

Keeping Food Safe: Choosing and Using Food Thermometers in Homes¹

Claudia L. Peñuela, Amy Simonne, and Isabel Valentin-Oquendo²

At-home Cooking Requires Measuring More than Just the Ingredients

Proper cooking of foods to safe internal temperatures is one of the most effective ways to prevent foodborne illnesses. Several types of food thermometers are available for purchase, and choosing the right one when cooking at home will help to keep food safe for your family. This publication provides specific information on how to use different thermometers in different foods.

Where to Start

Using the right thermometer in the right part of the food is crucial to ensuring a correct temperature reading. Table 1 presents the most common thermometers and methods for use. Always follow the manufacturer's directions.

“Well, it looks done...”

Measuring food temperature with a food thermometer is the only way of knowing if your food has reached a safe internal temperature. *Color of meat is not a reliable indicator of doneness.* The meat may have not reached the proper temperature, or it may even be overcooked. This is why it is important to use a thermometer designed for

the job—instead of relying only on our eyes. Food can be cooked to doneness and still be juicy and flavorful... **and** safe to eat! Here are a few recommendations for measuring the temperature in different foods.

Thin meat: patties, chicken breasts, and pork chops

- If possible, use a thermistor and insert it in the thickest part, away from bone and fat.
- If you are using a bimetal thermometer, insert it 2 to 3 inches, which is usually the full length of the sensing area.

Thick meat: beef, lamb, or pork roasts

- Insert the thermometer midway through the center of the roast, away from the bone.
- For irregularly shaped foods, check the temperature in different places.

Poultry

- **Whole:** Insert the thermometer into the thickest part of the thigh, away from the bone. While the “pop-up” style devices now common in whole poultry products may be considered reliable as doneness indicators, using a

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2. Claudia L. Peñuela, EFNEP assistant in nutrition; Amy Simonne, professor; Isabel Valentin-Oquendo, former assistant in FNP; Department of Family, Youth and Community Sciences; Institute of Food and Agricultural Sciences; University of Florida; Gainesville, FL 32611.

conventional meat thermometer as an additional tool is a good practice to ensure safe internal temperature.

- **Stuffed:** The center of the stuffing should be checked and its temperature must reach 165°F.
- **Parts such as legs:** Insert into the thickest part of the meat while avoiding the bone. For irregularly shaped parts, check temperature in multiple locations. In addition, thermometers may need to be inserted sideways to get an accurate reading.

Combination dishes, casseroles, soups

- Insert the thermometer into the thickest part of the dish or the center.
- Check temperature of egg dishes and dishes with ground meat and poultry in several locations.

Safe Minimum Internal Temperatures

Conclusion

- Cook food to the right temperature using a food thermometer.
- Use the right thermometers for the right foods.

References

United States Department of Agriculture, Food Safety and Inspection Service, Appliances & Thermometer. *Use A Food Thermometer*. http://www.fsis.usda.gov/Fact_Sheets/Use_a_Food_Thermometer/index.asp. Accessed January 12, 2011.

United States Department of Agriculture, Food Safety and Inspection Service. *Kitchen Thermometers*. http://www.fsis.usda.gov/Fact_Sheets/Kitchen_Thermometers/index.asp#12. Accessed January 12, 2011.

Table 1. Common food thermometers and how to use them





Type of Thermometer		Placement and Duration	Considerations
Dial	Instant-read, bimetal  <p>Credits: Tyler Jones</p>	2–2½ inches into the thickest parts of food 15–20 seconds	<ul style="list-style-type: none"> • Used for roasts and casseroles • Can be used for thin foods if inserted sideways into the food through the center • Use near the end of cooking • Not designed to stay in the food while it's cooking
	Oven-safe, bimetal  <p>Credits: iStockphoto</p>	2–2½ inches into the thickest parts of food 1–2 minutes	<ul style="list-style-type: none"> • Used for thick foods (roasts) / deep-dish foods (casseroles) • Not for thin foods (less than 3 inches thick) • Temperature should be tested in more than one place • Designed to stay in food during cooking
Digital	Thermistor  <p>Credits: © Ryan McVay</p>	At least ½ inch into food 10 seconds	<ul style="list-style-type: none"> • Can be used for thick or thin foods • Some can be calibrated • Use near end of cooking time • Not designed to stay in the food while it's cooking
	Thermometer-fork Combination  <p>Credits: Tyler Jones</p>	At least ¼ inch into thickest parts of food 2–10 seconds	<ul style="list-style-type: none"> • Proper for most foods • Cannot be calibrated • Convenient for grilling or oven-cooking • Use near end of cooking time • Not designed to stay in the food while it's cooking

Table 2. Safe minimum internal temperatures for your home-cooked foods

°F	Food
165°F	<ul style="list-style-type: none"> • Poultry (whole, pieces, and ground) • Stuffing • Combined dishes and leftovers • Food cooked in microwave
160°F	<ul style="list-style-type: none"> • Ground beef, pork, veal, and lamb • Egg dishes
145°F	<ul style="list-style-type: none"> • Beef, pork*, veal, and lamb (steaks, roasts, and chops) • Fish

*Whole cuts of pork (e.g., roasts, loins, chops) also need a 3-minute rest time after removal from the heat source. During these three minutes, the meat's internal temperature remains constant or continues to rise, which destroys harmful bacteria.

Source: FoodSafety.gov