

No Time To Teach

Hot and Cold: The Importance of Temperature in Foodservice

Lesson Participants: School Nutrition Employees

Type of Lesson: Face-to-face teaching session

Objective: For school nutrition employees to be able to take active steps to reduce the amount of time food is held in the temperature danger zone.

Materials Needed:

- Presenter's Script
- Pens or Pencils (one for each employee)
- Copies of posters
- Handouts: Food Safety Fact Sheet (one for each employee)
- Copies of continuing education certificate for each participant (see page 10 of this lesson)



Presenter's Script:

Introduction (2 minutes)

Temperature maintenance of food and equipment is very important for food safety. We know that bacteria grow very rapidly between 41 °F and 135 °F—the temperature range known as the temperature danger zone. At every step from receiving to serving, it is important to limit the time that food is in the temperature danger zone.

At the end of the lesson, you should be able to take active steps to reduce the amount of time food is held in the temperature danger zone.

SAY: Let's begin by reviewing the temperature danger zone.

DO: Show the *Keep Hot Foods Hot! Keep Cold Foods Cold!* mini-poster.

SAY: The temperature danger zone is the temperatures between 41 °F and 135 °F. This is the temperature range in which bacteria multiply most rapidly. If food is held in the temperature danger zone for too long, bacteria counts can grow high enough to cause a foodborne illness. That is why foodservice employees take active steps to reduce the amount of time food is held at these temperatures.

SAY: Let's review the temperatures on the temperature mini- poster.

Q. What is the low and high temperature in the temperature danger zone?

A. 41 °F to 135 °F

Q. What is the temperature for holding foods?

A. 41 °F or below

Temperature danger zone (8 minutes)

SAY: It is important to keep food safe when stored in the refrigerator. Let's review some ways that will help ensure safe food during refrigeration.

DO: Show the mini-poster *Refrigerate for Safety*

SAY: Refrigerated food should be stored at 41 °F or below. Temperatures of the refrigerator and food should be checked and documented routinely.

DO: Show the mini-poster *On the Serving Line*

SAY: At the serving step, hot food should be kept at 135 °F or above and cold food should be kept at 41 °F or below. Cooling and reheating should be done as quickly as possible to limit the time that the food is in the temperature danger zone.

Temperature is even important in clean up! Water temperature is important when washing, rinsing, and sanitizing dishes.

Practice Application (5 minutes)

SAY: Checking the temperature of food and the temperatures of equipment is important. During the next week, let's practice taking and recording temperatures in the kitchen. We want to be sure the foods we are storing and serving to students is held safely. Go through the kitchen and use *the Daily Production Record* to record temperatures of the food in the areas listed. Compare the temperature you record to the safe temperature range given. How are we doing? It takes all of us to keep food safe and out of the temperature danger zone.

DO: Show the sections of the Daily Production Record and the Temperature Monitoring Logs from the HACCP Plan and explain how to use these to employees. Refer to the instructions for each of the documents.

(Note to presenter: the five minutes listed here does not include the practice time to record temperatures on the daily production record and equipment logs and the follow up time to check employees for compliance. Monitor employee recording on the production record and logs and coach for compliance as needed.)

Continuing Education Documentation:

DO: Complete the Continuing Education report at the end of this lesson, obtain participant signatures, and file in *HACCP Part 4: Continuing Education and Professional Development*.

Provide each participant with a copy of the certificate of completion attached to this lesson. Remind participants to update their professional development log as required by the School Nutrition Administrator so that compliance with the USDA Professional Standards Rule is adequately documented.

**Keep
Hot Foods
HOT!**
**Keep
Cold Foods
COLD!**



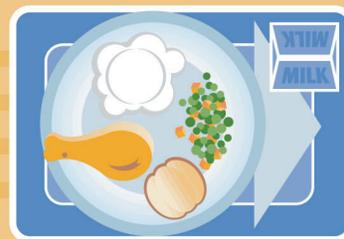
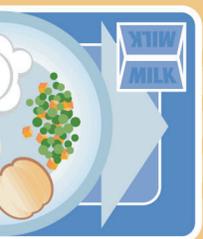
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On the Serving Line

- **Check and maintain proper temperatures.**
(hot foods 135°F or above; cold foods 41°F or below)
- **Cover food between serving periods.**
- **Place pans of food in a single layer on the steam table.**
- **Keep serving area clean, and wipe up spills promptly.**



Refrigerate for Safety!

**Cover, label, and
date all items.**

**Hold cold food
at 41°F or below.**

**Store raw meat
on bottom shelf
away from other food.**

**Check and log
temperatures frequently.**

CLOSE THAT DOOR!





Food Safety Fact Sheet

2009

Temperature Danger Zone

Introduction

The temperature danger zone is the temperature range in which microorganisms grow quickly and sometimes reach levels that can make people ill. School nutrition employees must maintain appropriate temperatures throughout the food process, from receiving, until the food is served to children. Temperature control is a key component of a school food safety program.

Here Are the Facts

The *FDA Food Code* has identified the temperature danger zone as 41 °F–135 °F.

The saying “Keep hot food hot and cold food cold” is based on the importance of keeping food out of the temperature danger zone. In other words, cold foods must be kept at 41 °F or below and hot foods must be kept at 135 °F or above. It is important to limit the amount of time that foods served cold or hot are in the range of 41 °F to 135 °F.

Application

Remember to:

- Cook, hold, serve, and chill foods at proper temperatures.
- Use a clean, sanitized, and calibrated thermometer to take food temperatures.
- Record temperatures.
- Maintain temperature logs.



Food Safety Mini-Posters: Keep Hot Foods Hot! Keep Cold Foods Cold! (2000).



Maintain temperatures at each operational step in the flow of food from receiving to storing.

- **Receiving**—Receive refrigerated foods at 41 °F or below, and frozen foods at 32 °F or below.
- **Storing**—Store refrigerated foods at 41 °F or below, and store frozen foods at 0 °F or below.
- **Preparing**—Limit the time that food is in the temperature danger zone during preparation. Batch cooking is the best way to limit time.
- **Cooking**—Cook food to the appropriate temperature for that item.
- **Holding**—Hold cold foods at 41 °F or below and hot foods at 135 °F or above.
- **Serving**—Serve cold food cold and hot food hot. Keep cold food below 41 °F and hot food above 135 °F.
- **Cooling**—Cool foods as quickly as possible. The *FDA Food Code* requires that foods be cooled from 135 °F–70 °F within 2 hours and from 70 °F–41 °F within an additional 4 hours. If food is not cooled from 135 °F–70 °F within 2 hours, the food must be reheated to 165 °F for 15 seconds and the cooling process started over. Take actions to speed the cooling process such as dividing food into smaller portions, using ice water baths, using an ice paddle, and stirring.
- **Reheating**—Reheat all leftover foods to 165 °F for 15 seconds within 2 hours.
- **Transporting**—Transport cold foods cold at 41 °F or below, and hot foods hot at 135 °F or above.

Remember, follow state or local health department requirements.

References

- U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2000). *Food safety mini-poster: Keep hot foods hot! Keep cold foods cold!* Retrieved January 8, 2009, from <http://www.nfsmi.org/documentLibraryFiles/PDF/20080201014729.pdf>
- U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2005). *Thermometer information resource*. University, MS: Author.
- U.S. Department of Health and Human Services, Food and Drug Administration, & National Food Service Management Institute. (2002; Rev. ed. 2009). *Serving it safe (2nd ed.)*. University, MS: Author.
- U.S. Department of Health and Human Services Public Health Services, Food and Drug Administration. (2005). *FDA food code*. Retrieved January 8, 2009, from <http://www.cfsan.fda.gov/~dms/fc05-toc.html>

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FOOD SAFETY AND HACCP CONTINUING EDUCATION REPORT

(Complete this report and File in HACCP Part 4: Continuing Education and Professional Development)

LESSON TITLE: No Time To Teach: Hot and Cold - The Importance of Temperature in Foodservice

DATE: _____

LOCATION: _____

INSTRUCTOR: _____

Lesson Agenda/Outline is attached: **Yes** **No**

PARTICIPANT NAME	SCHOOL

Certificate of Participation

This is to certify that

completed the

School Nutrition Services

No Time to Teach Lesson:

**Hot and Cold: The Importance of
Temperature in Foodservice**

providing $\frac{1}{4}$ hour of continuing education
credit for the School Nutrition Area of

**Food Safety and HACCP: 2620 Food Safety-
General**

Signature of Presenter

Date