



Subject: **USING AND CALIBRATING THERMOMETERS**

PURPOSE: To prevent foodborne illness by ensuring that the appropriate type of thermometer is used to measure internal product temperatures and that thermometers used are correctly calibrated for accuracy.

SCOPE: This procedure applies to food service employees who prepare, cook and cool food.

KEY WORDS: Thermometers, Calibration

INSTRUCTIONS

Train food service employees on using the following procedures:

1. Follow the food thermometer manufacturer's instructions and selected calibration method. Use a food thermometer that measures temperatures from 0°F (-18°C) to 220°F (104°C) and is appropriate for the temperature being taken.
2. Have food thermometers easily accessible to food service employees during all hours of operation.
3. Clean and sanitize food thermometers before each use. Refer to Food and Nutrition Procedures [H-4](#) & [H-14](#)
4. Store food thermometers in an area that is clean and not subject to contamination.

Note: Replacement thermometers may be requested in writing through the food service supervisor.

MONITORING

1. Food service employees will use either the ice-point method or boiling-point method to verify the accuracy of food thermometers. This is known as calibration of the thermometer.

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HOW TO CALIBRATE THERMOMETERS

Thermometers must be calibrated everyday to ensure that product temperatures are correct.

Ice Point Method (this method is more accurate and easier to do):

- A. Fill a large glass with crushed ice. Add clean tap water until the glass is full and stir well.
- B. Put the thermometer stem or probe in the ice water mixture so that the entire sensing area is submerged. Do not let the stem of the thermometer or probe touch the sides or bottom of the glass. Wait at least 30 seconds or until indicator stops moving.
- C. With the stem of the thermometer or probe still in the ice water mixture, use a wrench to turn the adjusting nut until the thermometer reads 32°F (0°C). If calibrating a digital thermometer, press the reset button to automatically calibrate the thermometer. [\(Click to view\)](#)

2. Food service employees will check the accuracy of the food thermometers:

- at regular intervals (at least once per week)
- if dropped
- if used to measure extreme temperatures, such as in an oven
- whenever accuracy is in question

CORRECTIVE ACTION

1. Retrain any food service employee found not following the procedures.
2. For an inaccurate, bimetallic, dial-faced thermometer, adjust the temperature by turning the dial while securing the calibration nut (located just under or below the dial) with pliers or a wrench.
3. For an inaccurate, digital thermometer with a reset button, adjust the thermometer according to manufacturer's instructions.



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4. If an inaccurate thermometer cannot be adjusted on-site, discontinue using it and follow manufacturer's instructions for having the thermometer calibrated. Discard thermometers that can not be repaired.

VERIFICATION AND RECORD KEEPING

The food service manager/satellite assistant will verify that foodservice employees are following this procedure by visually observing employees during all hours of operation. The food service supervisor will review the [HACCP Food Safety Checklist](#) to verify that monitoring is being conducted. The [HACCP Food Safety Checklist](#) is to be kept on file for a minimum of five (5) years.

For Action By: Principals, Food Service Managers, Satellite Assistants and All Food Service Employees

Refer Questions to: Department of Food and Nutrition

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