

Cooking Safely in the Microwave



Microwaving has become a standard part of many households. Over 90% of American homes have microwave ovens for meal preparation. However, care must be taken when cooking or reheating meats, poultry, fish, and eggs to make sure they are prepared safely.

Microwave Oven Cooking

- Arrange food items evenly in a covered dish and add some liquid if needed.
- 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 outer areas.
- Stir or rotate food midway through the microwaving time to eliminate cold spots where harmful bacteria can survive.
- When you partially cook food in the microwave oven, then finish cooking it on the grill or in a conventional oven, it is important to transfer the microwaved food to the other heat source immediately. Never partially cook food and store it for later use.
- Use a food thermometer or the oven's temperature probe to verify the food has reached a safe minimum internal temperature. Cooking times may vary because ovens vary in power and efficiency. Always allow standing time, which completes the cooking, before checking the internal temperature with a food thermometer.
- Cooking whole, stuffed poultry in a microwave oven is not recommended. The stuffing might not reach the temperature needed to destroy harmful bacteria.

Cooking Temperatures



- Cook foods to the following safe minimum internal temperatures:
- Beef, veal, and lamb steaks, roasts, and chops may be cooked to 145 °F.
- All cuts of pork to 160° F.
- Ground beef, veal and lamb to 160° F.
- Egg dishes, casseroles to 160° F.
- Leftovers to 165° F.
- Stuffed poultry is not recommended. Cook stuffing separately to 165° F.
- All poultry should reach a safe minimum internal temperature of 165° F.

Tips on Safe Microwave Oven Operation

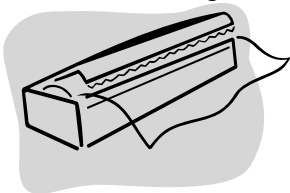
- Follow the manufacturer's instruction manual for recommended operating procedures and safety precautions for your oven model.
- Don't operate an oven if the door does not close firmly or is bent, warped, or otherwise damaged.
- Never operate an oven if you have reason to believe it will continue to operate with the door open.
- To add to the margin of safety already built into the oven, don't stand directly against an oven (and don't allow children to do this) for long periods of time while it is operating.
- Users should not heat water or liquids in the microwave oven for excessive amounts of time.
- Some ovens should not be operated when empty. Refer to the instruction manual for your oven.
- Clean the oven cavity, the outer edge of the cavity, and the door with water and a mild detergent. A special microwave oven cleaner is not necessary. Do not use scouring pads, steel wool, or other abrasives.

Microwave Defrosting

- Remove food from packaging before defrosting. Do not use foam trays and plastic wraps because they are not heat stable at high temperatures. Melting or warping may cause harmful chemicals to migrate into food.
- Cook meat, poultry, egg casseroles, and fish immediately after defrosting in the microwave oven because some areas of the frozen food may begin to cook during the defrosting time. Do not hold partially cooked food to use later.
- Cover foods with a lid or a microwave safe plastic wrap to hold in moisture and provide safe, even heating.
- Heat ready-to-eat foods such as hot dogs, luncheon meats, fully cooked ham and leftovers until steaming hot.
- After reheating foods in the microwave oven, allow standing time. Then, use a clean food thermometer to check that food has reached 165 °F.

Containers & Wraps

- Only use cookware that is especially manufactured for use in the microwave oven. Glass, ceramic containers, and all plastics should be labeled for microwave oven use.
- Plastic storage containers such as margarine tubs, take out containers, whipped topping bowls, and other onetime use containers should not be used in microwave ovens. These containers can warp or melt, possibly causing harmful chemicals to migrate into the food.



- Microwave plastic wraps, wax paper, cooking bags, parchment paper, and white microwave safe paper towels should be safe to use. Do not let plastic wrap touch foods during microwaving.
- Never use thin plastic storage bags, brown paper or plastic grocery bags, newspapers, or aluminum foil in the microwave oven.

Adapted from USDA Food Safety and Inspection Service

University of Arkansas, United States Department of Agriculture, County Governments Cooperating

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