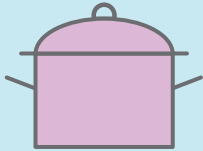




SUMMER MEALS

FOOD SAFETY

t r a i n i n g g u i d e



This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service through an agreement with the Institute of Child Nutrition at The University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

The University of Mississippi is an EEO/AA/TitleVI/Title IX/Section 504/ADA/ADEA Employer. In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. To file a complaint of discrimination, write USDA, Director, Office of Civil Rights; Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

© 2016, Institute of Child Nutrition, The University of Mississippi, School of Applied Sciences

Except as provided below, you may freely use the text and information contained in this document for non-profit or educational use with no cost to the participant for the training providing the following credit is included. These materials may not be incorporated into other websites or textbooks and may not be sold. The photographs and images in this document may be owned by third parties and used by The University of Mississippi under a licensing agreement. The University cannot, therefore, grant permission to use these images.

For more information, please contact helpdesk@theicn.org.

12/2016

INTRODUCTION

Happy Summer! This *Summer Meals Food Safety Training Guide* is a resource you can use to train your staff on important food safety practices that help keep food safe for the children you are feeding. Site managers can use this guide as a reference with food safety reminders and best practices. Each page has quick information on different topics that assist you in training your staff. A list of additional resources available from the Institute of Child Nutrition can be found in the back of the training guide. The information presented in this training guide may or may not apply to all summer meals sites, so adapt it to your summer meals program as applicable. The three sections in the training guide promote key food safety practices essential to a successful summer meals site

- Practicing good personal hygiene.
- Checking and documenting food safety temperatures.
- Proper cleaning and sanitizing.

These practices help ensure that the food children consume is safe and reduce the risk of a **foodborne outbreak**. A foodborne outbreak at a summer meals site could result in multiple children and staff becoming sick, bad publicity, and possibly cause the shutdown of the site. The three sections are color coordinated for ease of reference: **good personal hygiene (blue)**, **food safety temperatures (red)**, and **cleaning and sanitizing (green)**. Bolded words are defined in the Glossary in the back of this training guide.

NOTE: Navigating this training guide is easy, though it isn't traditional. Just follow the page numbers.

PERSONAL HYGIENE

Personal hygiene is especially important for keeping food safe. This includes restricting or excluding ill staff from preparing or handling food, using effective handwashing procedures, and eliminating bare hand contact with ready-to-eat foods. Using all three practices together will help prevent **foodborne illness** at a summer meals site. Each practice will be covered more in the following pages.

Good personal hygiene begins with arriving to a summer meals site properly dressed. This minimizes possible contamination from dirty clothes or people. When working for a summer meals site, follow these guidelines for proper attire.

Come to the site dressed in clean clothes.

Wear close-toed shoes.

Restrain your hair with a hat or hairnet.

Trim nails short, and do not wear nail polish.

Do not wear jewelry.

Follow any guidance from the local health authority regarding proper attire.

EMPLOYEE HEALTH

If you are sick, you may spread your illness to those around you (staff, children). Site staff should tell the site manager if they are sick.

Report these illness symptoms ➡ •

If you experience any of these symptoms you should not work at the site to prevent the risk of spreading disease through food.

Vomiting

Diarrhea

Sore throat with fever

Jaundice (yellowing of the skin and eyes)

Open cuts, sores, or wounds

Foodborne illness diagnosed by doctor

HOW TO WASH HANDS

Keeping hands clean is one of the most important steps you can take to avoid spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean, running water. Follow these steps for proper handwashing ➡ •

Proper handwashing should take a total of about 20 seconds or as long as it takes to sing the “Happy Birthday” song twice.

Washing hands with soap and water is the **best** method for reducing the number of microbes on hands. If soap and water are not available, the CDC recommends using an alcohol-based hand sanitizer that contains at least 60% alcohol.

- 1 Wet hands with water and soap.**
- 2 Lather hands with soap up to elbows and scrub for 10-15 seconds.**
- 3 Wash backs of hands, wrists, between fingers, and under fingernails.**
- 4 Rinse hands under running water.**
- 5 Dry hands with paper towel(s) or air dryer.**
- 6 Turn off water with paper towel(s). If applicable, open the door with the paper towel, and then discard it into trashcan.**

WHEN TO WASH HANDS

There are certain times that staff should wash their hands.

BEFORE

- Working with food
- Putting on or changing disposable gloves
- Handling clean dishes, equipment, and utensils

AFTER

- Using the toilet
- Sneezing, coughing, or using a handkerchief or tissue
- Touching hair, face, or body
- Handling raw meats, poultry, or fish
- Eating, drinking, or chewing gum
- Cleaning up — sweeping, mopping, or wiping counters
- Touching dirty dishes, equipment, or utensils
- Handling trash
- Handling phones or cell phones
- Handling cash registers or money
- Any instance in which hands have become contaminated

PORTABLE HAND WASHING STATION

It is important to create a source of running water when program sites do not have handwashing facilities. A portable handwashing station allows you to wash hands when there is no working sink on-site. These facilities should be used primarily for handwashing. You can create a portable handwashing station like the one shown in the photo.

5 Gallon Thermal Container

Water

Continuous Flow Spigot

Soap

Paper Towels

Discard Bucket



PROPER GLOVE USE

Properly wearing gloves can prevent contaminating food. Glove use **protects food** from microbes found on people's hands. Handling something, other than food, with gloved hands such as a cell phone, door handle, refrigerator door, etc., can contaminate gloves. Remove contaminated gloves, and wash your hands before putting on new gloves. Follow these tips to ensure that you are using gloves properly.

If you do not have gloves, you can still protect ready-to-eat food from hand contamination by using suitable utensils such as spatulas, tongs, or deli tissue.

Always wash hands before putting on gloves.

Wear gloves when handling ready-to-eat foods.

Ready-to-eat foods are foods that can be eaten without further rinsing or cooking, such as fresh fruits and vegetables, sandwiches, and cheese.

Never re-use or wash gloves.

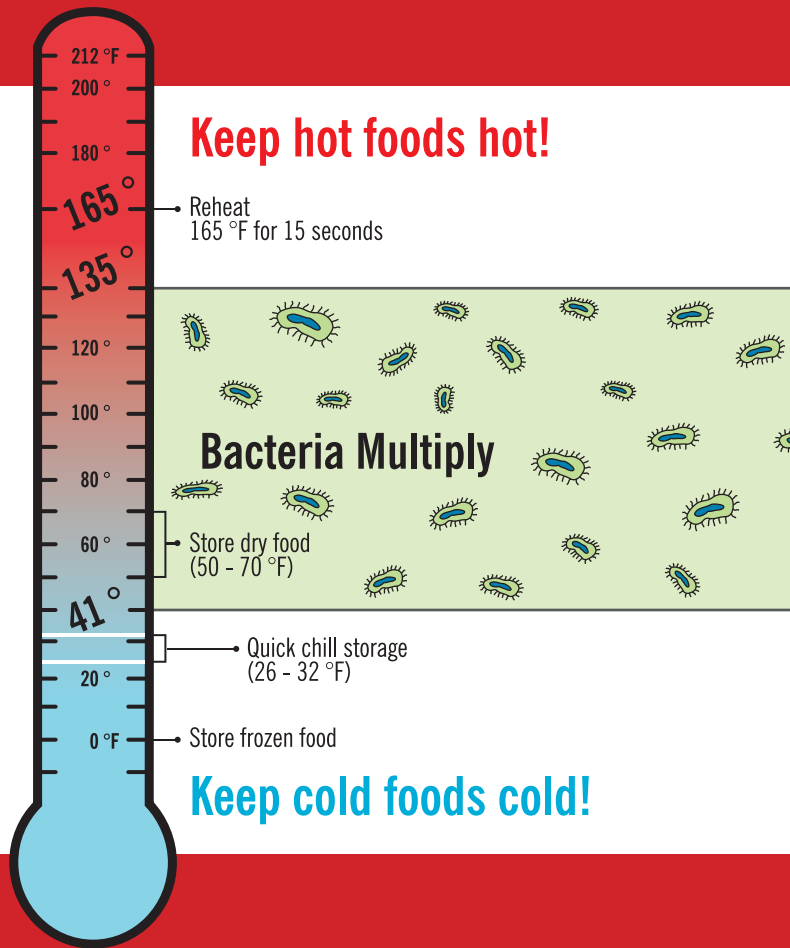
Dispose of soiled gloves.

Change gloves after sneezing, coughing, or touching face, hair, or other parts of the body.

Change gloves if touching something other than food, such as a cell phone, door handle, trashcan, cash register, or money.

TEMPERATURE DANGER ZONE

One of the most important ways that we keep food safe is by controlling time and temperature. The **temperature danger zone**, which is 41 °F to 135 °F, is the temperature range where bacteria grow rapidly. Bacteria can double in number in as little as 20 minutes. At this rate, harmful bacteria can multiply in food to a level capable of causing foodborne illness. It is important to keep hot food above 135 °F and cold food below 41 °F, and all **perishable** food out of the danger zone. Use a thermometer to ensure that food stays out of the temperature danger zone.



THERMOMETER BASICS

Thermometers are an essential tool in a kitchen. They come in all shapes, colors, and sizes and perform a variety of functions. This training guide discusses the dial thermometer. For more information on different types of thermometers, refer to the Additional Resources section in the back.

Food thermometers are used to measure the temperature of the food. They measure food temperatures to verify safety. These thermometers need to be **calibrated**, or adjusted for accuracy, on a regular basis; conditions such as dropping a thermometer or extreme temperatures could affect their accuracy.

As a best practice, record when you calibrate thermometers on sheets such as logs. This provides evidence that proper food safety practices were followed, in the event a foodborne outbreak does occur. Use temperature logs to record temperatures of refrigerators and freezers, cooked food, and transported food. Samples of these temperature logs are available on the ICN website at www.theicn.org.

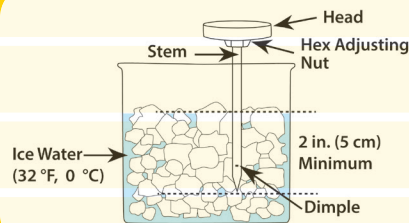
CALIBRATING A THERMOMETER

When do you calibrate a thermometer?

- Ideally daily, but at least weekly.
- When a thermometer is dropped.
- More often if specified by local policy.

How to calibrate a dial thermometer - Ice Water Method

- 1 Fill a large container with ice.
- 2 Add water to within 1 inch of top of container.
- 3 Stir mixture well.
- 4 Let it sit for one minute.
- 5 Place thermometer in container so that the sensing area of stem or probe (usually indicated by a dimple) is completely submerged in the water.
- 6 Keep the thermometer from touching the sides or bottom of the container.
- 7 Let thermometer stay in ice water for 30 seconds or until the dial stops moving.
- 8 Place the calibration tool on the hex adjusting nut and rotate until the dial reads 32 °F, while in ice water.
- 9 Repeat process with each thermometer, and record on the log.



HOW TO TAKE TEMPERATURES

1. Before each use, wash the stem of the thermometer with soap and water and sanitize by dipping stem into **sanitizing solution** or wiping with a **sanitizing wipe**. Allow to air dry.
2. Because there are many different types of foods, use the temperature-taking method appropriate for each food. Make sure the sensing area of the food thermometer (indicated by a dimple) is submerged in the food when taking a temperature. The proper way to take the temperature of certain foods is listed here ➡ ●
3. Wait for the temperature display to stay the same temperature for about 15 seconds.

Roasts

insert thermometer in the middle of the roast avoiding any bones.

Poultry

insert thermometer at the thickest part avoiding any bones.

Casseroles

check temperature in the center and at several other points.

Thin meats, such as hamburger patties

insert thermometer into the side of food until 2-3 inches deep.

Milk

open a carton and insert thermometer at least 2 inches into the milk.

Packaged foods

place the thermometer between two packages without puncturing the packages.

RECEIVING TEMPERATURES

It is important to check the temperature of frozen or refrigerated foods immediately upon receipt. Check frozen foods to make sure that they are frozen solid and show no signs of thawing and refreezing such as boxes being wet or foods having large ice crystals.

Check temperatures of refrigerated foods.

- Fresh meat and poultry should be 41 °F or below.
- Packaged products should be 41 °F or below.
- Milk and eggs should be 45 °F or below.
Milk must be put in a 41 °F or lower cooler after receipt.

Move foods to storage quickly, beginning with refrigerated foods, then frozen foods, then foods for dry storage.

Contact the site manager if food is not delivered at the proper temperature.

COOKING TEMPERATURES

Certain cooking temperatures need to be reached for different types of raw food to ensure that **microorganisms** generally associated with them and that are responsible for causing foodborne illness are killed.

135 °F for 15 seconds

- Fresh, frozen, or canned fruits and vegetables that will be held hot prior to service
- Ready-to-eat food that has been **commercially prepared** (to reheat for **hot holding**)

145 °F for 15 seconds

- Whole cuts of beef & pork; seafood

155 °F for 15 seconds

- Ground products containing beef, pork, or fish
- Fish nuggets or sticks
- Cubed or Salisbury steaks
- Eggs cooked for hot holding

165 °F for 15 seconds

- Poultry
- Stuffed beef, pork, or seafood
- Pasta stuffed with beef, eggs, pork, or seafood, such as lasagna or ravioli

HOLDING FOOD/TRANSPORTING FOOD TEMPERATURES

Once a food is prepared, it must be held hot at 135 °F or above or cold at 41 °F or below until served. Maintain these temperatures when transporting food to another site. Use an appliance thermometer to be sure that refrigerators or portable coolers are at the correct temperatures.

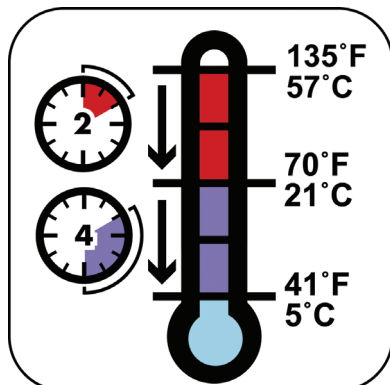
Milk and items like sandwiches containing deli meat should arrive cold to the summer meals site.

Use a food thermometer to check the temperature of perishable food to ensure it is at the right temperature – hot food at 135 °F or above and cold food at 41 °F or below.

Contact the site manager if the food is not delivered at the proper temperature.

COOLING TEMPERATURES

Safely cool hot, cooked foods within the recommended timeframes. Food passes through the temperature danger zone as it cools. It is important to get it through the temperature danger zone as quickly as possible to prevent bacteria from growing in the food.



Copyright © International Association for Food Protection

Hot food must be cooled from 135 °F to 70 °F within 2 hours.

It must then be cooled from 70 °F to 41 °F in the next 4 hours (food must be cooled from 135 °F to 41 °F within a total of 6 hours).

Food at room temperature must be cooled to 41 °F within 4 hours.

If cooling times and temperatures are not met, the food must be reheated to 165 °F for 15 seconds and the cooling process started again.

METHODS FOR COOLING FOOD



Pre-chill ingredients used for making salads and other ready-to-eat foods.

Separate food into smaller portions and place in shallow containers that are no more than 2 inches deep.

- Cool food loosely covered on top shelf of freezer. Heat must be allowed to escape.
- Use chill sticks/ice paddles and ice water baths. Ensure cooling food is stirred frequently to allow heat to escape.



REHEATING TEMPERATURES

Reheating food requires food to go through the temperature danger zone.

Reheat foods to 165 °F for 15 seconds within 2 hours to destroy microorganisms in the food.



CLEANING TABLES, WORK SURFACES, AND EQUIPMENT

Be sure all food preparation occurs on a clean and sanitized surface. This reduces the risk of food becoming contaminated by microorganisms. Use a 3-step process to make sure all surfaces that will come in contact with food are clean.

Follow state and local health department requirements.

1

Wash surface with soap and water solution to clean.

2

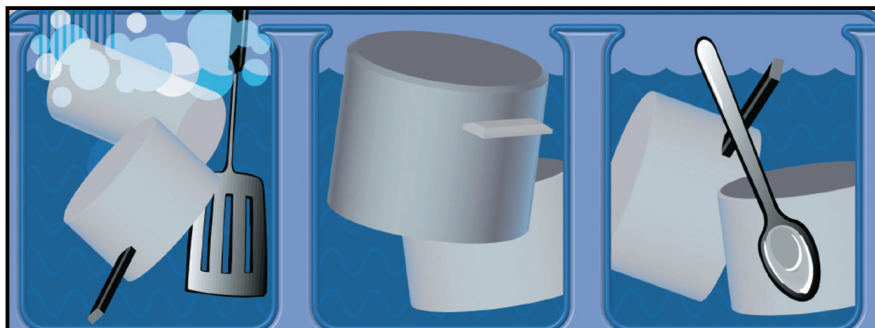
Rinse surface with clean water to remove debris and soap.

3

Sanitize surface using a sanitizing solution mixed at the concentration specified on the manufacturer's label. Allow items to air dry.

HOW TO USE A THREE-COMPARTMENT SINK

Each compartment of a three-compartment sink has a specific purpose. The first compartment is for washing, the second is for rinsing, and the third is for sanitizing. Sanitize by immersing items in hot water at or above 171 °F for 30 seconds or by using a chemical sanitizing solution mixed at a concentration specified on the manufacturer's label. If using chemical sanitizer, test the sanitizer concentration using an appropriate test strip to confirm that the sanitizer is at the strength to kill microorganisms but not so strong as to damage equipment and utensils. If you have a 2-compartment sink, work with your local health department to come up with an approved standard operating procedure.



Wash
110 °F (43 °C)
or higher

Rinse

Sanitize
Hot water 171 °F (77 °C)
or chemicals

USING A DISHWASHER

Scrape food particles into trashcan before loading dishwasher.

Do not overload dish rack.

Dishmachine final rinse cycle temperature should be at 160 °F or above if using heat to sanitize utensils.

- Check the temperature gauge on the machine.
- Do a secondary check using a **heat sensitive tape, one-time temperature indicator** or **high temperature thermometer** (thermometer approved to use in a dishmachine).
- Doing these checks will ensure that appropriate temperatures for sanitizing are reached.

If dishmachine uses a chemical sanitizer, check the sanitizer concentration of the rinse water using appropriate test strips.

- Ask the dishmachine manufacturer what kind of sanitizing strips to use.

**Always wash hands before handling clean and sanitized dishes, equipment, and utensils.
NEVER load dirty dishes and then handle clean dishes without washing hands.**

GLOSSARY

Calibrate: adjusting equipment to ensure measurements are accurate

Commercially prepared: food that is prepared by a food manufacturer; can come in forms such as pre-packaged, pre-portioned, or pre-cooked

Foodborne illness: illness caused by pathogens, including bacteria, viruses, parasites, and molds, and non-infectious agents, such as chemicals, toxins, and metals; also called “food poisoning” and “stomach flu”

Foodborne illness outbreak: when two or more people get the same illness from consuming contaminated food or liquids with a common source

Food contact surfaces: a surface of equipment or a utensil with which food normally comes into contact

Heat-sensitive tape: tape that adheres to a surface and changes color when a certain temperature has been reached

High temperature thermometer: a thermometer that can reach high temperatures (for example 500 °F); to use in a dishwasher, it must state that it is approved by manufacturer

Hot holding: cooking food to a safe temperature and then holding that food until serving at 135 °F or above

One-time temperature indicator: a type of temperature measurement device that is only activated if a certain temperature is reached; only able to use one time

Microorganisms: small living organisms that can be seen only with the aid of a microscope. There are four types of microorganisms that can contaminate food and cause foodborne illness: bacteria, viruses, parasites and fungi.

Perishable: food item that has a limited or short shelf life before quality or safety of the food is effected

Ready-to-eat foods: foods eaten without further rinsing or cooking, such as cut fruits and vegetables, sandwiches, and cheese

Sanitizing solution: solution containing sanitizer that has been approved for food contact surfaces and that has been prepared with water to the concentration specified by the manufacturer

Sanitizing wipe: disposable wipes containing sanitizer that can be used to sanitize equipment like food thermometers

Temperature Danger Zone: temperature range between 41 °F to 135 °F where bacteria grow rapidly

Test strips: color-changing paper strips used to test a sanitizing solution to confirm that the sanitizer is at the correct concentration

ADDITIONAL RESOURCES

- Center of Disease Control. (2016). *Handwashing: Clean Hands Save Lives*. Retrieved from cdc.gov/handwashing/show-me-the-science-hand-sanitizer.html
- Institute of Child Nutrition. (2016). *Employee health and personal hygiene for school nutrition managers and directors*. University, MS: Author.
- Institute of Child Nutrition Food Safety Fact Sheets (2016)
 - Calibrating Thermometers
 - Cleaning and Sanitizing
 - Cooking Foods
 - Cooling Foods
 - *E. coli*
 - Handwashing
 - Hepatitis
 - Holding Cold Foods
 - Holding Hot Foods
 - Manual Dishwashing
 - Mechanic Dishwashing
 - Norovirus
 - Personal Hygiene
 - Receiving Foods
 - Reheating Foods
 - Salmonellosis
 - Shigellosis
 - Temperature Danger Zone
 - Transporting Foods
 - Typhoid Fever
 - Using a Thermometer
 - Using Suitable Utensils When Handling Ready-to-Eat Foods



The University of Mississippi
School of Applied Sciences
800-321-3054 • theicn.org



United States Department of Agriculture



The Center of Excellence for
FOOD SAFETY RESEARCH IN
CHILD NUTRITION PROGRAMS