Food Safety and You:
CHOOSE THE THERMOMETER THAT IS RIGHT FOR YOU

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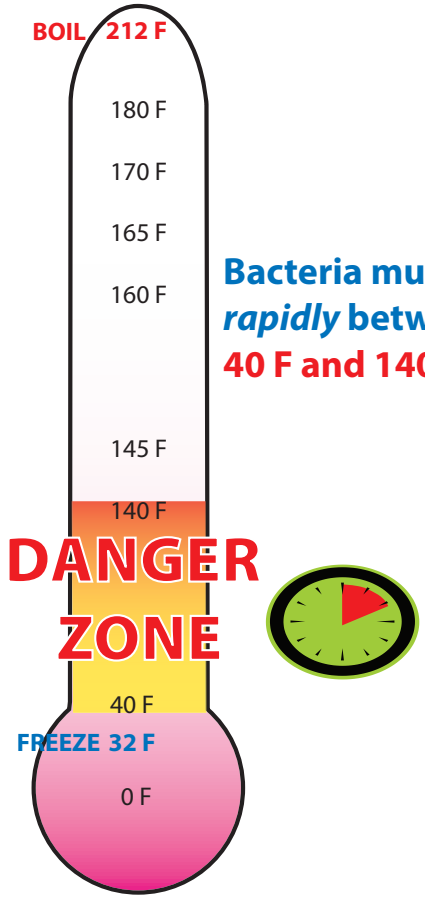
Why use a thermometer to keep food safe?

- One of the critical factors to control harmful bacteria in food is controlling temperature.
- We often refer to it simply as "keep hot foods hot and cold foods cold."
- Harmful bacteria multiply rapidly in the temperature "danger zone" between 40 and 140 degrees Fahrenheit.
- The only way to know the accurate temperature is to use a thermometer.
- There are different types of thermometers for different tasks.



Bacteria multiply *rapidly* between 40 F and 140 degrees F

Thermistor-style food thermometer

- Also known as tip-sensitive thermometer.
- Contains a semiconductor in the tip to measure temperature.
- Takes roughly 10 seconds to show the accurate temperature on the digital display.
- Can measure the temperature of thin foods and thick foods. Place at the thickest part.
- Some models can be calibrated, some cannot. Check manufacturer's instructions.
- Can be used for meat, poultry and egg dishes or combination dishes, such as casseroles.
- Not designed to remain in the food during cooking.

"Oven-safe" dial thermometer

- Designed to remain in the food while it is cooking in the oven.
- Normally used for large foods, such as turkeys.
- Constantly shows the temperature of the food while it is cooking.
- Some models can be calibrated, some cannot.
- If not left in the food while cooking, they can take as long as 1 to 2 minutes to read the correct temperature.

Infrared thermometer

- No direct contact with foods. Reduce risk of cross-contamination.
- Fast results.
- Only measures surface temperatures and not internal temperatures.
- Often used to measure temperatures of cooking surfaces, for example, measuring the pan temperature before searing a steak.
- Cannot be calibrated.
- Not accurate when there is smoke, fog or steam, or when the background temperature is too high.

Oven thermometer

- Can be left in the oven to verify that the oven is heating to the desired temperatures.
- Test your oven temperature periodically.

Refrigerator or freezer thermometer

- It is important to monitor the temperature of refrigerators and freezers.
- Refrigerators should maintain a temperature of 40 F or below. Freezers should maintain a temperature of 0 F or below.
- Critical in a power outage. When the power comes back on, if the refrigerator or freezer is 40 F or below, the safety of food may not be affected.

References

United States Department of Agriculture Food Safety and Inspection Service (USDA-FSIS). 2011. Kitchen Thermometers.

United States Department of Agriculture Food Safety and Inspection Service (USDA-FSIS). 2013. Thermometers & Food Safety.

United States Department of Agriculture Food Safety and Inspection Service (USDA-FSIS). 2013. Thermy: Types of Food Thermometers.

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