

Why Heat?

For centuries people have used heat to prepare their food. However, it wasn't until the mid-1800's that we began to understand that heat also kills the harmful bacteria in food.

The world is teeming with bacteria (germs). Some are good like those that help us to make cheese, vinegar and sour cream, and some are bad like those that cause food spoilage and produce foodborne illness.

To grow and reproduce, bacteria need three conditions: moisture, warmth and food. If any one of these necessities is missing, bacteria will not grow.

Room temperature, known as the Temperature Danger Zone, is from 45 degrees F to 140 degrees F. These temperatures provide ideal conditions for the growth of pathogenic bacteria.

One of the single most important steps in food preparation is adequately controlling food temperatures.

In addition, always wash hands before handling any food, avoid cross-contamination, and keep cold foods cold.

Hot **T**ips
on
Food
Preparation

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Proper Cooling of Hot Foods

Cooked potentially hazardous* foods should be cooled rapidly.

Immediately cool hot food leftovers at or below 45 degrees F. Place food in shallow containers or divide food into smaller containers to quickly cool food.

Do not leave food on the counter to cool before refrigerating.

If leftovers are not used within 48 hours, discard or freeze.

Pre-chill foods before putting into the freezer. Warm food products will raise the temperature of the freezer.

To pre-chill foods, immediately move hot food leftovers to the refrigerator. Place in shallow containers or divide food into smaller containers to quickly chill food. Once food has cooled, move to the freezer.

* Potentially hazardous food is any food that consists in whole or in part of milk or milk products, eggs, meat, poultry, fish, shellfish, edible crustacea or other ingredients, including synthetic ingredients, and which is in a form capable of supporting rapid and progressive growth of infectious or toxigenic microorganisms.

Temperature Guide for Cooking

Food Product	Internal Temperature (degrees F)
Ground Products	
Hamburger	160
Beef, veal, lamb, pork	160
Chicken, turkey	165
Beef, Veal, Lamb	
Roasts and steaks	
medium-rare	145
medium	160
well-done	170
Pork	
Chops, roasts, ribs	
medium	160
well-done	170
Ham (fresh)	160
Ham (fully cooked, to reheat)	140
Sausage (fresh)	160
Poultry	
Chicken (whole and pieces)	180
Ground chicken and turkey	165
Duck	180
Turkey (unstuffed)	
whole	180
turkey breast	170
dark meat	180
stuffing	165
thighs, wings	cook until juices run clear
Eggs	
fried, poached	yolk & white are firm
casseroles	160
sauces, custards	160
Seafood	
Filletts & whole fish	opaque & flakes
Shrimp & lobster	shell turns red and flesh opaque
Scallops	milky white, opaque and firm

Microwave Cooked Food Temperatures

Microwave cooked foods should be heated an additional 25 degrees F or higher than conventional oven product cooking temperatures.

Rotate and stir food during cooking.

Cover food to retain surface moisture.

Allow food to stand covered for 2 minutes after cooking to obtain an even temperature.

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: The Temperature Danger :
: Zone is between 45 degrees :
: F and 140 degrees F. Keep :
: hot foods hot and cold :
: foods cold, or don't keep :
: them! :
:.....

Final End Cooking Temperatures

The final end cooking temperatures are the minimum safe internal temperatures for various hot foods.

Use a digital, instant read thermometer to check the internal temperature of hot foods.

Check the internal temperature in several places, especially the thickest parts of the food.