

ISBE Food Handler Training Study Guide

Common Causes of Foodborne Illness

- Poor food handler hygiene
 - Poor hand washing practices
 - Employees working while they are ill
 - Cross contamination
 - Inadequate cooking temperatures
 - Inadequate temperature control

Hazards in the food service area can be:

- Physical Hazards
 - Objects that inadvertently end up in food may not cause a foodborne illness, but could cause physical injury
 - * Hair
 - * Glass
 - * Dirt
 - * Fingernails
 - * Jewelry
- Chemical Hazards
 - Chemicals can contaminate food if they are improperly stored or used around food
 - * Cleaners
 - * Sanitizers
 - * Pesticides
- Biological Hazards
 - Bacteria alone can cause foodborne illness, but bacteria also produce toxins that may not be destroyed during the cooking process.
 - Viruses may be carried by food handlers prior to them even feeling sick. Coughing and sneezing allow for easy transmission of viruses and is the reason for the recommended practice of double hand washing.
 - Parasites may be in meat or fish, but using proper endpoint cooking temperatures will kill parasites.

The 'Big 5' of Foodborne Illnesses

- Shigella – Bacteria
- E. Coli – Bacteria
- Salmonella – Bacteria
- Norovirus – Virus
- Hepatitis A – Virus

The temperature danger zone is 41° F to 135 ° F

- Foods being cooled or heated must move through the temperature danger zone quickly
- Foods that are allowed to remain in the danger zone for 4 or more hours are unsafe to eat, and must be discarded
- Foods of greatest concern are Time-Temperature Control for Safety (TCS) foods
 - Moist, nutrient or protein rich foods

Proper cooling

- Reduce portion sizes to cool faster
- Place food in cooler or freezer in shallow containers
- Ensure foods or containers allow for air movement
- Do not stack or tightly pack foods that are being cooled
 - Leave uncovered on upper shelf until properly cooled
- Stir foods to speed and ensure even cooling
 - Use ice paddles or wands

Proper Cooling Must Occur Within 6 Hours

- Foods must go from 135° F to 70° F within 2 hours; AND
- From 70° F to 41° F within 4 hours

Key End-Point Cooking Temperatures

- 165° F for 15 seconds
 - Poultry – Whole or Ground
 - Stuffed meats or pastas
 - Casseroles, mixed dishes
- 155° F for 15 seconds
 - Ground hamburger
 - Pork
- 145° F for 15 seconds
 - Whole Meats
 - Fish and Seafood

Proper Thawing

- In a refrigerator that is 41° F or less
- Completely submerged under running water
 - Water temperature must be 70° F or less
 - Sufficient water flow to agitate and remove loose particles
 - No part of food can be above 41° F for more the 4 hours
- As part of the cooking process
 - Microwaving is allowed as long as the food is immediately moved to standard cooking process

Date Marking

- Any food that is going to be used within 24 hours does not need to be date marked
- Prepared, previously cooked, or open TCS products can be stored for 7 days at a temperature of 41° F or below
 - Day 1 is the first day the food is stored
 - After the 7th day food should be discarded

Reheating

- Any previously prepared or cooked item that must be heated for service, must be reheated to 165° F

Cold Holding

- Refrigerated foods must be held at 41° F or less
- Frozen foods should be held at 0° F or less

Hot Holding

- Cooked, ready to serve foods must be held at 135° F or hotter

Using a food thermometer

- Insert thermometer in the thickest part of the food
- For large foods or dishes take temperature readings in multiple areas
- Stir liquid products before taking temperature
- Do not allow probe to touch bone, container, or cooking surface when taking temperature

Calibrating food thermometers

- Pack a container with crushed ice and water
- Put thermometer in ice-water mixture, ensuring at least 2 inches of the probe is submerged
- Hold for 30 seconds, thermometer should read 32° F
- If thermometer does not read 32° F, calibrate according to manufacturer instructions and reinsert in fresh ice/water mixture

Hair Restraints

- Food handlers should use an effective hair restraint
 - Hat
 - Hair Net
 - Beard Restraint
 - Or other clothing or body covering that covers body hair

Clothing

- Food handlers should wear clean clothing each shift
 - Shirts, pants, aprons, hats

Fingernails

- Should be trimmed and maintained
- Food handlers should not wear fingernail polish or artificial fingernails

Jewelry

- Food handlers should not be wearing any jewelry when preparing and/or serving food
 - EXCEPTION: Wedding rings are allowed

Food Handler Illness or Injury - When to Stay Home

- Illness
 - Diarrhea
 - Vomiting
 - Jaundice
 - Fever, sore throat

Employees with any of these symptoms may only return to work after they have been symptom free for at least 24 hours.

- Injury
 - Boils
 - Cuts
 - Burns
 - Sores

Proper Glove Use

- Gloves are not a replacement for proper hand washing
- Wash hands prior to putting on gloves
- Gloves provide an additional barrier
- Bare hand contact with ready to eat foods is not allowed
- Gloves should be changed when changing job duties

Hand Sanitizer

- Use of a hand sanitizer is not a replacement for proper hand washing
- Should be stored near hand washing stations
- Applied after hands have been properly washed
 - Use of gloves AND hand sanitizer together is NOT an acceptable replacement for proper hand washing.

When to Wash Your Hands

- Before touching food preparation utensils or surfaces
- Before touching food, especially foods that will not be cooked
- Between a change of work responsibilities
- After handling any raw meats, poultry or fish
- When returning to food service area

Hand Washing Technique

- Use sink specific for hand washing
- Wet hands with warm water and apply soap
- Scrub hands for approximately 20 seconds
 - Use of a fingernail brush is recommended
- Dry hands using single use paper towels or air dryer

Receiving

- All items should be inspected as they are received
 - Items should be clearly labeled
 - Undamaged
 - Expiration or use by dates checked
- Dry goods at or below 70 ° F
- Refrigerated items at or below 41° F
- Frozen items at or below 0° F, keeping foods frozen and free of ice crystals
- Non-food items, especially chemicals, should remain separated from all food items during receiving and storage

Storage Procedures

- First In, First Out (FIFO)
 - Date marking and rotation of all food products will help ensure oldest products are used first
- Items should be stored at least 6 inches off the ground
- As new products are stored, expiration dates and product conditions of currently stored products should be checked
 - Any damaged or out of date products should be safely and properly discarded

Cleaning and Sanitizing

- Cleaning is the removal of visible dirt and debris
- Sanitizing is the use of chemicals or heat to reduce the number of microorganisms

Proper use of a Three Compartment Sink

- First, remove food and other debris
- Second, use warm soapy water in Compartment 1
- Third, thoroughly rinse using warm, clean water in Compartment 2
- Fourth, sanitize following instructions for the type of sanitizer being used in Compartment 3
- Fifth, air dry

Cleaning and Sanitizing Schedules

- School food service staff should perform scheduled cleaning and sanitizing practices on all equipment, utensils, other food contact surfaces, and all food service areas, including storage and garbage areas
- Cleaning and sanitizing schedule may depend on menu, work load and daily food prep being performed
- High touch and heavily used items should be cleaned and sanitized on a regular basis
 - This may mean multiple times per shift, or on a daily basis

Prevention of Food Safety Issues – Food Safety Plan

- USDA Required School Food Safety Plan – Main Headings/Sections
 - Overview
 - Employees, equipment inventory, categorization of menu items (Process Approach)
 - Standard Operating Procedures
 - Monitoring
 - Corrective Actions
 - Record Keeping
 - Review/Revisions
- Hazard Analysis and Critical Control Points (HACCP)
 - Hazard Analysis is the review or inspection of the food service area to look for potential food safety risks
 - Critical Control Points are points in food preparation processes where correct procedures must be used to ensure food safety
 - Control Measures are processes or steps that are performed to reduce food safety risks
 - Critical Limits are measurable, typically times and/or temperature limits
- Example of a Critical Control Point, Control Measure, and Critical Limit
 - Critical Control Point – Food handlers switching from prepping raw chicken to prepping salad bar
 - Control Measure – To prevent cross contamination food handlers must wash hands before prepping salad bar
 - Critical Limit – Food handler should scrub hands for 20 seconds (measurable time) to limit food safety risks