

Cooking Food Safely



Sources:

USDA Food and Inspection Service—www.fsis.usda.gov

Kitchen Companion—Be Food Safe, USDA Food and Inspection Service

Food Safety.Gov

The Food and Drug Administration Outreach and Information Center—www.fda.gov

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To Your Health!

Cook food to proper temperatures

Food Safety experts agree that foods are properly and safely cooked when they are heated for a long enough time and at a high enough temperature to kill the harmful bacteria that cause foodborne illness.

Use a food thermometer to make sure foods have been cooked to a safe internal temperature. Plus, you will avoid overcooking, giving you a safe and flavorful meal.

Common types of thermometers available:

Dial Oven-Safe:

- Reads in 1-2 minutes
- Place in thickest part of food at least 2-2½ inches deep
- Use for roasts and casseroles
- Not appropriate for thin foods such as burgers
- Remains in food while cooking
- Heat conduction of metal stem can cause false high reading



Dial Instant-Read:

- Reads in 15-20 seconds
- Place in thickest part of food at least 2-2½ inch deep
- Use for roasts and casseroles
- Use for thinner foods by turning sideways into middle of food (chops or burgers)
- Does not remain in foods while cooking
- Use to check the internal temperature of food toward and at the end of cooking time
- **During home reviews from February 2012 through May 2012, your Yours for Children monitor will give you a FREE dial instant-read thermometer as part of this training**



Pop-up Timers:

- Commonly used in roasting whole turkeys and chickens
- Pops up when food reaches final temperature
- It is recommended to always check the internal temperature with a conventional food thermometer when using a pop-up timer



USDA Revises Recommended Cooking Temperatures

As of May 2011, the U.S. Department of Agriculture (USDA) revised the recommended cooking temperatures for some meats. There is an added recommendation to allow whole cuts of meat a “rest time” of at least three minutes after cooking before carving or consuming.

There are now only 3 temperatures to remember when cooking:

- 145° F. for whole meats with a “rest time” of three minutes
- 160° F. for all ground meats and eggs
- 165° F. for all poultry (including ground), casseroles, stuffing and leftovers

The “rest time” is the amount of time the meat stands after it has been removed from the grill, oven, or other heat source. During the three minute rest time, the temperature remains constant or continues to rise, which destroys harmful bacteria. During the rest time the cooked meat juices will redistribute into the meat and not be lost by carving too soon. You will have a safer and tastier meal.

Appearance in meat is not a reliable indicator of safe cooking or risk. Only by using a food thermometer can you determine if meat has reached a sufficient temperature to destroy bacteria that cause foodborne illness.

The new recommendations clarify long-held perceptions about cooking pork. Historically, consumers viewed any pink color in pork to be a sign of undercooked meat. However, pork cooked safely to 145° F. and rested for three minutes may still retain a pink color. Cured pork, such as ham, will always remain pink after cooking.

The color of hamburger is no indicator of doneness. The color of cooked ground beef can be quite variable.




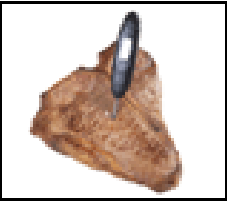


Some ground beef may appear to have lost all pink color before it is fully cooked. If raw ground beef is somewhat brown already, it may look fully cooked before it reaches a safe temperature.







Some lean ground beef may remain pink at temperatures well above the 160° F. final cooking temperature.

Only a properly used food thermometer determines doneness.

Thermometer Placement and Temperatures By Various Foods

The food thermometer should be placed in the thickest part of the food, and should not be touching bone, fat, or gristle. Begin checking the temperature toward the end of the cooking, but before the food is expected to be “done”. Make sure to clean your food thermometer with hot soapy water before and after each use.

Foods	Safe Minimum Internal Temperature	Rest Time
	Pork chops Ribs Pork roasts	145° F. At least 3 minutes
	Beef, lamb, and veal Steaks and roasts	145° F. At least 3 minutes
	Fish, all types	145° F. N/A
	Ground beef, pork, veal, and lamb	160° F. N/A

Foods	Safe Minimum Internal Temperature	Rest Time	
	Egg dishes	160° F.	N/A
	Ground turkey & chicken Stuffing & casseroles	165° F.	N/A
	Leftovers	165° F.	N/A
	Chicken & turkey breasts	165° F.	N/A
	Poultry legs, thighs, and wings	165° F.	N/A
	Whole chicken	165° F.	20 minutes for easier carving
	Whole turkey	165° F.	20 minutes for easier carving

Tips for Safe Microwave Oven Cooking

Cooking:

- ✓ Arrange food items evenly in a covered dish and add some liquid if needed. Cover the dish with a lid or plastic wrap; loosen or vent the lid or the wrap to let steam escape. The moist heat created will help destroy bacteria. Cooking bags also provide safe even cooking.
- ✓ Do not cook large cuts of meat on high power (100%). Large cuts of meat should be cooked on medium power (50%) for longer periods. This allows heat to reach the center without overcooking the outer areas.
- ✓ Stir or rotate the food midway through the microwaving time to eliminate cold spots.
- ✓ When partially cooking food in the microwave to finish cooking on the grill or conventional oven, it is important to transfer the microwaved food to the other heat source immediately. Never partially cook food and store for later use.
- ✓ Heat ready-to-eat foods such as hot dogs, luncheon meats, fully cooked hams, and leftovers until steaming hot.
- ✓ Cooking whole stuffed poultry in a microwave is not recommended. The stuffing may not reach the temperature needed to destroy bacteria.
- ✓ Use a food thermometer to check the internal temperatures according to the charts on page 3 and 4.

Defrosting:

- ✓ Remove food from packaging before defrosting. Do not use foam trays and plastic wraps as they are not stable at high temperatures. Melting or warping may cause harmful chemicals to migrate to your food.
- ✓ Cook food immediately after defrosting in microwave because some areas of the frozen food may begin to cook during the defrosting process. Do not hold partially cooked food for use later.
- ✓ Cover foods with a lid or microwave-safe plastic wrap to hold in heat and moisture.

Containers and Wraps:

- ✓ Only use cookware that is specially manufactured for use in microwave ovens. Glass, ceramic, and all plastic containers should be labeled for microwave use.
- ✓ Plastic storage containers such as margarine tubs or take-out containers should not be used in the microwave. These containers can warp or melt, possibly causing harmful chemicals to migrate into food.
- ✓ Microwave plastic wraps, wax paper, cooking bags, parchment paper, and white microwave-safe paper towels should be safe to use.
- ✓ Never use thin storage bags, brown paper or plastic grocery bags, newspapers or aluminum foil in the microwave oven.

Slow Cookers and Food Safety

At any time of year, a slow cooker can make life a little more convenient because by planning ahead, you save time later. A slow cooker takes less electricity to use than a conventional oven. Winter is not the only time to think of using a slow cooker. In summer, using this appliance can avoid introducing extra heat from a hot oven into your kitchen.



Is a Slow Cooker Safe?

- Yes, the counter-top slow cooker cooks foods slowly at a low temperature, generally between 170° and 280° F. The low heat helps less expensive, leaner cuts of meat become tender and shrink less.
- The direct heat from the pot, lengthy cooking time, and steam created within the tightly covered container combine to make the slow cooker a safe process for cooking food.

Safe Beginnings:

- Keep perishable foods refrigerated until preparation time. You may want cut up meat and vegetables in advance and store them separately in the refrigerator.
- Constant refrigeration of ingredients assures that bacteria won't get a "head-start" during the first few hours of cooking.

Thaw Ingredients:

- Always thaw meat and poultry before putting it into a slow cooker.
- Choose to make foods with a high moisture content such as chili, soup, stew or spaghetti sauce.
- If using a commercially frozen slow cooker meal, prepare according to label instructions.

Use the Right Amount of Food:

- Vegetables cook more slowly than meat and poultry in a slow cooker, so if using mixed ingredients, start the vegetables first. Then add the meat and the desired amount of liquid, such as broth, water, or barbecue sauce.
- Keep the lid in place, removing only to check the food for doneness.

Settings:

- If possible, cook on the highest setting for the first hour of cooking time, then turn to low for the remainder of time.
- If leaving for the day, it is safe to cook foods on low the entire time.
- While food is cooking, and once it is done, food will stay safe as long as the cooker is operating.
- If the power goes out and you are not at home during the entire slow-cooking process, throw away the food even if it looks done.

Tips for Safe Grill Cooking

Cooking on an outdoor grill was once only a summer activity, but more Americans are grilling all year round. It's important to follow food safety guidelines that are specific to grilled foods.



- ✓ Completely and safely thaw meat and poultry before grilling so it cooks evenly.
- ✓ Meats can be marinated in the refrigerator up to 2 days.
- ✓ If some of the marinade is to be used as a sauce on the cooked food, reserve a portion of the marinade before putting on raw meat or poultry.
- ✓ If some of the marinade used on raw meat or poultry is to be reused, make sure to let the marinade come to a **boil** first to destroy any bacteria.
- ✓ Make sure you have clean platters and utensils. Don't put cooked meats on the same plate used for the raw meats.
- ✓ Precooking food partially in the microwave or stove is a good way of reducing grilling time. Make sure food goes immediately on preheated grill to complete cooking.
- ✓ Cook thoroughly using a food thermometer to temperatures outlined in the charts on pages 3 & 4.
- ✓ Keep cooked meats hot by setting them to the side of the grill rack or cooked meat can be kept hot in an oven set at approximately 200° F.
- ✓ Refrigerate leftovers promptly in shallow containers.
- ✓ Discard any food left out more than 2 hours (1 hour if outside temperatures are above 90° F).
- ✓ If using a smoker, the temperature in the smoker should be maintained at 250° to 300° F. for safety and use a food thermometer to be sure foods have reached a safe internal temperature.

Does Grilling Pose a Cancer Risk?

Some studies suggest there may be a cancer risk related to eating foods cooked by high-heat methods such as grilling and broiling. Based on present research findings, eating moderate amounts of grilled foods such as meat, poultry, and fish cooked **without charring** to a safe temperature does not pose a risk!

To prevent charring, remove visible fat that can cause flare-up. Precook as described above. Cook food in center of grill and move coals to side to prevent fat dripping on them. Cut off charred portions of meat.



Eggs—Safe Cooking

Eggs are a nutritious cost effective source of protein and iron for young children. Many cooking methods can be used to cook eggs safely, including poaching, hard cooking, scrambling, frying and baking.

To ensure safety:

- 👍 Egg must be cooked until the yolks are firm.
- 👍 Scrambled eggs should not be runny.
- 👍 Raw eggs and other ingredients, combined according to recipe directions, should be cooked immediately or refrigerated and cooked within 24 hours.
- 👍 Casseroles and other dishes containing eggs should be cooked to 160° F. as measured with a food thermometer in the center of the dish.
- 👍 Serve cooked eggs and dishes containing eggs immediately after cooking.
- 👍 If eggs crack during hard cooking, they are safe.
- 👍 **Never eat raw eggs.** This includes milk shakes with raw eggs, Ceasar salad dressing, Hollandaise sauce, homemade mayonaise, or any other recipe in which the raw egg ingredients are not cooked.
- 👍 If your recipe calls for uncooked eggs, make it safe by heating the eggs in one of the recipe's other liquid ingredients over low heat, stirring constantly, until the mixture reaches 160° F. as measured with a food thermometer.
- 👍 You may use commercially pasturized egg products when preparing recipes that call for raw or undercooked eggs.



Hard Boiling Eggs:

- Place eggs in a single layer in sauce pan and cover with at least 1 inch above the eggs with tap water.
- Cover pan, and bring to a boil.
- Upon boiling, remove pan from heat and allow eggs to stand in the hot water:
 - 12 minutes for medium eggs
 - 15 minutes for large eggs
 - 18 minutes for extra-large eggs
- Then place eggs in ice cold water until cooled. This last step prevents the yolks from turning green. Peel and serve immediately or refrigerate.

“Cook It Safe”

Preparing Pre-Packaged Food Safety Practices

Beginning in September 2011, the USDA began a campaign to raise awareness about the need to follow package instructions in order to fully cook pre-prepared foods and prevent foodborne illness.

The “Cook It Safe” campaign is designed to create awareness and correct misconceptions when cooking frozen or refrigerated convenience foods, which include all kinds of foods that are prepared for children, such as chicken nuggets.

1. Read and Follow Package Cooking Instructions

Frozen convenience foods may appear ready-to-eat and simply in need of being reheated. Yet many contain raw products that must be fully cooked before eating. Reading the product’s label will inform consumers whether the food needs to be reheated or thoroughly cooked. The package may state that the food should not be cooked in a microwave and these instructions must be followed to cook the food safely

If package instructions for microwave cooking call for covering or stirring the food or allowing for “stand time” do not ignore these steps, which contribute to even cooking. Covering the food traps moisture and raises temperature. Stirring food prevents cold spots where bacteria can survive. “Stand time”, the time between the removal of food from heat source and eating, allows the food to continue to “cook” for a few minutes. Skipping these key parts of cooking instructions may allow bacteria to survive.



2. Know When to Use a Microwave or Conventional Oven

It is important to use the appliance recommended on the food package instructions, whether those instructions call for cooking in a conventional oven, convection oven, toaster oven, or microwave. Package cooking instructions are calibrated for a specific type of appliance and may not be for all types of ovens.

Some convenience foods are shaped irregularly and vary in thickness, creating opportunities for uneven cooking in a microwave. Even microwaves with a turntable can cook unevenly and leave cold spots of uncooked foods. After cooking in any type of appliance, always use a food thermometer to be sure the food has reached the recommended safe temperature.

3. Know Your Microwave Wattage before Microwaving Food

If a microwave's wattage is lower than the wattage required in the food package cooking instructions, it will take longer than the instructions specify to cook the food to the safe internal temperature. The higher the wattage, the faster the microwave will cook food. If you don't know the wattage of your microwave, look inside the door, on the serial number plate, or in the owner's manual.



You can also test the time it takes your microwave to boil water to estimate the wattage. Measure one cup of plain tap water in a 2-cup glass measuring cup. Add lots of ice cubes and stir until the water is ice cold. Discard ice cubes and pour out extra water to leave just one cup. Set the microwave on high for four minutes and watch the water through the window to see when it boils

- If water boils in less than 2 minutes, it is a very high wattage microwave of 1000 watts or more.
- If water boils in about 2½ minutes, it is a high wattage microwave of about 800 watts or more.
- If water boils in 3 minutes, it is an average wattage microwave of about 650 to 700 watts.
- If water boils in more than 3 minutes or not by 4 minutes, it is a slow microwave of 300 to 500 watts.

For high wattage microwaves, use the minimum recommended cooking time on the package instructions; use the maximum cooking time for slow microwaves. The minimum cooking time may need to be reduced for very high wattages. When the microwave signals the end of the cooking time, use a food thermometer to check the internal temperature of the food.

4. Always Use a Food Thermometer to Ensure a Safe Internal Temperature

To be sure that food has reached a temperature high enough to kill any bacteria that may be present, use a food thermometer and check the food in several places. This applies when cooking in any type of heat source! Checking for the safe internal temperature ensures that harmful bacteria will be killed. Use the charts on page 3 and 4 for the minimum safe internal temperature for various foods.



Reheating methods for leftovers:

- Use stove top, oven (set no lower than 325° F.), or microwave to reheat to the safe internal temperature of 165° F.
- Do **not** use a slow cooker or chafing dish as food may stay too long at unsafe temperatures where bacteria can multiply.



Yours for Children, inc.

303 - 313 Washington Street
Auburn, MA 01501
1-800-222-2731
www.yoursforchildren.com

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Cooking Food Safely
February 2012

TO:

Required Training
FY 2012



Cooking Food Safely

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