

# Cooking to Proper Temperatures in Microwave Ovens



Today, microwave ovens are found in 90 percent\* of American kitchens. Because so many households use microwave ovens daily to prepare foods, it is important to know some cooking basics to ensure food safety. As with all cooking methods, the only way to ensure that food is cooked to the correct temperature is to use a food thermometer.

## How to Know When Food is Fully Cooked and Safe to Eat

Microwave ovens are used to reheat leftovers, cook food and to defrost frozen foods. Regardless of whether you are cooking a food for the first time or reheating leftovers, be sure to use a food thermometer in several places to verify the internal temperature, as it is the best way to ensure the food is hot enough to destroy any harmful bacteria that may be present. For example, frozen meals should not be eaten (even a bite or two) until they are cooked thoroughly.

\*[http://www.fsis.usda.gov/factsheets/microwave\\_ovens\\_and\\_food\\_safety/index.asp](http://www.fsis.usda.gov/factsheets/microwave_ovens_and_food_safety/index.asp)

When cooking prepared food in the microwave, follow the cooking instructions on the package closely as these steps are all important to ensure food safety. Frequently, the cooking instructions will include:

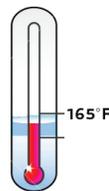


✓ Stir Step. Stirring food midway through the microwaving time promotes even cooking and helps to eliminate possible cold spots where harmful bacteria can survive.



✓ Stand or Rest Step. Allowing the food to “rest” or “stand” allows for the cooking time to be completed. During this time, the temperature of the food can rise several degrees.

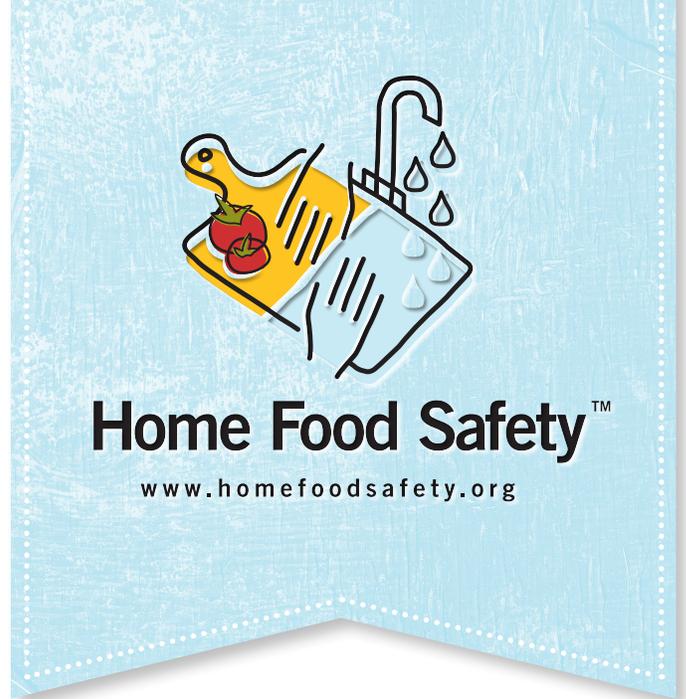
## Recommended internal temperature.



A common guide is to reach an internal temperature of 165°F. To test the temperature of the meal, start by placing the tip of a food thermometer in the thickest part of the food you are preparing to eat. Be sure to take the temperature in several locations. Temperatures within the food may vary because microwaves may not heat evenly.



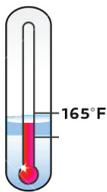
# Cooking Safely with Microwave Ovens



## Safe Microwave Defrosting, Cooking and Reheating of Food



- ✓ Thaw food using the defrost button on your microwave.
- ✓ Remove food from packaging before defrosting. Do not use foam trays and plastic wraps because they are not heat stable at high temperatures.
- ✓ Cook meat, poultry, egg casseroles and fish immediately after defrosting in the microwave oven. During defrosting in the microwave, food heats up and can cause bacteria that may be present to start multiplying.
- ✓ Cover foods with a lid or a microwave-safe plastic wrap to hold in moisture and provide safe, even heating.
- ✓ After reheating foods in the microwave oven, allow the food to “stand.” Then, use a clean food thermometer to check that food has reached 165°F.



## Microwave-Safe Containers & Wraps

- ✓ Only use cookware that is specially 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 and other one-time use containers should not be used in microwave ovens. These containers can warp or melt, possibly causing harmful chemicals to migrate into the food.

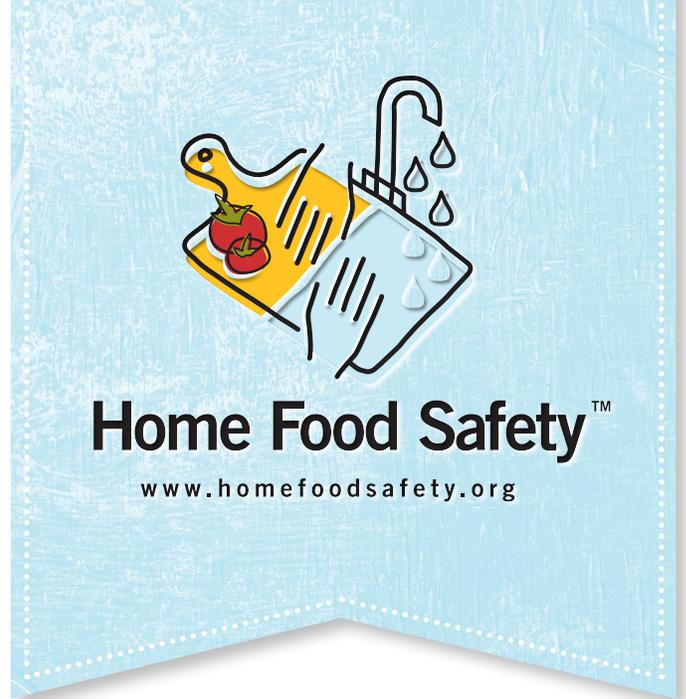
- ✓ Microwave plastic wraps, wax paper, cooking bags, parchment paper and white microwave-safe paper towels should be safe to use. Do not let plastic wrap touch foods during microwaving.



- ✓ Never use thin plastic storage bags, brown paper or plastic grocery bags, newspapers or aluminum foil in the microwave oven.



# Know Your Microwave



Microwave ovens are very convenient. However, it's important to recognize that the differences among microwave ovens will affect the cooking time. As with all cooking methods, the only way to ensure that food is cooked to the correct temperature is to use a food thermometer.

## How do microwave ovens cook food?



Microwave energy is generated by the microwave oven and this energy is absorbed by the food. This causes the molecules in the food to vibrate and create friction. The vibrations generate heat and this is what cooks the food.

## Knowing the wattage of your microwave oven is important.

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The wattage of your microwave oven influences cooking times. The higher the wattage of a microwave oven, the faster food will cook.

## What if I don't know my microwave oven's wattage?

There are multiple resources to determine the output wattage of your microwave oven.

- ✓ The instruction manual that comes with your unit will have the wattage information.
- ✓ Some microwaves have a sticker or label inside the door that give the wattage.
- ✓ [www.microwaveovenfacts.com](http://www.microwaveovenfacts.com) lists wattages by brands and models.
- ✓ Contacting the manufacturer or checking the manufacturer's website is always an option.

