing, stuffed meats and stuffing containing meat                     | 165°F                            | 15 sec                                    |
| Ground meats, ground fish, injected meats and eggs other than Part 1 above                | 158°F<br>155°F<br>150°F<br>145°F | < 1 sec<br>15 sec or<br>1 min or<br>3 min |

Roast beef can be cooked to 130°F.

For Microwave cooking:

- Cook to a minimum of 165°F in all parts of the food.
- Rotate or stir midway through cooking to help spread the heat.

The only way to verify that items you cook have reached these minimum temperatures is to use a thermometer to check the foods.

You do not have to check every item, but you should verify at least twice per day, or once per shift, that the prearranged time and temperature settings for the cooking equipment are meeting the requirements.