



Know Ins and Outs of Microwaves for Safe Cooking

Microwaves may seem like the easiest cooking mechanisms to use, but there are many important facts about microwaves to know before cooking in them.

It is safe to cook food in a microwave, but the food can cook unevenly. Use a food thermometer in several places in the food, the thickest areas of meat and poultry not near fat or bone, to make sure it has reached the recommended temperature for destroying bacteria and other pathogens potentially causing food borne illness. Here are the recommended temperatures for safely microwaving food:

- Ground meats: 160 degrees
- Poultry: 165 degrees
- Beef, veal and lamb: 145 degrees
- Cuts of fresh pork: 160 degrees
- Eggs and casseroles with eggs: 160 degrees
- Fish: 145 degrees

Always allow standing time before checking the temperature because standing time completes cooking.

Certain containers and wraps are safe for microwave use, but others are not. Only use cookware that is labeled safe for microwave use. General items safe for microwave use include:

- heat-proof glass
- ceramic glass
- oven cooking bags
- straw and wood baskets for quick warm-ups
- white, unprinted paper plates, towels, napkins and bags
- wax paper, parchment paper and heavy plastic wrap
- heat-susceptor packaging

General items not safe for microwave use include:

- cold storage containers such as yogurt cartons and margarine tubs
- metal pans

- metal twist-ties on package wrapping
- brown paper bags and newspapers
- foam-insulated cups, bowls, plates or trays
- china with metallic paint or trim
- Chinese take-out containers with metal handles
- food completely wrapped in aluminum foil

When microwaving foods, place food items evenly in a covered dish with some liquid, if needed. For large pieces of meat, debone because bone can keep meat from cooking thoroughly. Microwaves penetrate food at a depth of 1 to 1.5 inches, but they don't even reach the center of thicker pieces of food. The center cooks by heat conducted from the outside of the food into the middle.

Make sure the dish is covered with a lid or plastic wrap. Keep enough space between the food and the top of the dish. Make sure the lid can vent because moisture created helps destroy bacteria and also helps ensure even cooking. After the food has been in the microwave for about half the time, stir or rotate the food, even if the microwave has a turntable, to even the cooking and make sure cold spots are destroyed. Use the cooking instructions or recipe instructions for the cooking time. Start with the lowest amount of time and add time if needed to reach a safe temperature.

To thaw frozen food in a microwave, remove the food from its package and make sure not to use foam trays and plastic wraps. Choose the defrost setting, or 30 percent power, and rotate food when possible. Once defrosted, cook the food immediately because some areas may begin to cook during the defrosting time. Don't partially cook food in a microwave and then store it to use at a later time because any bacteria there wouldn't have been destroyed.

To safely reheat cooked foods, cover them with a lid or microwave-safe plastic wrap to maintain moisture and ensure even heating, and turn back a corner to allow steam to vent. Hot dogs, luncheon meats, fully cooked ham and leftovers should be heated until steaming hot. Allow standing time after reheating and then use a clean thermometer to make sure the food is 165 degrees.