DBPR CONTRACTED FOOD SAFETY PROVIDER

Florida dbpr
Department of Business & Professional Regulation

SAFESTAFF® | ServSafe
National Restaurant Association™

Food Handler Certificate Program

FRLA

FLORIDA RESTAURANT & LODGING ASSOCIATION

DBPR Approved Program
Provider No. 1752486

THANK YOU FOR CHOOSING SAFESTAFF®

Dear Foodservice Industry Professional:

Thank you for purchasing the SafeStaff® Food Handler Certificate Program Guide. The SafeStaff® Program is the State of Florida's contracted food handler training program developed by the Florida Restaurant & Lodging Association (FRLA).

This training guide will provide essential food safety information, which will comply with Florida Statute 509.049 (The Food Handler Training Law), while promoting professional standards among Florida's foodservice industry.

Florida law mandates that all foodservice employees be trained in an approved food safety program. A public foodservice establishment has 60 days from date of hire to train their employees with a Florida approved food safety training program. The foodservice establishment shall be issued an original certificate for each employee certified and the employee shall receive an original wallet card. The card or certificate must be produced by a certified foodservice employee, or by the public foodservice establishment, respectively, in its "duly issued original form" upon request of a DBPR inspector. The training is valid for three (3) years. Managers are required to keep records of all SafeStaff® Food Handler Training.

In addition to this study guide, FRLA offers the SafeStaff® Food Handler training program in an online format, in partnership with ServSafe, and other training materials and services to meet all your regulatory compliance needs, ensure the health and safety of your guests, and protect your license and business. Contact us to learn more about specialized on-premise training for food employee certification or protect your beverage alcohol license with our SafeStaff® Responsible Vendor Program.

We would also like to acknowledge our ServSafe® partners at National Restaurant Association Solutions for their continued commitment to food safety.

Contact us today for all of your training and testing needs by calling 866-372-7233 or visiting our web site at www.SAFESTAFF.org.

Cheers!

Carol B. Dover, FMP
President/CEO
Florida Restaurant & Lodging Association
www.FRLA.org

SAFESTAFF® | ServSafe National Restaurant Association™

FOOD HANDLER CERTIFICATE PROGRAM

Official DBPR Contracted Provider

Florida dbpr Department of Business & Professional Regulation

DBPR Approved Program Provider No. 1752486

Florida Restaurant & Lodging Association

For more information about the
SAFESTAFF® FOOD HANDLER TRAINING PROGRAM
or to reorder more copies of this Food Handler Training Guide, contact:

SAFESTAFF®
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TALLAHASSEE, FL 32302-1779
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www.SafeStaff.org

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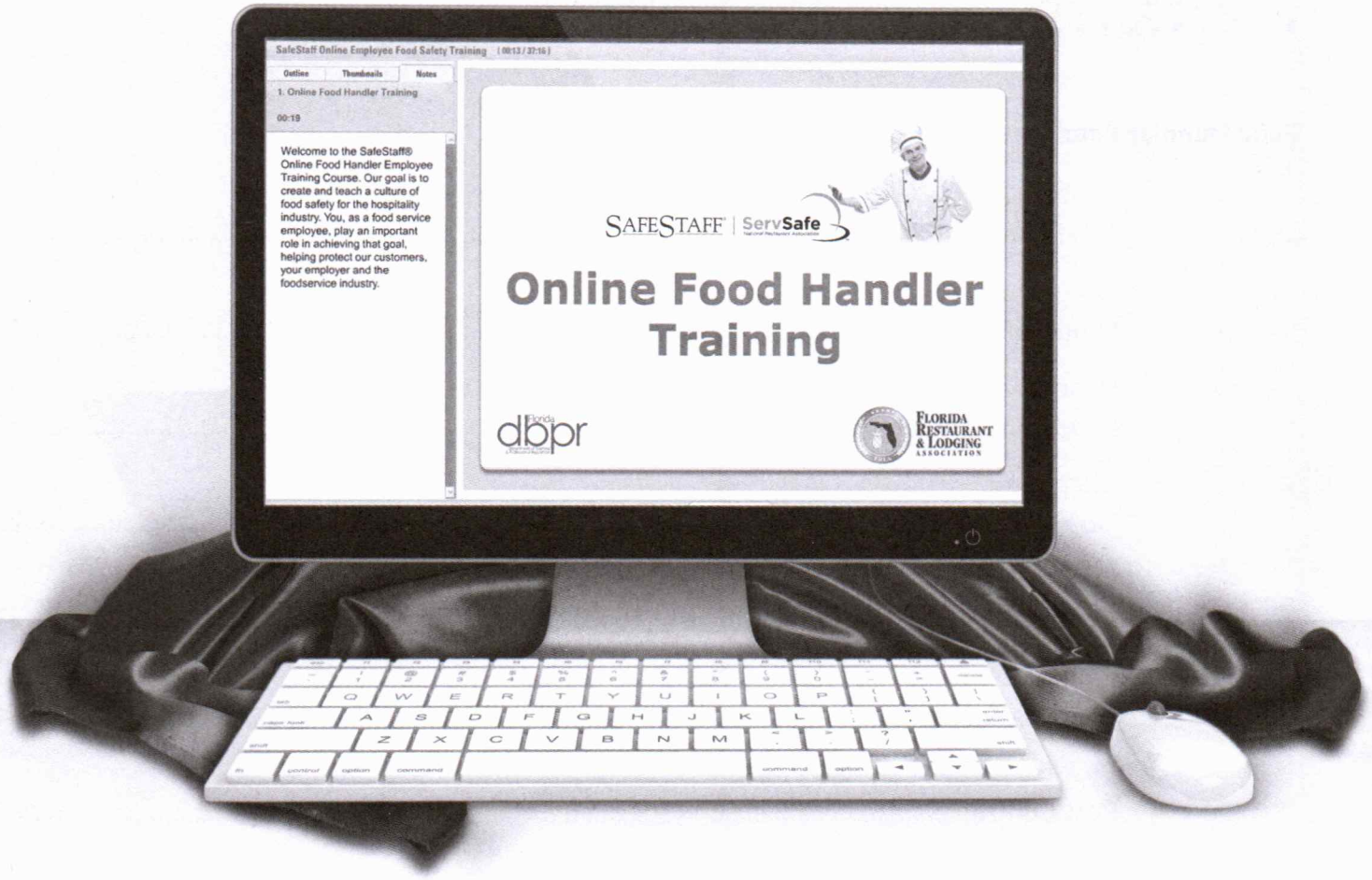
Food Handler Employee Training

Editorial Staff: Geoff Luebkemann, Susie McKinley, Elizabeth Sheffield, and Tommy Toth



SAFESTAFF® ONLINE FOOD HANDLER

The Florida Restaurant and Lodging Association is excited to announce that SafeStaff is now a proud partner of ServSafe. The Florida Restaurant and Lodging Association have partnered with the **National Restaurant Association** to offer the SafeStaff Online Food Handler Course for use in Florida on ServSafe.com.

The SafeStaff® program is convenient, affordable and meets all of the requirements mandated by Florida law.

For more information, visit ServSafe.com or contact our Education and Training Department at (850) 224-2250 or (866) 372-7233.

WWW.SAFESTAFF.ORG
1-866-372-SAFE

SAFESTAFF® | ServSafe National Restaurant Association

OFFICIAL STATE-CONTRACTED FOOD SAFETY PROVIDER – DBPR# 1752486

PLEASE READ THESE INSTRUCTIONS BEFORE TRAINING

Instructions for conducting the SafeStaff® Food Handler Training Program

Florida law requires that all employees of DBPR-licensed foodservice establishments receive basic food safety training, using a DBPR-approved program, within 60 days of the hire date. Employee training is valid for three years, at which time employees must be retrained. Food establishments are responsible for record-keeping and proof of training.

The foodservice establishment shall be issued an original certificate for each trained employee by the Certified Food Protection Manager (CFPM) that conducted the training, and the trained employee shall receive an original wallet card. Such certificate or card shall be produced by the foodservice establishment or employee, respectively, in its duly issued original form, when requested by a DBPR inspector.

This training program can be administered by any CFPM or can be taken online at www.SafeStaff.org. For questions regarding this program, contact SafeStaff® at 866-372-7233.

Before the training begins, provide each participant one SafeStaff® Food Handler Training Guide and a #2 pencil. Failure to complete the steps below will result in training unverifiable by DBPR, and potentially cause serious compliance issues.

WHEN READY TO BEGIN:

Step 1 Have each employee read this instruction page to prevent common errors, and then carefully tear out the Bubble Form from the back of the SafeStaff® Food Handler Training Guide.

Step 2 Using a #2 pencil, have each employee complete the employee, trainer and business information. It is critical that the exact same spelling be used for the establishment's name and address to ensure correct database entry for each Bubble Form.

Step 3 Collect the completed Bubble Form and place in a large envelope. One Bubble Form must be completed and received for each employee trained to ensure compliance with DBPR requirements.

Step 4 Begin the training session. Review the entire SafeStaff® Food Handler Training Guide. Allow time for questions and discussion to ensure understanding.

Step 5 At the end of each chapter; have each employee answer the Chapter Review Quiz.

Step 6 Upon completion of SafeStaff® training, have each employee complete the "Test Your Knowledge Self-test" at the end of the guide. Use this assessment to evaluate how well your employees understand the material.

Step 7 Review employee errors on Self-test questions using the appropriate section in this guide to ensure proper understanding of all food safety principals covered herein.

Step 8 In this Guide you will find a certificate, wallet card, and manager checklist. These should be completed for each trained employee. Retain the certificate in a safe and easily accessible place for review by DBPR inspectors. Check all topics covered on the manager checklist, and have the employee initial for confirmation. Keep these on file as proof of compliance and proof of your comprehensive food safety training program for employees. The Certified Food Protection Manager conducting the training should complete and sign each SafeStaff® Food Handler Training Card and issue to the employee.

Step 9 Upon completing Steps 1 through 8, send all completed original Bubble Forms by certified/traceable method to: SafeStaff®, 230 S. Adams Street, Tallahassee, FL 32301. Photocopies will not be accepted. Obtain your completed training report online at www.SafeStaff.org.

FOOD SECURITY MESSAGE

In a world requiring ever more vigilance from business owners and operators, food security is a top priority for public foodservice establishments. Food security, defined simply, is the prevention of deliberate food contamination. Operators have a responsibility to monitor all steps in the flow of food, and provide thorough protection from criminal acts. Preventative measures can minimize food safety risks. Operators must carefully construct and frequently review procedures and controls that identify and eliminate opportunities for criminal or terrorist activity through food. Success requires strong ongoing awareness and commitment from managers and employees.

Effective plans include preventative measures:

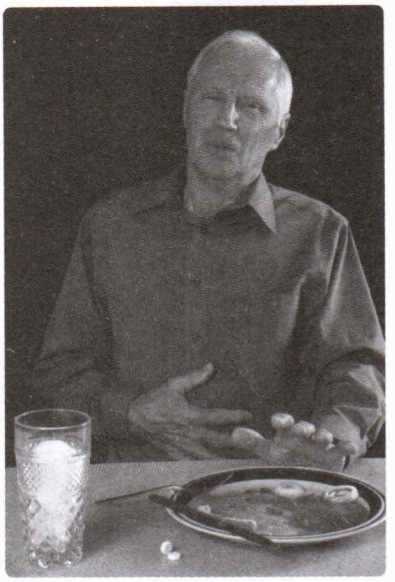
- Ensure that no unauthorized persons, such as former employees, have access to or are permitted in food storage and preparation areas
- Carefully monitor food as it is received and stored
- Not allow employee personal items in work areas
- Frequently monitor any customer self-service areas

Immediately report suspicious behavior to appropriate authorities:

- Local law enforcement: 911
- Florida Agricultural Law Enforcement: 800-342-5869
- Department of Homeland Security National Operations Center (Threat reporting): 202-282-8101
- FDA 24-hour Emergency contact: 301-796-8240 or 866-300-4374

CHAPTER 1

FOOD CONTAMINATION



A **foodborne illness** is a disease transmitted to people by contaminated food. Without proper employee training and careful attention to safe food handling procedures, food can easily be contaminated by any number of physical, chemical, or biological hazards. Foodservice workers must be knowledgeable and careful when handling and serving food products. Food, plates, glassware, and utensils can easily be contaminated by the transfer of bacteria or other microorganisms when incorrectly handled by foodservice employees. For these reasons, food handler training is mandatory for licensed restaurants and hotels in Florida.

The transfer of microorganisms from a worker's hands to food or food contact surfaces is called **cross-contamination.** Cross-contamination also occurs when contaminated equipment is used to prepare or serve food without first being washed, rinsed and sanitized. An example of this would be the use of a cutting board to prepare raw chicken, then using the same cutting board to prepare ready-to-eat foods such as chopping lettuce for a salad.

TYPES OF FOOD CONTAMINATION

Microorganisms occur naturally and can be found virtually everywhere - in air, water, on surfaces, and on people. They can be transferred from surface to surface in many different ways. Being aware of how microorganisms are transferred is the first step to reducing the risk for foodborne illness. In addition to microorganisms, food can be contaminated by other hazardous substances. Food may become contaminated in one of three ways:

Biological contaminants: microorganisms such as viruses, bacteria, parasites, and fungi
Chemical contaminants: cleaning products, toxic metal residue, and pesticides
Physical contaminants: hair, bandages, dirt, metal shavings, artificial fingernails, pest droppings, and chipped equipment

WHAT CAUSES FOOD CONTAMINATION

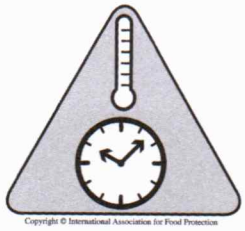
Poor Personal Hygiene

According to the Centers for Disease Control (CDC), poor personal hygiene is one of the leading causes in the spread of foodborne illness. Food handlers must understand the importance of handwashing and eliminating the fecal / oral route of food contamination. Frequent and correct handwashing is extremely important in preventing cross-contamination when serving and preparing food. Good personal hygiene includes: clean work clothes, avoid touching one's hair, skin, nose or mouth, maintaining health, reporting illness, not working while ill, not wearing jewelry to work, and covering exposed cuts, burns or sores. Hair must be effectively restrained with a hairnet, cap or other technique. Fingernails must be clean, short, unpolished and may not have acrylic or other artificial products applied. Employees may not smoke or eat in a food preparation area, and may drink only from a covered cup with a lid and a straw.

Incorrect Cleaning and Sanitizing

Another critical area in preventing food contamination is proper cleaning and sanitizing of equipment, utensils, dishware and silverware. Even when food workers properly prepare food and have good hygiene, food can become contaminated if it comes into contact with unclean food contact surfaces or equipment. This can start a dangerous and costly chain reaction that results in a foodborne illness.

Improper Time and Temperature Control



The Temperature Danger Zone is between 41°F to 135°F. This is the temperature range in which harmful microorganisms grow most rapidly. For this reason, time / temperature control for safety (TCS) food may not remain in the Temperature Danger Zone for more than four (4) hours. Foods in the Temperature Danger Zone for more than four (4) hours must be thrown away. Examples of TCS foods are: eggs, poultry, dairy, ground beef, soy, meats, seafood and fish, cut leafy greens, tomatoes and melons, garlic in oil, baked potatoes wrapped in foil and pastry creams and custards.

According to the US FDA Food Code, potentially hazardous food is food that requires temperature control for safety (TCS) to limit pathogenic microorganism growth or toxin formation. To remain safe, food must always be held at proper temperatures:

Frozen food - hold at 0°F or lower - food must be frozen solid
Cold food - hold at 41°F or lower
Hot food - hold at 135°F or higher

When preparing food, work quickly and in small batches to minimize TCS food exposure to the Temperature Danger Zone. Using pre-chilled ingredients is a good way to protect food during preparation.

Cooking is one of the most critical points in the flow of food. Thoroughly cooking food destroys harmful microorganisms that may be present in food. Remember, cooking will not destroy existing toxins in food. Raw, frozen or chilled food should be cooked without interruption to the required minimum internal temperature unless it is cooked using the US FDA Food Code specifications for "non-continuous cooking." See Chapter 5 of this Guide for minimum temperature requirements.

Use of Unapproved Sources and Suppliers

All foods used in a public foodservice establishment must be obtained from an "approved source." An approved food source is a supplier, vendor, or any other food source that is licensed and inspected under the jurisdiction of a governmental entity. Restaurants must obtain food only from approved food sources, such as licensed food distributors and wholesalers, licensed processing plants, licensed meat suppliers, or licensed grocery stores.

Documentation as to where food is purchased must be available if requested by a food safety inspector. Food prepared in a home or any other unlicensed facility is never allowed for sale in a restaurant or by other public foodservice providers such as a caterer.

Food received in a foodservice establishment must be properly labeled, transported and stored in food-grade containers. Reject any food not from an approved source, or not in acceptable condition. Reject food or packaging exhibiting signs of spoilage, damage (dents, bulges, leaks, tears, rust) or items past the expiration date.

Cross-Contact from Food Allergens

A food allergen is a substance that when ingested prompts the generation of antibodies and a hypersensitive immune system response. This can result in damaging, discomforting or even fatal reactions from the immune system.

Individuals who are allergic to specific foods may experience a range of symptoms from mild (sneezing, coughing, itching) to severe (swelling, hives, difficulty breathing) or even death. Be alert and aware that some allergic reactions may require emergency responders for immediate assistance. All staff should know when it is appropriate to call "911."

Common food allergens are: wheat and wheat products, fish, shellfish, peanuts, tree nuts, soy and soy products, eggs and egg products, and milk and dairy products. Oils derived from these common sources, such as peanut oil, are also considered allergens.

The US FDA Food Code requires that all foodservice employees be trained in food allergen awareness. Employees should be knowledgeable about the eight most common food allergens: fish, shellfish, eggs, milk, wheat, soy (tofu), peanuts and tree nuts. Service staff should be trained to communicate with guests about food allergies and food prep staff must be trained in preventing allergen cross-contact during food preparation.

As a best practice, some operations also note on their menus and self-service areas which items contain common food allergens.

When working with food items that are common food allergens, be careful not to cross-contact with other foods. Employees should take the same precautions recommended to prevent cross-contamination from allergens as they do between raw and ready-to-eat foods. Remember, allergen cross-contact can occur on cooking equipment such as woks, flat-top or charbroil grills, and even in fryer oil. Allergen-exposed equipment should be segregated, or washed, rinsed and sanitized before using for an allergic patron.

Food Contamination Prevention Steps

- Enforce correct personal hygiene habits
- Prevent cross-contamination
- Keep food covered
- Separate raw meats, poultry and seafood from both unwashed and ready-to-eat food at all times during storage, preparation and display.
- Minimize bare-hand contact with cooked or ready-to-eat foods by using tongs / utensils, gloves and service trays
- Ensure food equipment, like cutting boards, prep tables and slicers, are cleaned, sanitized and in good condition
- Wash food only in properly sanitized, designated prep sinks
- Prevent the liquid from raw or thawing frozen foods from contacting cooked or ready-to-eat foods, potentially hazardous / TCS foods, or food contact surfaces and equipment
- Clean and sanitize all food contact surfaces using clean wiping and sanitizing cloths
- Practice strict time and temperature controls for all TCS food
- Store TCS food at 41°F or lower and 135°F or higher, out of the Temperature Danger Zone
- Work with small batches of food to minimize the time food spends in the Temperature Danger Zone during preparation
- Dispose of potentially hazardous / TCS foods that have been in the Temperature Danger Zone for four hours or longer
- Destroy bacteria present in food by thoroughly cooking all foods to their recommended minimum internal temperature and temperature exposure
- Discard any food that is suspected to be contaminated
- Store chemicals away from food
- If a wound or boil is located on the hand, finger or wrist, cover it with an impermeable cover like a finger cot or bandage. Then cover with a single-use glove.

Remember, food safety can be maintained by following these four basic principles: clean, separate, cook and chill.

BEST EMPLOYEE PRACTICE

Cross-Contamination

Employees must be constantly aware of the potential risks for cross-contamination. It is best to prepare raw poultry, meats and seafood on a separate surface as far as physically possible away from fresh produce and ready-to-eat food preparation areas. For best results, use color-coded cutting boards; Red for raw red meat, yellow for raw poultry, blue for raw seafood, green for produce and white for dairy.

Food Allergens

Employees should ask all guests as soon as they are seated if they have any food allergies. If stated, note allergies and ensure staff are aware of food allergies. Be careful not to cross-contact food intended for this customer.

CHAPTER ONE REVIEW QUIZ

True or False

1. T_____ F_____ If work surfaces and utensils are not properly cleaned and sanitized, food can become unsafe.
2. T_____ F_____ A leading cause of foodborne illness is unsafe food handling by foodservice workers.
3. T_____ F_____ Salt is a common food allergen.
4. T_____ F_____ Florida law requires food safety training for foodservice workers.

Complete each sentence

1. TCS food must not remain in the Temperature Danger Zone for more than _____ hours.
2. TCS food that has been in the Temperature Danger Zone for longer than the allowed time must be _____.
3. The three types of hazards which can cause contamination of food are: _____, _____, and _____.
4. Scientific research has proven that poor personal _____ is a leading cause in the spread of foodborne illness.

Multiple Choice

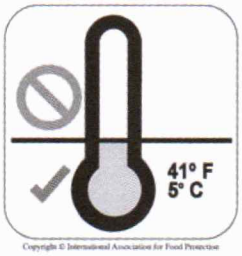
1. The Temperature Danger Zone, between 41°F to 135°F, is the temperature range in which harmful _____ grow most rapidly.
   a. plants
   b. microorganisms
   c. fish
   d. illnesses
2. _____ occurs when there is a transfer of microorganisms from one surface to another.
   a. Cross-contamination
   b. Physical contamination
   c. Time and temperature abuse
   d. Sanitizing
3. When preparing food, work in _____ batches to _____ the time food spends in the Temperature Danger Zone.
   a. large, maximize
   b. large, guarantee
   c. small, minimize
   d. small, increase
4. _____ is an extremely important factor in preventing contamination when preparing and serving food.
   a. Temperature abuse
   b. The use of dirty dishes
   c. Using paper products
   d. Proper handwashing

INTERNATIONAL SYMBOLS YOU SHOULD KNOW

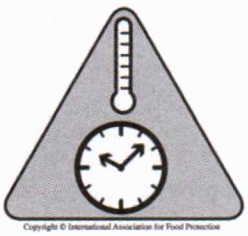
Wash Hands

No Bare-hand Contact

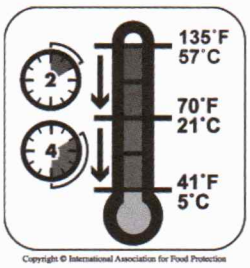
Cook Foods to Temperature



Proper Cold Holding

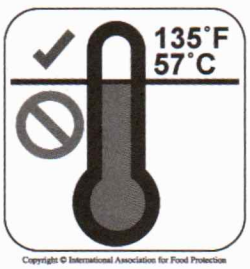


Time / Temperature Control for Safety



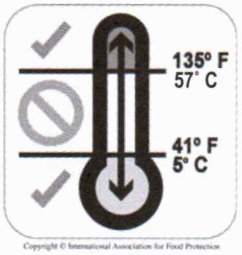
Proper Cooling

Don't Work Sick



Proper Hot Holding

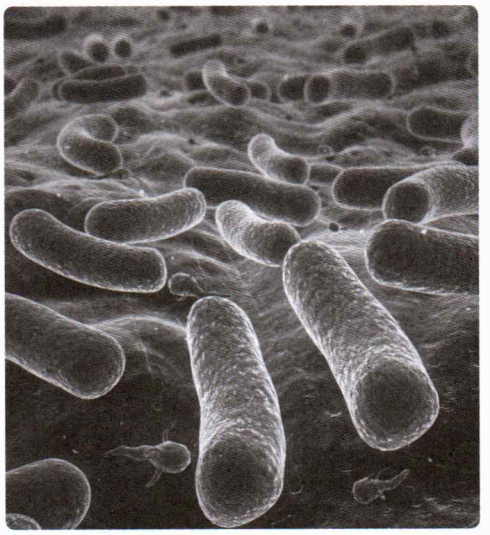
Prevent Cross-Contamination



Temperature Danger Zone (TDZ)

CHAPTER 2

FOODBORNE ILLNESS



Chapter 1, "Food Contamination", provided some basics on how food becomes contaminated. This is extremely important to understand and prevent, because food contamination can lead to foodborne illness.

A foodborne illness is a disease transmitted to people by contaminated food. A foodborne illness outbreak is when two or more people contract the same illness from the same food source, as confirmed through laboratory tests.

Every person is at risk for foodborne illness, and this risk can be reduced by properly training foodservice employees to carefully prepare and serve food.

TYPES OF MICROORGANISMS

As noted earlier, biological contamination is the presence of microorganisms or their toxins. Biological contamination is caused by four types of microorganisms:

- Viruses
- Bacteria
- Parasites
- Fungi

These microorganisms fall into two groups: pathogenic microorganisms and spoilage microorganisms.

Pathogenic microorganisms are invisible to the eye, cannot be smelled nor tasted, and are the primary cause of foodborne illness. **Spoilage microorganisms** can be seen and smelled, and usually do not cause a foodborne illness, but result in spoiled food.

HOW BACTERIA GROW

Conditions that provide a favorable environment for bacteria to grow are easily remembered using the acronym "FAT TOM," which stands for:

F	Food	Temperature Control for Safety (TCS) food allow growth / TCS foods allow growth
A	Acidity	Foods with slightly acidic or neutral pH allow growth
T	Temperature	Temperatures between 41°F to 135°F allow growth
T	Time	Foods stored or held in the Temperature Danger Zone for 4 hours or longer allow growth to unsafe levels
O	Oxygen	Most microorganisms require oxygen to grow
M	Moisture	Moisture in food provides the ideal environment for microorganisms to grow

TIME / TEMPERATURE CONTROL FOR SAFETY (TCS) FOOD

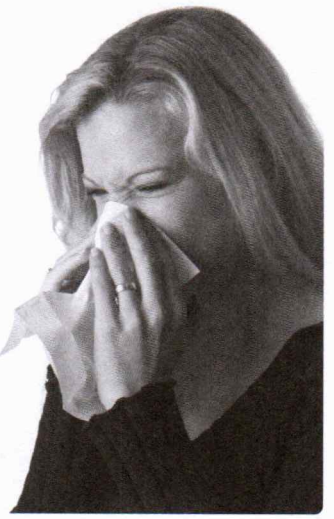
TCS food is any food that is capable of supporting the rapid growth of harmful microorganisms. Any food can become contaminated and cause foodborne illness, but these common foods have been frequently linked to cases of foodborne illness:

- Milk and milk products
- Fish, shellfish & crustacea
- Shell eggs
- Sprouts and raw seeds
- Meat - beef, pork & lamb
- Soy-protein foods
- Poultry
- Other raw products
- Cooked rice or beans
- Cut tomatoes
- Garlic in oil
- Sliced melons
- Cut leafy greens
- Baked potatoes wrapped in foil

FOODBORNE ILLNESSES

When a foodborne illness occurs, sick customers may experience common symptoms like nausea, vomiting, diarrhea, headache, fever and other flu-like symptoms.

Illness Caused by Viruses



Foodborne illnesses caused by viruses are the most common. A virus is a very small, infectious microorganism that can only grow inside the living cells of other organisms - humans, animals, and plants. Most are not effectively treated with antibiotics. Viruses are commonly transmitted by infected food workers, and cause sicknesses such as the common cold, flu, measles, chicken pox, and yellow fever. Good personal hygiene, including not working while ill, is the best preventative measure to avoid spreading viruses in a foodservice establishment. The following are the most common foodborne illnesses caused by a virus:

Illness	Hepatitis A
Caused by	*Hepatovirus*
Food sources	Shellfish, contaminated water and ready-to-eat foods like raw produce and salads
Prevention	• Use correct personal hygiene practices, particularly proper handwashing • Obtain foods from an approved source • Exclude diagnosed employees

Illness	Norovirus
Caused by	*Norovirus*
Food sources	Unsafe water sources that contaminate raw shellfish, fruits and vegetables
Prevention	• Use correct personal hygiene practices, particularly proper handwashing • Avoid cross-contamination through proper cleaning, sanitizing and correct handling, preparation and display of food • Properly wash and handle produce • Obtain shellfish from an approved source • Use water and ice from an approved source • Exclude diagnosed employees

Illness Caused by Bacteria

Foodborne bacterial illnesses are preventable, if measures are taken to protect food. Careful attention to time and temperature control, correct personal hygiene practices, cross-contamination prevention, and obtaining food supplies only from approved sources, will greatly reduce the risk of foodborne illness. The following are some common bacterial illnesses, foods they are associated with, and best preventive measures:

Best Preventative Measure - Prevent Cross-contamination

Illness	Nontyphoidal Salmonellosis (NTS)
Caused by	*Salmonella spp.*
Food sources	Poultry, raw eggs, produce (cantaloupes, tomatoes & peppers)
Prevention	• Avoid cross-contamination with raw foods and ready-to-eat foods • Cook foods to their recommended internal temperature and provide correct exposure time to minimum temperature • Exclude food handlers who are sick from NTS • Use correct personal hygiene practices, particularly proper handwashing

Best Preventative Measure - Time and Temperature Control

Illness	E. coli
Caused by	*Shiga toxin-producing E. coli (STEC)*
Food sources	Raw or undercooked ground beef, contaminated produce, unpasteurized dairy products
Prevention	• Cook ground beef to an internal temperature of 155°F and provide correct exposure time to minimum temperature • Use good personal hygiene practices, particularly proper handwashing • Avoid cross-contamination • Use only pasteurized dairy and juice products • Exclude diagnosed food handlers

Illness	Botulism
Caused by	*Clostridium botulinum*
Food sources	Home-canned goods, food from damaged packaging, garlic and oil products, reduced-oxygen packaged food
Prevention	• Practice proper time and temperature controls for storage • Do not use home canned items - use only food from approved vendors • Throw away any food from damaged packaging, particularly bulging containers

Best Preventative Measure - Good Personal Hygiene Habits

Illness	Shigellosis
Caused by	*Shigella*
Food sources	Salads, raw vegetables, dairy products, other ready-to-eat foods, contaminated water
Prevention	• Use correct personal hygiene practices, particularly proper handwashing • Use sanitary and approved food and water sources • Control flying insects • Avoid cross-contamination • Exclude diagnosed employees

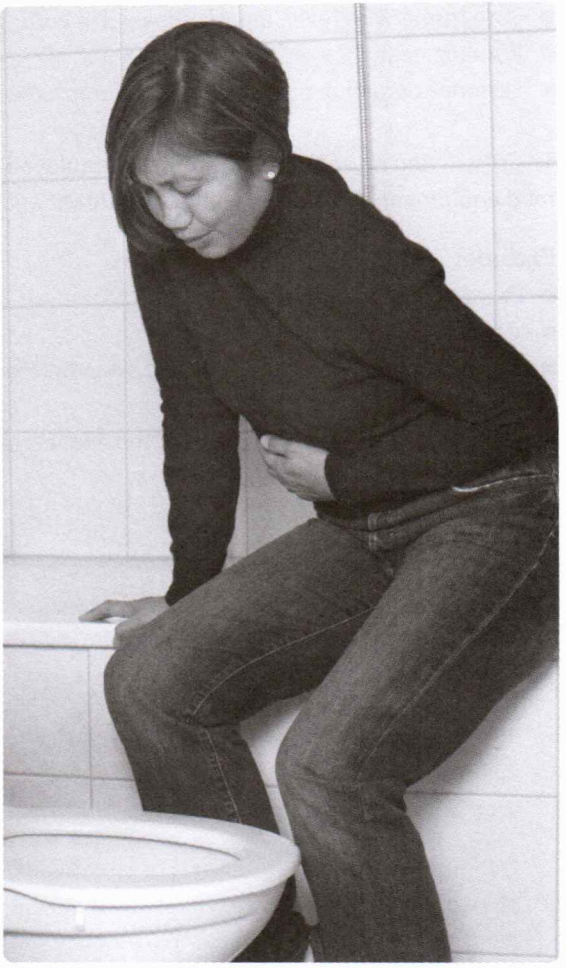
Illness	Salmonella Typhi (Typhoid Fever)
Caused by	*Salmonella spp.*
Food sources	Drinking water and ready-to-eat foods
Prevention	• Exclude food handlers who have been diagnosed with Typhoid Fever • Cook foods to their recommended internal temperature and provide correct exposure time to minimum temperature • Use correct personal hygiene practices, particularly proper handwashing

Other bacteria that can cause foodborne illnesses may include:

Listeria from unpasteurized milk products, melons and deli meats, Vibrio from contaminated raw shellfish, and Staphylococcus from the hair, skin, nose and throat of the human body.

Illness Caused by Parasites

Parasites are organisms that grow, feed and are sheltered on or in another organism — the "host" — while contributing nothing to the survival of the host. Parasites only need food to survive. Parasitic worms and their larvae are commonly found in animal foods such as hogs and fish. Parasites can cause foodborne infections that may include symptoms such as nausea, diarrhea, abdominal pain, fever, fatigue, and cramping. To prevent foodborne illness associated with parasites it is most important to obtain food, especially seafood, from a reputable supplier. Cooking foods to the required internal temperature is also important. Be sure that fish that will be served raw has been properly frozen and is designated to be of sushi-grade quality.



Illness Caused by Fungi

Fungi occur naturally in air, soil, plants, animals, water and some foods. Common fungi include molds, yeast, and mushrooms. Some fungi are harmful or even fatal when consumed by humans. Food with visible mold that is not an intended part of the product (such as the rind on certain cheeses) should be discarded. While fungus is typically considered a spoilage microorganism, some molds produce toxins that can cause illness. Aflatoxins produced by fungi, are found on nuts and oilseeds and can be toxic. Yeast, on the other hand, is a fungus that causes rapid fermentation (spoilage) of food and may produce an alcoholic smell or taste. Yeast, like mold, grows well in sweet, acidic foods with low water activity, such as jellies, jams, syrup, and fruit juice. Food that has been spoiled by yeast should be discarded.

HANDLING EMPLOYEE ILLNESS

Exclusion from Work

It is critical that all foodservice employees pay close attention to their health and report any illness or symptoms of illness to management. Employees that have been diagnosed with certain illnesses are prohibited by law from working in a foodservice establishment. This prohibition is called an "exclusion" from work. Carefully follow all rules and regulations for employee exclusion to prevent the spread of illness. Employees diagnosed with an illness from any of the following pathogens must be excluded from work in accordance with Florida law:

1. *Salmonella* Typhi (Typhoid Fever)
2. Nontyphoidal *Salmonella* (NTS)
3. *Shigella* (Shigellosis)
4. *E. coli* (STEC)
5. Hepatitis A
6. Norovirus

Diagnosed employees may return to work only after having been cleared to do so in writing by a medical doctor.

Restriction from Work

In addition to the legal obligation to exclude certain employees from work as described above, foodservice employees and managers must watch closely for the following symptoms, and restrict or exclude employees from work when exhibiting the following symptoms:

Restrict:

- Sore throat with fever, unless released in writing by a medical practitioner
- Running nose
- Lesions containing pus, such as boils or infected wounds that are open or draining

The restriction must keep symptomatic employees from working with exposed food, food contact surfaces, and food equipment. Individuals with a sore throat and fever should be excluded if they primarily serve a high-risk population.

Exclude:

- Diarrhea
- Vomiting
- Jaundice (yellowing of the eyes and skin), unless released in writing by a medical practitioner and approved by your inspector

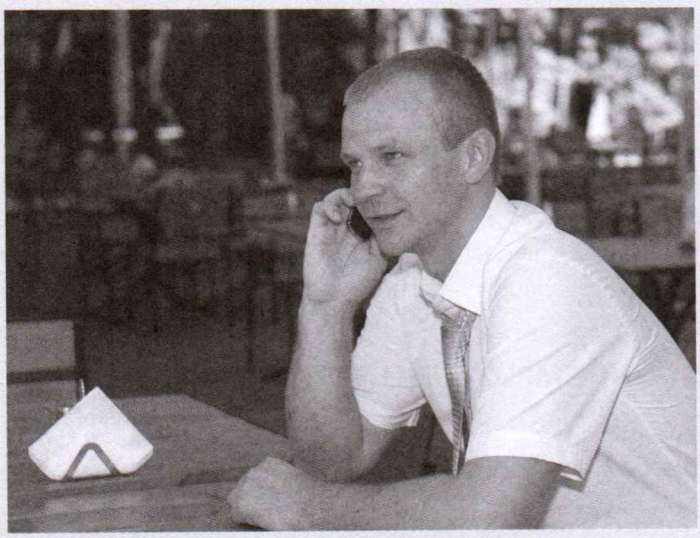
Exclude employees exhibiting any of the above symptoms when they are the result of a contagious or infectious condition.

BEST EMPLOYEE PRACTICE

Customer Complaints

It is extremely important to correctly and urgently handle any customer's claim that they became ill from eating at your foodservice establishment.

Whether at the time of service, or later by telephone or in person, all employees must know how to handle these claims according to company policy. Do not argue with the customer, but treat the situation as urgent and immediately notify your manager or supervisor.



CHAPTER TWO REVIEW QUIZ

True or False

1. T_____ F_____ A foodborne illness is a disease caused when people eat contaminated food.
2. T_____ F_____ Wheat is a common food allergen.
3. T_____ F_____ "Excluded" employees may return to work as soon as they feel better.
4. T_____ F_____ Employees have a legal responsibility to notify their supervisor when ill.

Complete Each Sentence

1. A potentially hazardous or _____ food is capable of supporting the rapid growth of harmful microorganisms.
2. _____ illnesses are commonly caused by poor personal hygiene behaviors.
3. Employees must report certain diagnosed illnesses and certain symptoms of illness to their _____.
4. Microorganisms capable of causing foodborne illness include: virus, fungi, parasites and _____.

Multiple Choice

1. Which of the following is not a type of microorganism?
   a. Fungi
   b. Bacteria
   c. Virus
   d. Acidity
2. Which of the following is the acronym used to remember the conditions in which microorganisms grow best?
   a. TALL BILL
   b. MAD MARY
   c. FAST CAR
   d. FAT TOM
3. Which of the following illnesses result in a food employee being "excluded" from work?
   a. Salmonellosis
   b. E. coli
   c. Hepatitis A
   d. All the above
4. Employees must report which of the following symptoms of illness to his or her manager:
   a. Headache
   b. Sore throat with fever
   c. Aching teeth
   d. Hair loss

CHAPTER 3

IMPORTANCE OF PERSONAL HYGIENE

Working in the foodservice industry requires employees to maintain good personal hygiene.

BASICS FOR GOOD PERSONAL HYGIENE

Good personal grooming is essential to preventing foodborne illness, and must be part of every food employee's regular routine. Bathing daily and wearing clean clothes to work is mandatory.

Aprons should not be used to wipe hands and must be removed before using the restroom or taking out garbage. Dirty aprons and other soiled uniforms or clothing should be stored in laundry bags.

Hair must be neat, clean, and effectively restrained. Hairnets, beard nets, hats or caps are all considered effective hair restraints. Ask a manager for your employer's policy.

Jewelry may not be worn on a food preparation employee's hands or arms, except a single ring that is a plain metal band. It is best to leave all other jewelry at home. If any other jewelry is worn, it must be removed before preparing food. Fingernails must be neatly trimmed and clean. Unless wearing gloves, a food employee may not wear fingernail polish or artificial fingernails while preparing food.

Correct Handwashing is a Must!

The majority of foodborne illnesses are transmitted to food by the hands of those preparing and serving food. You must always wash your hands or change gloves after doing any of the following:

- Touching bare skin
- Using the restroom
- Coughing, sneezing, using a handkerchief or tissue
- Tobacco use, gum chewing, eating, or drinking
- Handling soiled equipment, utensils, or clothing
- Working with raw foods
- Clearing a table or dirty dishes
- Removing and disposing of garbage / trash
- Using chemicals or pest control
- Engaging in any activity that may contaminate hands, like answering the phone
- Changing tasks during food preparation
- Handling money, pens, or anything touched by customers
- Touching or petting live animals; dogs

Wash hands during food preparation, and as often as necessary to remove soil and prevent cross-contamination. The following section clearly demonstrates correct handwashing techniques for foodservice workers and the importance of frequent and proper handwashing to prevent against foodborne illness.

TECHNIQUES FOR CORRECT HANDWASHING

Washing hands properly is critical. If hands are not washed thoroughly, the risk of contaminating food increases dramatically. Incorrect or non-existent handwashing has been directly associated with the outbreaks of diseases such as: Salmonellosis (NTS/ Typhoid Fever), Shigellosis, E. coli (STEC), and Norovirus.

To correctly wash hands:

1. Wet hands and exposed portions of arms with warm running water.
2. Apply an adequate amount of soap.
3. Scrub vigorously for 10-15 seconds, ensuring that the soap covers and cleans every part of hands, wrists and exposed forearms.
4. Clean between fingers and under and around fingernails.
5. Rinse thoroughly, using warm water, ensuring that all traces of soap are rinsed from hands.
6. Dry hands with disposable, single-use paper towel, hot-air dryer or high-velocity room temperature air dryer.
7. Use a paper towel to turn off the faucet.
8. If using a FDA approved hand sanitizer, apply to hands and allow time to dry before handling food or equipment.
9. Use a paper towel to open any doors between assigned stations and wash hands again if necessary.
10. Correct handwashing should take at least 20 seconds to complete. Wash hands frequently throughout the work shift and every time tasks are changed.

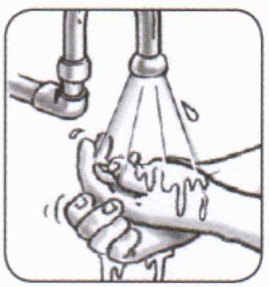
Take extra precautions when washing hands after using the restroom. After following the above steps for washing hands, wash hands again outside the restroom using the same steps. Be sure to thoroughly clean under fingernails. These additional precautions have been shown to significantly reduce the spread of virus and bacteria after using the restroom.

Designated handwashing stations must be convenient, accessible, and properly stocked with soap, sanitizer (if applicable), and paper towels. Expensive and dangerous food inspection violations can result when hand sinks are blocked, inoperable or not properly stocked. At no time may hands be washed in food prep or dishwashing sinks.

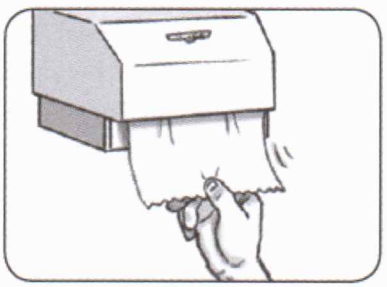
1) Rinse hands in warm running water (at least 100° F)

2) Apply hand soap

3) Scrub hands and exposed arms for 10-15 seconds. Concentrate on fingertips, between your fingers and palms.



4) Rinse



5) Use a single use paper towel to dry your hands. Turn off faucets with the paper towel.

6) Apply a FDA-approved hand sanitizer (must be used if operating under a DBPR approved AOP bare-hand contact plan)

Gloves and Bare-hand Food Contact

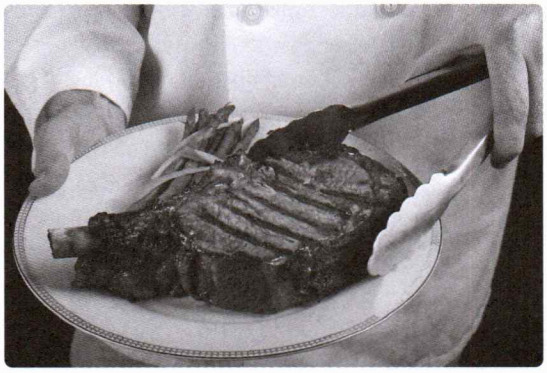
It is crucial to remember that gloves - just like hands - can become contaminated, and thus may cross-contaminate food, equipment, utensils, dishes and glassware. Prior to using gloves, hands must first be correctly washed to ensure a clean and sanitary start to food preparation.

Proper glove use also includes changing gloves:

- When switching tasks, such as after finishing a cleaning task, and before beginning a ready-to-eat food task
- When they become soiled or torn
- After handling raw meat, seafood or poultry
- Before handling ready-to-eat or cooked food
- After handling money
- As often as needed to prevent contamination

Hand antiseptics / sanitizers are chemical solutions applied to hands to kill bacteria that may remain behind after handwashing. These should never be used as a replacement for handwashing. After washing hands, you may use a FDA approved hand sanitizer as an additional precautionary step.

Serving Food Properly



The simple act of picking up or otherwise touching plates, utensils, glasses or other items that will be served to guests may result in cross-contamination. To maximize safety, follow these guidelines:

- Hold plates by the bottom or at the edge; never touch the food contact surface.
- Hold cups by the handle or the bottom; never put fingers on the rim of the glass, inside the glass, or on the beverage contact surface.
- Hold silverware by the handle; never touch the food contact surface. Store silverware so that it can be picked up by handles.
- When preparing to serve breads, salads, or other ready-to-eat items, use proper utensils such as tongs, deli-tissues, scoops, or spatulas, and use separate utensils for each type of food. Hands should never come into contact with food.
- Use tongs or other utensils to retrieve serving utensils that fall into food.
- Scoop ice with long handled, non-breakable utensils. Never use a glass, cup, or bowl — these become contaminated by hands and then cross-contaminate ice and can easily break. Do not store scoops or utensils directly in ice machines. The best practice is to store scoops outside the ice bin in a protected sleeve or on a sanitized surface.

Employee Breaks

Smoking, eating, and chewing gum while working can result in contamination when saliva is transmitted from the mouth to hands, and are therefore prohibited in food preparation areas. Drinking beverages in food preparation areas is prohibited unless the beverage is in a covered container with a lid and a straw. Ask a manager for your employer's policy and if there are designated areas for these activities.

As highlighted throughout this guide, handwashing is one of the easiest and most important factors in controlling foodborne illness. In accordance with Florida law, foodservice employees must wash hands after:

- All breaks
- Using the bathroom
- Smoking
- Eating
- Chewing gum
- Drinking a beverage

While these are all activities that require handwashing, employees should also wash hands frequently throughout the work shift, especially when changing work tasks, such as when switching from using cleaning chemicals to preparing food, or changing from working with raw food to ready-to-eat food.

Proper Treatment of Cuts, Burns, Sores and Skin Infections

To ensure employee health and safety, and minimize foodborne illness risk, all cuts, burns, sores, infected wounds or skin infections must be immediately reported to a manager or supervisor. Each of these skin conditions is required to be covered with a an impermeable bandage or finger cot and then covered with a glove when appropriate. Impermeable means that fluid from the wound cannot pass through the bandage. Employees may also be reassigned to duties that do not involve food preparation to minimize risk. Hands must be washed before and after attending to the wound, such as when applying medicated ointments or changing bandages.

BEST EMPLOYEE PRACTICE

Handwashing

To avoid food contamination, employees must thoroughly scrub all surfaces of the hands for at least 10-15 seconds using warm water and soap. Rinse thoroughly, and then dry using a disposable paper towel before beginning any food preparation. The entire process should take at least 20 seconds. To ensure you are devoting enough time and attention to washing your hands, try singing yourself the ABC's or the Happy Birthday song twice while you are washing your hands. Employees must pay close attention to hand hygiene and wash frequently.

CHAPTER THREE REVIEW QUIZ

True or False

1. T_____ F_____ Employees may eat a meal and cook for customers at the same time.
2. T_____ F_____ Employees should wash hands in the nearest prep sink.
3. T_____ F_____ A plain metal ring, such as a wedding band, is the only jewelry allowed on hands and arms while preparing food.
4. T_____ F_____ Employee hands must be scrubbed thoroughly for 10-15 seconds when handwashing.

Complete the Sentence

1. Cuts, burns or sores on fingers should be covered with an impermeable _____ and a single-use glove.
2. Expensive and dangerous food inspection violations can result when handsinks are not _____.
3. Employees must _____ hands after employee breaks.
4. Never wipe or dry _____ on your pants or apron.

Multiple Choice

1. Research has shown that a common cause of foodborne illness is:
   a. poor personal hygiene.
   b. cross-contamination.
   c. time and temperature abuse.
   d. All of the above.
2. Food employees must wash hands:
   a. in between tasks.
   b. after using the bathroom.
   c. after taking out the garbage.
   d. All of the above.
3. Sick employees should:
   a. work as long as able.
   b. prepare food away from others to avoid making them ill.
   c. immediately tell a manager or supervisor they are ill.
   d. call a friend.
4. To reduce foodborne illness employees should:
   a. change gloves as needed.
   b. report illness to managers.
   c. wash hands frequently.
   d. All of the above.

CHAPTER 4

FLOW OF FOOD

Good food safety practices begin with purchasing from approved suppliers and carefully inspecting food deliveries upon arrival. Careful attention to these steps can dramatically reduce foodborne illness risk factors, food cost, and ensure food quality. All deliveries must be immediately and thoroughly inspected, then quickly and correctly stored. If food is unsafe when received, there is no way to make it safe to serve later.

When accepting food deliveries, use these general guidelines to ensure food arrives in a safe condition, and remains so while being checked in and stored:

- Deliveries should be scheduled during off-peak times – not during busy meal periods – so employees have time to carefully examine items and move them quickly into storage. It is difficult to devote the proper care and attention to this step during busy service times.
- Speak to a manager or supervisor about the specific procedures where you work, including who is responsible for accepting deliveries, rejecting questionable items, and safely storing food.
- Ensure TCS foods have been transported under proper refrigeration or frozen conditions.
- While unloading, ensure that all food items have been transported for delivery in clean conditions. Check food packaging and the delivery vehicle for signs of insect or rodent activity. These pests carry disease-producing bacteria and parasites that can contaminate food.
- Ensure that non-food items, such as cleaning chemicals, are safely packaged and appropriately separated from food to prevent contamination during transit.
- Carefully inspect all cartons and containers – broken, crushed or otherwise damaged packaging may be contaminated and should not be accepted.
- Open sealed boxes and inspect individual food items.
- Using a calibrated food thermometer, check refrigerated food temperatures to verify they are received at 41°F or lower.
- Frozen food should be delivered frozen solid. Partially thawed food can lose quality and freshness, or worse allow harmful microorganisms to multiply. Reject frozen foods with ice crystals or signs of thawing.
- Keep the receiving area secure, clean and well-lit.

WHEN THE DELIVERY ARRIVES

General guidelines when receiving food deliveries:

Schedule deliveries during slow periods (not at lunch time) when food products can be carefully examined and moved quickly into storage.

Check temperatures in refrigerated shipments, particularly frozen foods which should be delivered in a freezer section or freezer truck.

Sample random food containers and check contents for damage, contamination and possible unacceptable food quality.

Observe the condition of the delivery truck; mud, dirt, water, oil stains, or foul odors, may indicate that food products inside were exposed to contaminants while in transit. Also, check for signs of insect or rodents. These pests can be carriers of disease and parasites.

Reject products if cartons or containers are broken, crushed or otherwise damaged as their contents may be contaminated.

Beware of carriers that include non-food items in the shipment. Non-food items like chemicals may contaminate food products.

Maintain the receiving area clean and well lit.

Be sure to inspect "key drop," or after hours deliveries, immediately upon arrival the next business day.

Inspecting and Accepting Deliveries

When accepting deliveries, use your sense of touch, smell and sight to help get the job done quickly and efficiently. Judge delivered food items for acceptable quality. If it smells, looks, or feels wrong, reject it.

Reject food when:

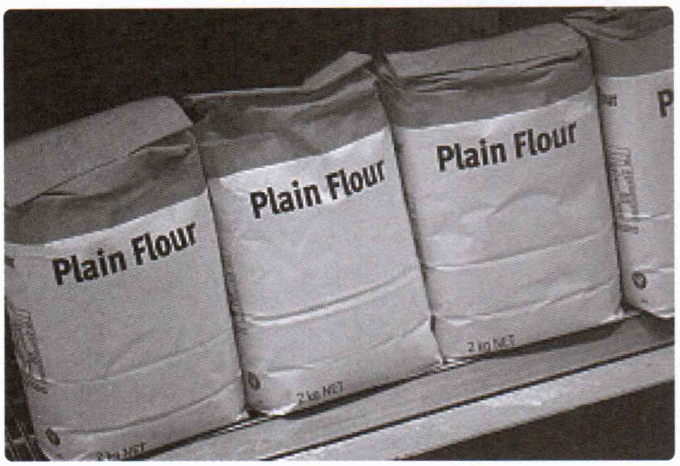
- Signs of pests are present - live or dead insects, cartons looked chewed, etc.
- Ice crystals have formed inside or on frozen food packaging
- Containers are torn, broken or damaged
- Expiration / use-by dates have passed
- Dry goods packaging have visible liquid damage or feel wet.

Using the temperature verification techniques from Chapter 5 of this manual, check food temperatures upon delivery using the chart below and verify critical limits are met then quickly get all foods into to storage where they will be held at 41°F or lower.

FOOD TYPE	RECEIVING TEMPERATURE
Meat	Receive at 41°F or lower
Poultry	Receive at 41°F or lower
Fish	Receive at 41°F or lower
Eggs	Receive at ambient air temperature of 45°F or lower, check for quality and clean condition
Dairy products	Receive at 41°F or lower; check the expiration or use-by date
Shellfish, live	Receive on ice, at an air temperature of 45°F or lower, with an internal temperature below 50°F
Shellfish, prepared	Receive at 41°F or lower
Crustacea, live	No temperature requirement; check for quality and live condition
Crustacea, prepared	Receive at 41°F or lower
Packaged TCS food	Receive at 41°F or lower
Produce, whole	No temperature requirement; check for quality and fresh condition
Produce, cut or prepared	Receive at 41°F or lower
Frozen food	Receive frozen solid; check for ice crystals or signs of thawing

If your job responsibilities include receiving and inspecting food deliveries, ask your employer how to handle deliveries that are of unacceptable quality.

Safe Food Storage



Establishments must quickly check food deliveries to ensure invoices match actual goods, confirm goods are of acceptable quality, and store foods into the appropriate refrigerated, frozen or dry storage area. Ensure all storage areas are clean, secure, and holding foods at proper temperature.

- **Protect** - all food while being transported, stored, prepared, held, displayed, or served must be protected against contamination. Store food only in secure, protected areas designed and intended for food storage. Never store food in restrooms, utility rooms, garbage areas, or public spaces and hallways.
- **FIFO** - stands for "First In, First Out," and is a common method of stock rotation. It means using food products in the order in which received, so the oldest inventory is always used first. To ensure proper stock rotation, label all foods upon delivery with the received date.
- **Stocking** - be careful to load food on to slotted shelves so that air easily circulates and it keeps food at correct temperature. Tightly packed shelves can insulate food and prevent proper storage temperatures. Store all food products a minimum of six inches above the floor, on clean shelves or racks, and allow space between food items. Allow clearance between the stored food and walls and ceiling.
- **Containers** - keep stored foods in the original packaging whenever possible. When moving into working containers for storage or use, take care to safely transfer food to a clean, food-grade container and label the container with a common food name, and the date it must be discarded.
- **Separate** - be very careful to separate raw foods and ready-to-eat foods, and store them so that raw food cannot cross-contaminate ready-to-eat food. Store all raw foods below or away from cooked or ready-to-eat foods. Separate raw meat, poultry and seafood from unwashed and ready-to-eat fruits and vegetables. This must be done to prevent cross-contamination during storage, preparation, holding and display.

Correct food storage is critical to safely operating any restaurant or foodservice establishment. Consistent standards for cleanliness, temperature control, storage conditions, and stock rotation must be maintained. Failure to do so can cause not just costly food quality problems like contamination and spoilage, but may also pose serious danger to customers from insect and rodent infestation, and other foodborne illness risks.

BEST EMPLOYEE PRACTICE

Deliveries

Food should be received during slower business periods so that it can be thoroughly inspected for signs of contamination prior to acceptance and be stored quickly so that it doesn't spend excessive time in the Temperature Danger Zone. If it appears as though food is frequently delivered during busy periods, notify your manager or supervisor so that corrections in delivery times can be made.

CHAPTER FOUR REVIEW QUIZ

True or False

1. T_____ F_____ It is not necessary to label stored food with a date.
2. T_____ F_____ FIFO is a foodborne illness.
3. T_____ F_____ Lunch rush is a good time for deliveries because lots of employees are on duty.
4. T_____ F_____ If food is unsafe when received; it can be made safe later.

Complete the Sentence

1. Reject food when containers are _____, ice crystals are in packaging or on food, signs of pests are present, use-by / expiration dates have passed and when dry goods are damp or wet.
2. FIFO stands for _____.
3. When food is stored properly, ready-to-eat foods must be stored _____ or away from raw foods.
4. Frozen food should be delivered _____ solid.

Multiple Choice

1. The proper temperature for meat at delivery is:
   a. 45°F or lower.
   b. at room temperature.
   c. 41°F or lower.
   d. ambient (air) temperature of the truck.
2. When inspecting a produce delivery, which of the following is acceptable:
   a. cut produce at room temperature.
   b. produce boxes that are wet and damaged.
   c. produce from a foreign country without a label.
   d. whole produce in good condition at room temperature.
3. A food thermometer is required for each of the following except:
   a. when checking in or receiving food deliveries.
   b. when cooling food for overnight storage after a meal period.
   c. when making a trash run.
   d. when calibrating a thermometer.
4. The receiving area should be well-lighted, secure and _____.
   a. open.
   b. clean.
   c. dirty.
   d. filled with boxes.

CHAPTER 5

CONTROLLING TIME AND TEMPERATURE OF FOOD

Learning safe methods to prepare, cook, store and serve food requires that employees take food safety seriously. Knowing, using, and closely monitoring proper time and temperature controls ensures safe thawing, cooking, cooling, holding and reheating of food.

USING FOOD THERMOMETERS

Because microorganisms can grow quickly in food that is exposed to the Temperature Danger Zone, between 41°F to 135°F, strict adherence to correct time and temperature control is essential to safe storing, thawing, cooking, cooling and holding food. The only sure way to know food temperatures are safe is to check food temperatures frequently. In commercial foodservice, this is done with a calibrated, food thermometer at least once every four hours. Best practice is to check every two hours, so that corrective action can be taken if needed.

There are a number of different types of food thermometers, such as a digital instant read thermistor, thermocouple and infrared laser thermometers. Users should rely on the manufacturer's instructions for proper use and maintenance. For this section, we'll refer to the least expensive and most common type of thermometer: a bimetallic stem or probe thermometer.

The correct use of a food thermometer includes knowing proper techniques to calibrate the thermometer, accurately measuring the internal temperatures of food items, correctly sanitizing the thermometer, and keeping accurate records of food temperatures in a log. Foodservice thermometers must read from 0°F to 220°F.

Calibrate

To ensure accurate temperature measurements, thermometers must be regularly calibrated. Calibrate thermometers using the following steps:

Fill a clean food-grade container with ice and add drinkable water to cover the ice. A drinking glass or small food storage container works well.

Allow the ice water mixture a minute or two to reach minimum temperature and then stir to ensure the temperature is even throughout.

Place the thermometer probe into ice water, fully submerging and covering the tip or sensing area of the stem. The sensing area is clearly marked with dimples. Leave the thermometer submerged in the ice water for 30 seconds, allowing the indicator needle to stop moving. The indicator needle should point directly at 32°F.

If the needle does not indicate 32°F, use pliers to securely grasp the adjusting nut located below the dial and gently rotate the adjusting nut until needle reads 32°F.

Measure

To take a food temperature reading, completely insert the thermometer stem or probe into the center or thickest part of the food item, and away from bones or gristle. Soups, sauces, and other liquids should first be thoroughly stirred to ensure the temperature is even throughout before checking temperatures. Allow the needle to reach the maximum or minimum food temperature then stop moving. Wait 15 seconds and then read and record the food temperature.

Sanitize

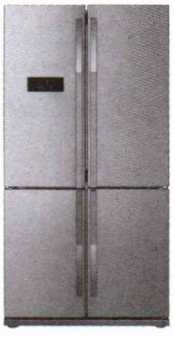
Ideally, the thermometer should be washed, rinsed and sanitized after each use. It is also acceptable to sanitize the thermometer between uses by swabbing with a disposable alcohol wipe.

Record Keeping

Correct temperatures are only half of the two main critical controls that keep food safe. The other main component is time. Therefore, check temperatures every two hours as a best practice to allow time for corrective action. To ensure both temperature and time control, keep a written record of food temperatures each time they are measured, and document that critical limits are met or corrective actions are taken.

SAFE METHODS FOR THAWING FOOD

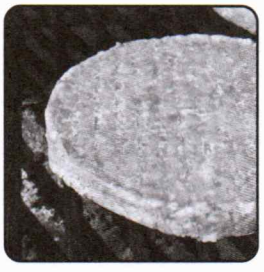
Thawing is a critical step in food preparation and when done improperly, increases foodborne illness risk. Never thaw frozen food by placing it on the counter at room temperature. To prepare frozen food for service, or as an ingredient in other preparations, safely thaw the item using one of these four procedures:



Refrigeration: The safest method for thawing is to place frozen food in refrigerated storage, at 41°F or lower, until thawed. Place the food in a container sufficient to capture and hold any liquid that the food will release during thawing, and place below all other foods in storage, especially ready-to-eat items, to prevent cross-contamination.

Cold Water: Place frozen food into a container and place under running, potable (drinking) water at 70°F or lower so the item is covered and submerged with running water until thawed. Running water allows loose particles to run over the edge of the container and down the drain. Be certain to clean and sanitize the prep sink and surrounding splash area after thawing, and before placing any other food item in the prep sink.

Microwave: Place frozen food in a microwave oven, and select power and time settings specifically for thawing. This method should be used only if the food will be immediately and completely cooked after thawing. Be certain to stir or turn food frequently during thawing to ensure even temperature distribution.



Cooking: Cook frozen food items and allow the item to thaw during the cooking process. Be sure to cook food completely before service.

Thawed food must be completely cooked to its correct temperature, or stored under refrigeration so that its internal temperature is 41°F or lower within four hours.

RECOMMENDED MINIMUM INTERNAL COOKING TEMPERATURES

Cooking foods to recommended internal cooking temperatures will destroy most harmful microorganisms. Temperature requirements differ according to each type of food. Each food item must be cooked until reaching the recommended minimum internal temperature and provide correct exposure time to minimum temperature, as measured at the thickest part of the item. Remember cooking will not destroy toxins.

Internal Cooking Temperatures Chart

Food is recommended to be cooked to the internal temperature as indicated below in order to be considered safe for consumption.

Food Type

FOOD TYPE	MIN. INTERNAL TEMPERATURE	METHOD
Plant foods, noodles, and rice (that will be hot-held for service)	135°F	Held
Commercially prepared, ready-to-eat food (that will be hot-held for service)	135°F	Held
Eggs (for immediate service)	145°F	15 seconds
Solid / whole fish	145°F	15 seconds
Solid / whole meat (pork, beef, lamb, commercial game)	145°F	15 seconds
Ground meat and fish	155°F	17 seconds
Injected or mechanically tenderized meat	155°F	17 seconds
Eggs (that will be held for service)	155°F	17 seconds
Solid / whole poultry	165°F	1 second
Stuffing and casseroles	165°F	1 second
Stuffed meats	165°F	1 second
Microwaved potentially hazardous / TCS foods	165°F	*See note
Previously cooked potentially hazardous / TCS foods	165°F	15 seconds

*Stir, then hold for 2 minutes after cooking to establish temperature equilibrium
**Reheating TCS foods must be done rapidly between 41°F and the correct reheating temperature within 2 hours.

Internal Cooking Temperatures for Whole Meat Roasts

Including beef, corned beef, lamb, pork, and cured pork roasts such as ham. Use these requirements also for unused portions of whole meat roasts, cooked as noted above, then reheated.

TEMPERATURE	TIME IN MINUTES
130°F	112
131°F	89
133°F	56
135°F	36
136°F	28

TEMPERATURE	TIME IN MINUTES
138°F	18
140°F	12
142°F	8
144°F	5
145°F	4

It is important to cook foods to their recommended internal cooking temperature to destroy microorganisms.

Poultry
Cook to 165°F for
1 second

Ground Meats
Cook to 155°F for
17 seconds

Solid/Whole Meats
Cook to 145°F for
15 seconds

Fish/Eggs
Cook to 145°F for
15 seconds

Food Cooked in a Microwave

When cooking food in a microwave, all foods regardless of type, must be cooked to an internal temperature of 165°F. After cooking, allow mircowave-cooked foods to stand for two minutes. Stir foods and take a temperature reading to ensure food is evenly heated throughout.

Food for Children

The US FDA Food Code recommends that all foods offered on a children's menu be served fully cooked. For example, a hamburger offered on a children's menu should be cooked well-done, or to 155°F for 17 seconds.

NON-CONTINUOUS COOKING

To improve speed of service, many foodservice operations partially cook food items prior to peak service times. Whether "par-cooked," or "pre-cooked," the process is now covered in the US FDA Food Code. For raw meats cooked using a "non-continuous" cooking process, the process is:

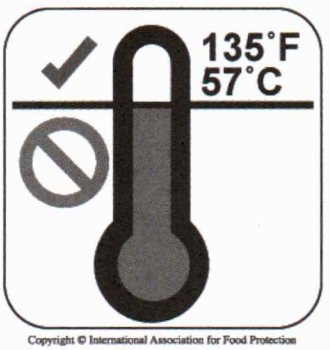
1. Cook initially for no longer than 60 minutes
2. Cool in accordance with potentially hazardous / TCS food requirements
3. Hold at 41°F for non-frozen food or 0°F for frozen food
4. Reheat all components of the final food product to their specific minimum internal cooking temperature and correct exposure to temperature
5. Any food not served immediately or hot-held for service must be properly cooled and stored

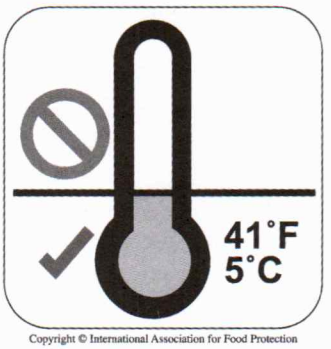
Note: The regulatory authority will require a written plan approved in advance, prior to allowing this process in the foodservice operation. The plan must be maintained and readily available in the foodservice establishment.

Cooking is a critical step in the flow of food. The safety of the cooked or ready-to-eat (RTE) food must be maintained until service. Once cooked correctly, food should be served, properly hot-held, or cooled immediately for cold storage

HOT & COLD HOLDING READY-TO-EAT FOOD

Holding is the term used when food is ready to serve, but not immediately served. It can be either hot or cold holding. To ensure correct temperatures, foods being held must have temperatures checked and be monitored by food handlers at all times during the holding process. After TCS foods have been cooked correctly, be sure to hold foods at proper temperatures to minimize the growth of microorganisms. Foods allowed to fall into the Temperature Danger Zone, between 41°F and 135°F, can allow microorganisms to grow to a level that will cause illness or result in toxic by-products. Either case will result in food that may cause foodborne illness when consumed.

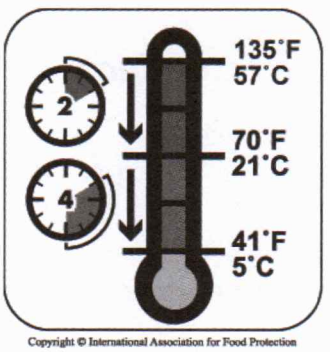




Foods being held for service must have temperatures checked at least every four hours to ensure compliance with temperature requirements. Cold foods must be held at 41°F or lower and hot foods must and 135°F or higher. A best practice for time and temperature control is to check temperatures of TCS foods being held for service at least every two hours. This allows time for corrective action should food temperatures fall into the Temperature Danger Zone.

COOLING FOOD PROPERLY

Cooling food is not as simple as placing the item in a refrigerator. Never place hot food directly into cold storage. Using correct cooling techniques will minimize the amount of time ready-to-eat food spends in the Temperature Danger Zone and help keep food safe.



The Two-Stage Cooling Method

Two-stage cooling refers to the process of cooling food to safe storage temperatures in two steps.

The first step, or Stage 1, requires the hot food item be cooled from 135°F to 70°F within two hours, and Stage 2 requires the food item be cooled from 70°F to 41°F or lower within an additional four hours. The total time for both stages combined may not exceed six hours.

If the food is not cooled to 70°F or lower within the first two hours, the food must be immediately reheated to 165°F for fifteen seconds in less than two hours, or thrown away.

The Temperature Danger Zone, between 41°F to 135°F, is the temperature range that allows harmful bacteria to rapidly multiply in food. The most dangerous part of the Temperature Danger Zone is the range between 70°F to 125°F. Therefore, using approved cooling techniques help to move food rapidly through these temperatures to keep food safe.

Cooling Techniques

The following are techniques that will result in quickly and safely cooling food for cold storage.

Refrigerator walk-ins or reach-ins are designed to keep cold food cold, not make hot food cold. Refrigerators cannot cool hot food to 41°F within the required cooling time requirements. Also, placing hot food into refrigeration can raise the temperature of other TCS foods in storage into the Temperature Danger Zone causing them to become unsafe. Therefore, use the following techniques to safely cool food for storage.

Be certain to reduce food into small portions or pieces prior to cold storage to assist in cooling food more rapidly.

A blast chiller - place hot food into the chiller until cooled. This is one of the fastest and safest methods for cooling food. Monitor temperature and time to ensure cooling requirements are met.

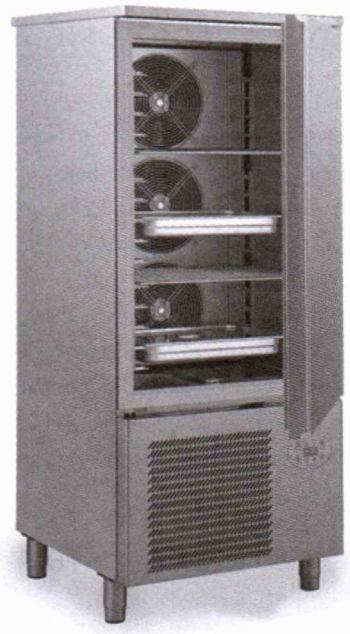
Ice bath - place hot food into a container and submerge it into ice water. When appropriate, stir foods frequently to release heat and reduce the temperature evenly throughout. Monitor temperature and time to ensure cooling requirements are met.

Chill sticks or paddles - use these hollow containers, constructed of durable food-grade plastic, by filling with water and freezing or filling with ice. When ice paddles or sticks are inserted into bulk foods, such as soups and sauces, the food temperature is quickly lowered. Monitor temperature and time to ensure cooling requirements are met.

Small batch cooling - divide food into smaller portions and store in shallow metal pans. Use an ice bath to cool divided food down to 70°F within two hours, then place into refrigeration. Monitor food temperature to ensure the food reaches 41°F according to two-stage cooling method.

Use ice as an ingredient whenever possible.

Use containers that facilitate heat transfer.



Blast chiller

DATE MARKING

All ready-to-eat or TCS food prepared in-house must be date marked before storing and is good for up to seven days. Include the day it was made or prepared as Day One.

Ice paddle

REHEATING FOOD PROPERLY

Food that has been previously cooked and properly cooled and stored may be prepared again for service if properly reheated. When reheated food will be hot-held, the item must be heated to an internal temperature of 165°F for 15 seconds, in two hours or less. This time limit minimizes exposure to the Temperature Danger Zone.

BEST EMPLOYEE PRACTICE

The Temperature Danger Zone

Employees must know the temperature ranges that make up the Temperature Danger Zone, between 41°F and 135°F. Employees must ensure that food spends as little time as possible in the Temperature Danger Zone. By following guidelines for proper thawing, cooking foods to their recommended minimum internal temperature and correct temperature exposure, cooling food according to the two-stage method, and always reheating food to no less than 165°F, employees are doing their part to ensure they are serving safe food.

CHAPTER FIVE REVIEW QUIZ

True or False

1. T_____ F_____ When using two-stage cooling, hot food must measure 70°F or lower within the first two hours.
2. T_____ F_____ Food on menus for children must be cooked well-done.
3. T_____ F_____ All microwave foods must be cooked to 165°F, stirred, and then held for two minutes to ensure that the heat is evenly distributed throughout.
4. T_____ F_____ To ensure accurate temperature measurements, thermometers must be regularly calibrated.

Complete the Sentence

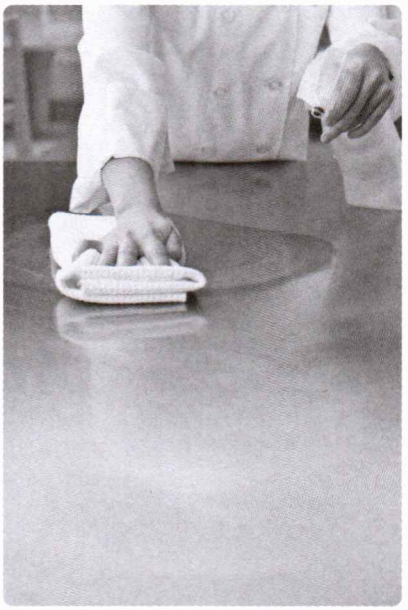
1. To measure the temperature of a food, completely insert the stem of the _____ into the center of the thickest part of the food item.
2. Four safe methods of cooling foods are: ice bath, small batch cooling, chill sticks or paddles and a _____ chiller.
3. _____ thaw food at room temperature.
4. Cooking food to its recommended internal _____ will destroy most harmful microorganisms.

Multiple Choice

1. The Temperature Danger Zone is between:
   a. 39°F to 135°F.
   b. 40°F to 135°F.
   c. 35°F to 135°F.
   d. 41°F to 135°F.
2. All of the following are safe ways to thaw frozen food except:
   a. Placing the frozen food in a refrigerator at 41°F or lower.
   b. Placing the frozen food under drinkable running water at 70°F or lower.
   c. Carefully covering the frozen food then place in a sanitized container at room temperature.
   d. Cooking the frozen food as part of a regular cooking procedure.
3. Poultry must be cooked to a minimum internal cooking temperature of:
   a. 165°F for 1 second.
   b. 185°F for 1 second.
   c. 120°F for 30 seconds.
   d. 70°F for 15 seconds.
4. To correctly use a thermometer, it must be calibrated and _____
   a. chilled.
   b. reheated.
   c. sanitized.
   d. insulated.

CHAPTER 6

CLEANING & SANITIZING



Cleaning and sanitizing are critical responsibilities for food establishments. To ensure that equipment and food preparation surfaces are safe, and to minimize foodborne illness risk, every establishment should have a master cleaning schedule for each shift, and also a "deep cleaning" schedule for each day. All employees must be properly trained in sanitation and committed to food safety. Cleaning and sanitizing are critical to food safety and have different roles; knowing the difference between the two and how to correctly perform each process will help ensure safe food for customers. Cleaners and sanitizers must be provided and available to all employees during all hours of operation.

Cleaning is the removal of food residues, dirt and grease. Proper cleaning is the first step in the process of making food contact surfaces like plates, utensils, glassware, cutting boards and cookware safe for use.

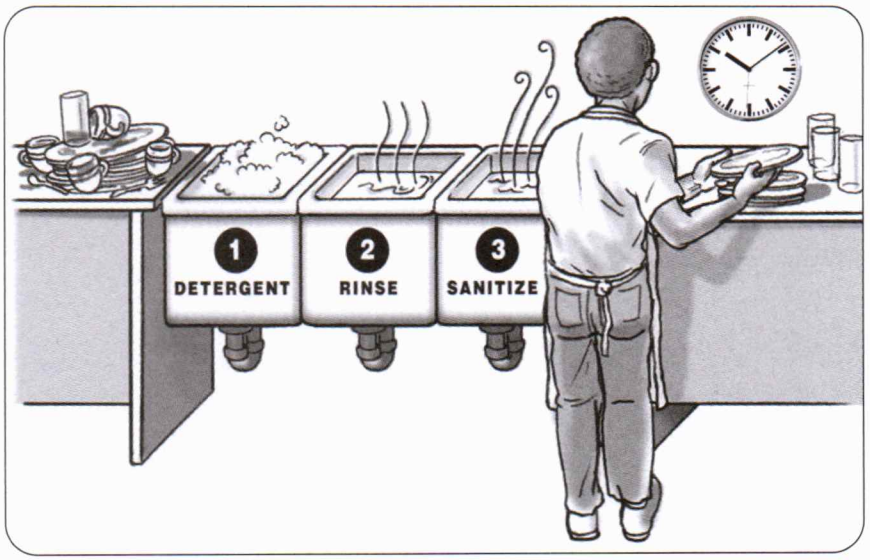
Sanitizing reduces harmful microorganisms to safe levels. This is done through the use of a chemical sanitizing solution or heat. Training about the correct use of sanitizers and other chemicals used in your position should be explained by your manager as part of your employer's Hazard Communication program and job duties.

Sanitizing Equipment and Food Contact Surfaces

Food contact surfaces and equipment such as prep tables, cutting boards, slicing machines, utensils, and refrigeration door and drawer handles must be cleaned and sanitized often, typically several times each day. Equipment must not only be cleaned and sanitized, but must be maintained and in good repair to prevent physical contamination and cross-contamination.

If an individual becomes ill on premise and discharges vomit or diarrhea, follow your company's policies for controlling the spread of these contaminants. These procedures must address specific actions to minimize contamination to employees, food and the establishment. Employees must take personal precautions when cleaning up vomit and diarrhea by using gloves, and masks when necessary, to protect themselves from these contaminants.

CLEANING AND SANITIZING TECHNIQUES



Non-food contact surfaces and equipment must be regularly cleaned and in good condition.

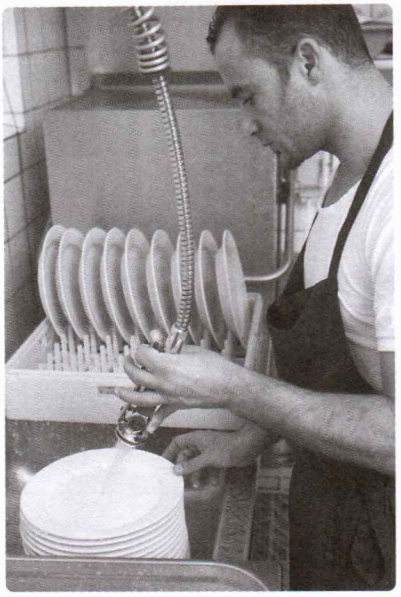
Manual / Three Compartment Sink

To manually clean and sanitize in a three compartment sink, follow these steps:

1. Scrape
2. Wash
3. Rinse
4. Sanitize*
5. Air-dry

* NEVER RINSE ITEMS AFTER SANITIZING

Warewashing Machines



The two primary types of commercial dish machines use high temperature water or chemical solutions for sanitizing. It is essential to follow the manufacturer's instructions and recommendations for proper use. These steps apply to both types of machine:

1. Begin by removing any loose or heavy soil and dirt by scraping and rinsing surfaces.
2. Load machine so all surfaces of items will be sprayed by the wash, rinse and sanitize cycles. Do not overload the racks or pack items too closely together.
3. Run the items through the cleaning cycle following the manufacturer's instructions.
4. Remove racks from the machine. Allow racks to drain and air-dry on a clean, sanitized surface. Only touch clean wares and equipment when dry, and with correctly washed or gloved hands.
5. Warewashing machines should be checked and cleaned frequently to ensure proper operation. Be sure all manifolds and water jets are free of food debris, lime or calcification build up, and open and fully functioning.

Chemical Sanitizing: Solutions made with chlorine, iodine or quaternary ammonium are approved for sanitizing in a foodservice operation, when used according to directions for correct water temperature and concentration. Follow label directions when using any chemical sanitizing product. Always use a test kit to measure and maintain correct concentration. Do not rinse surfaces after sanitizing and do not wipe dry. Always allow clean items to air-dry.

Hot Water Sanitizing: For heat sanitizing, the final rinse cycle water temperature should be 180°F for moving racks and 165ºF for stationary racks. Be certain that the machine is maintaining the proper temperature. If the temperature is too low, then it is not sanitizing. If the temperature is too high, the water will evaporate before it sanitizes. High-temperature machines should be checked frequently to verify water temperatures.

When manually sanitizing dishes and equipment, items must be completely immersed in water of at least 171°F for at least 30 seconds. Water temperature must be continually checked and replaced if not at least 171°F. Remove items from the sanitizing solution and allow to drain and air-dry on a clean, sanitized surface. Be sure to wash hands before handling dry sanitized dishes.

Cleaning and Sanitizing Fixed or Clean-in-Place Equipment

Manufacturers will typically provide instructions for cleaning. However, the following are good guidelines should instructions not be available.

1. Do not disassemble equipment or begin cleaning unless the power is disconnected.
2. Disassemble equipment, and manually or machine wash, rinse and sanitize any individual removable parts.
3. Using manual washing and sanitizing steps: wash, rinse, and sanitize all food contact surfaces of the equipment.
4. Wash, rinse, and sanitize all non-removable surfaces of the equipment.
5. Allow all parts to air-dry.
6. Reassemble the equipment with clean hands.
7. Re-sanitize any food contact surfaces that were touched during reassembly.

Sanitizer Buckets and Wiping Cloths

Always keep cleaning cloths separated by what they are used for – use different cloths to clean food contact surfaces and non-food contact surfaces. Between uses, rinse and store cloths in sanitizing solution, with separate buckets clearly labeled for food surfaces or non-food contact surfaces. Do not use sponges on food contact surfaces such as dishes, utensils, and cutting boards. Use test kits to ensure proper concentration of sanitizer solutions.

Remember, always review the concentration levels recommended by the sanitizer's manufacturer. If there is a conflict between the chart in this chapter and the manufacturer's guidelines, use the guidelines established by the manufacturer.

Manual & Mechanical Sanitization Levels

MINIMUM CONCENTRATION (PARTS PER MILLION - PPM)	pH 10.0/MINIMUM TEMPERATURE	pH 8.0/MINIMUM TEMPERATURE	CONTACT TIME (SECONDS)
Chlorine: 50 - 99 ppm	100°F (38°C)	75°F (24°C)	7
Iodine: 12.5 to 25 ppm	pH ≤ 5.0 or per label and H_2O is at least 68°F (20°C)		30
Quaternary Ammonium: per label	Water hardness ≤ 500 ppm or per label and H_2O is at least 75°F (24°C)		30
Hot water sanitizing in a three compartment sink requires a water temperature of 171°F and items immersed for at least 30 seconds.			

General Cleaning

It is necessary to clean spills as they occur to maintain general sanitation standards and safety in the establishment. When cleaning floors, use a mop and bucket with a cleaning solution mixed according to label directions and be sure to post warning signs for wet floors.

When cleaning floors, walls and ceilings, be sure food is protected. Reduce risk of contamination by cleaning after closing or between shifts. Protect food contact surfaces from contamination by covering them as appropriate during cleaning. Use only dust-less methods of cleaning floors and walls, such as vacuum cleaning or wet cleaning.

Guest areas, especially floors, must be thoroughly cleaned as frequently as needed to maintain safety and sanitation.

If a guest becomes ill by vomiting or having a diarrheal event, do not handle anything until you have spoken to the manager-on-duty or supervisor to be certain that you follow your establishment's procedures for this type of situation.

Cleaning Equipment and Chemical Storage

Maintain and store cleaning equipment away from food, utensils or other food contact surfaces. Use a mop sink for cleaning mops and other cleaning tools; never use handsinks, three compartment sinks or food prep sinks. Hang all cleaning tools to dry. Never leave a wet mop in the bucket overnight. Mop water should always be disposed of as sewage and emptied into a floor or mop drain. Never dispose of mop water or sanitizing solutions in a hand, prep or three compartment sink, or out the back door of the building.

To prevent cross-contamination of food, cleaning supplies, equipment, and chemicals should be stored separately and well away from food, dishes, utensils and food preparation areas. All cleaning chemicals, solutions, and compounds must be in their original container or clearly re-labeled in a dispensing or storage container.

BEST EMPLOYEE PRACTICE

Cleaning and Sanitizing

Awareness - detailed attention to cleaning and sanitizing ensures a better environment for food safety. It is also a fundamental step in the prevention of foodborne illness.

Knowledge - discuss the correct use of chemicals with your supervisor and post sanitizing times, temperatures and concentrations on the walls in the dishroom to serve as a visual reminder.

CHAPTER SIX REVIEW QUIZ

True or False

1. T_____ F_____ Sanitizing is the first step in creating a safe food contact surface.
2. T_____ F_____ Cleaning involves removing dirt, food residue and grease.
3. T_____ F_____ After sanitizing, dishes should always be dried with a clean towel.
4. T_____ F_____ Cleaning and sanitizing are critical to food safety in foodservice operations.

Complete the Sentence

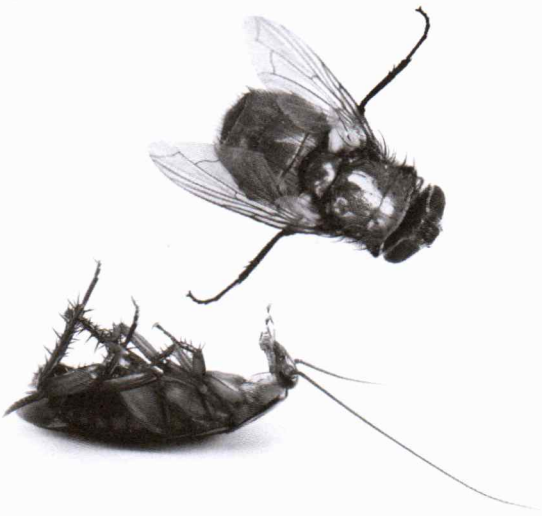
1. _____ involves the removal of food residue, dirt and grease.
2. _____ is the step that eliminates harmful microorganisms on a food contact surface.
3. The two ways to sanitize surfaces and equipment in foodservice establishments are with _____ or _____ solutions.
4. To prevent _____ of food, cleaning supplies, equipment and chemicals should be stored separately and well away from food, dishes, utensils and food contact surfaces.

Multiple Choice

1. Which of the following must be cleaned and sanitized?
   a. Utensils
   b. Food prep surfaces
   c. Clean-in-place equipment
   d. All of the above
2. Which of the following are approved for sanitizing food contact surfaces and equipment?
   a. Zinc
   b. Mercury
   c. Chlorine
   d. All of the above
3. Sanitizing is done to reduce what?
   a. Drying time
   b. Microorganisms
   c. Platelets
   d. Dirt particles
4. Proper three compartment sink cleaning procedures are:
   a. scrape, wash, rinse, sanitize and air-dry.
   b. wash, rinse sanitize, towel dry.
   c. scrape, rinse sanitize, towel dry.
   d. wash, rinse, air-dry.

CHAPTER 7

PEST CONTROL



Pests and insects carry and spread microorganisms that can contaminate food and food contact surfaces resulting in the transmission of diseases. Pest control must be a top priority for all employees to help maintain a sanitary foodservice facility.

Common insects and pests, which are attracted to foodservice establishments, include:

- Rodents - rats, mice, squirrels
- Insects - flies, cockroaches, weevils, silverfish, wasps, ants
- Birds - seagulls, crows, pigeons, sparrows

INSPECTING FOR PESTS

Routine self-inspections for pests are necessary to minimize risk of pest infestation. Foodservice employees should carefully inspect all food deliveries and report observations of signs of pests. Be sure to look in storage rooms, areas around the receiving area and back door, trash receptacles, and any dark, undisturbed area.

When inspecting the premises, look for these signs:

- Live or dead rodents, insects, eggs or larvae
- Rodent or insect droppings
- Damage to boxes or cases of food; wood, plaster, cardboard
- Gnaw or chew marks directly on food packaging
- Food spills in storage areas
- Unusual odors - associated usually with mice or cockroaches
- Tracks or tail marks in dust or powder (such as flour)
- Black, greasy-looking smears or marks on walls, pipes or counters

PREVENTING PESTS

Pest control can be easily maintained with careful attention to the facility and consistent ongoing sanitation and maintenance practices. No one wants to work or eat in a place infested with pests. The easiest way to combat pests is to prevent them from entering the operation. Following these simple steps can prevent pests from becoming a problem in a foodservice establishment:

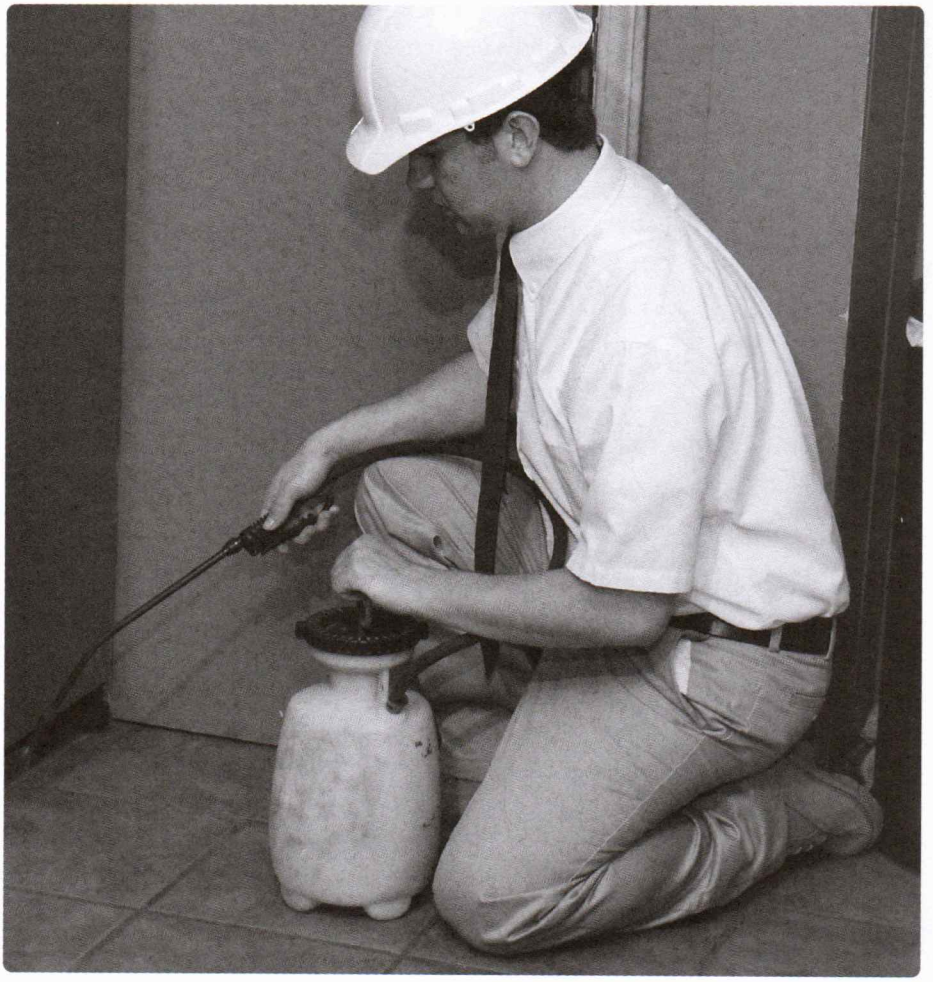
- Carefully inspect all deliveries for pests
- Refuse deliveries containing insects or showing signs of pests
- Dispose of trash properly and frequently
- Keep trash cans and dumpsters areas clean and free of debris
- Be sure all trash gets inside the dumpsters, and keep dumpster doors closed
- Keep screens on windows and vents in good repair
- Be sure exterior doors have self-closing devices, door-sweeps, and tightly seal
- Never prop exterior doors open
- Cover all holes and openings around pipes, or other exterior accesses that can invite pests in
- Cover exterior and roof ventilation pipes and ducts with approved screens
- Seal wall and floor cracks

- Use a professional pest control service
- Be sure restrooms are clean and pest free, and enclosed to minimize pests
- Frequent sanitation and housekeeping should be performed during every shift

BEST EMPLOYEE PRACTICE

Pest Control

If you observe any uncovered openings to the outside of the food establishment, be certain to notify your manager and supervisor. The best way to control pests is to keep them out. Immediately notify a manager or supervisor if any risk factors or signs of pests are observed.



CHAPTER SEVEN REVIEW QUIZ

True or False

1. T_____ F_____ Pests carry microorganisms that can contaminate food and food contact surfaces.
2. T_____ F_____ Pest control is only the manager's responsibility.
3. T_____ F_____ Pest control includes tight sealing, self-closing exterior doors.
4. T_____ F_____ Rodents, insects and birds are considered pests.

Complete the Sentence

1. Regular self _____ of the establishment are necessary to look for signs of pests.
2. Carefully inspect all food deliveries for _____ of pests.
3. If you see damage to food packaging, gnaw marks and rodent or insect droppings, your establishment may have a _____ infestation.
4. It is very important to remove _____ from the establishment so as not to feed pests.

Multiple Choice

1. When self-inspecting for pests, a sign that pests are present is:
   a. the season is spring or summer.
   b. the back door does not tightly seal.
   c. black, greasy-looking marks on walls, pipes or counters.
   d. the dumpster has not been emptied.
2. Pests can contaminate food and food surfaces by spreading:
   a. fur.
   b. microorganisms.
   c. amoebas.
   d. arthropods.
3. If an employee observes signs of pests, he or she should:
   a. tell a friend.
   b. tell a coworker.
   c. tell a manager.
   d. be quiet and keep working.
4. Pests can be easily controlled with careful and consistent attention to _____ and maintenance.
   a. sanitation
   b. temperature control
   c. time management
   d. none of the above

TEST YOUR KNOWLEDGE

1. What is FIFO?
    a. A method of stock rotation that uses products in the order they are received
    b. Using products fast
    c. The employee with the highest food sales
    d. Dealing with customer service problems

2. Which of the following is not a TCS food?
    a. Ground beef
    b. Shellfish
    c. Sliced cantaloupe
    d. Salt

3. What is the recommended minimum internal cooking temperature for poultry, reheated or stuffed meats?
    a. 145°F
    b. 135°F
    c. 165°F
    d. 155°F

4. Which of the following is acceptable for employee handwashing?
    a. A food preparation sink
    b. A designated handwashing sink
    c. Rinsing hands in a bucket filled with sanitizing solution
    d. The mop sink by the back door

5. What is the minimum internal holding temperature for hot food?
    a. 165°F
    b. 155°F
    c. 145°F
    d. 135°F

6. What can happen if raw foods come into contact with cooked ready-to-eat foods?
    a. The raw food will cook
    b. Food preparation time will decrease
    c. Cross-contamination may occur
    d. Time / temperature abuse may occur

7. Which is the best way to prevent cross-contamination?
    a. Not eating at work
    b. Frequent and proper handwashing
    c. Removing jewelry before work
    d. Take a shower after work

8. Why are employees prohibited from eating while working?
    a. Employees sell more food if they are hungry
    b. It's rude
    c. It's unprofessional
    d. Eating can contaminate hands, which can cross-contaminate to a customer's food

9. Which of the following methods is acceptable for drying hands?
    a. A towel from the sanitizer bucket
    b. An apron
    c. A Single use disposable paper towel
    d. Wiping hands on clean pants

10. What should an employee do first before cleaning the meat slicer?
    a. Wear gloves
    b. Disconnect the power
    c. Call a manager
    d. Take a break

11. What temperature must plain, potable hot water be for use as a sanitizer to kill microorganisms?
    a. 145°F
    b. 171°F
    c. 75°F
    d. 41°F

12. What is the minimum cooking temperature required to destroy potential microorganisms in ground beef?
    a. 135°F
    b. 155°F
    c. 165°F
    d. 130°F

13. What jewelry may be worn in food preparation areas?
    a. Watches
    b. A solid metal band
    c. Earrings
    d. All of the above

14. Signs of pests may include which of the following?
    a. Torn packages in dry storage
    b. Dropping that look like black pepper
    c. Black, greasy-looking marks on baseboards
    d. All of the above

15. All of the following reduce cross-contamination except?
    a. Frequently wipe food contact surfaces with a sanitizer solution
    b. Store raw food on the top shelf above ready-to-eat food
    c. Promptly remove all trash from the establishment
    d. Bathe and put on clean work clothes before work

CHAPTER QUIZ ANSWER KEY

CHAPTER 1

True/False

1. T
2. T
3. F
4. T

Complete the Sentence

1. Four (4)
2. discarded / thrown away
3. biological, chemical physical
4. hygiene

Multiple Choice

1. B
2. A
3. C
4. D

CHAPTER 2

True/False

1. T
2. T
3. F
4. T

Complete the Sentence

1. TCS
2. Foodborne
3. manager
4. bacteria

Multiple Choice

1. D
2. D
3. D
4. B

CHAPTER 3

True/False

1. F
2. F
3. T
4. T

Complete the Sentence

1. bandage
2. stocked
3. wash
4. hands

Multiple Choice

1. D
2. D
3. C
4. D

CHAPTER 4

True/False

1. F
2. F
3. F
4. F

Complete the Sentence

1. damaged
2. first in, first out
3. above
4. frozen

Multiple Choice

1. C
2. D
3. C
4. B

CHAPTER 5

True/False

1. T
2. T
3. T
4. T

Complete the Sentence

1. thermometer
2. blast
3. Never
4. temperature

Multiple Choice

1. D
2. C
3. A
4. C

CHAPTER 6

True/False

1. F
2. T
3. F
4. T

Complete the Sentence

1. Cleaning
2. Sanitizing
3. heat, chemical
4. cross-contamination

Multiple Choice

1. D
2. C
3. B
4. A

CHAPTER 7

True/False

1. T
2. F
3. T
4. T

Complete the Sentence

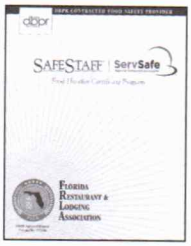
1. inspections
2. signs
3. pest
4. garbage

Multiple Choice

1. C
2. B
3. C
4. A

SELF TEST ANSWER KEY

1.	A	Chapter 4
2.	D	Chapter 2
3.	C	Chapter 5
4.	B	Chapter 3
5.	D	Chapter 5
6.	C	Chapter 1
7.	B	Chapter 1
8.	D	Chapter 3
9.	C	Chapter 3
10.	B	Chapter 6
11.	B	Chapter 6
12.	B	Chapter 5
13.	B	Chapter 3
14.	D	Chapter 7
15.	B	Chapter 1



SAFESTAFF® FOOD HANDLER TRAINING PROGRAM ORDER FORM

Florida Restaurant & Lodging Association

Personal Information:

Contact Name _____ State _____ Zip _____

Company _____ Phone _____

Address _____ Fax _____

City _____ Email _____

SafeStaff Employee Food Handler Training Program

LANGUAGE	PROGRAM	QUANTITY	PRICE	TOTAL
❑ English	Book‡		$10.00*	$
❑ Spanish	Book‡		$10.00*	$
❑ Chinese	Book‡		$10.00*	$
❑ Creole	Book‡		$10.00*	$
❑ English	Online		$15.00	$
❑ Spanish	Online		$15.00	$
		Subtotal		$
		Sales Tax*		$
		Shipping‡		$
		Grand Total		$

*Sales Tax Applies ‡Shipping and Handling Fees Apply. See chart.

Shipping

1-10 books	$17
11-30 books	$22
31-60 books	$28
61-100 books	$30
101+ books	8% of order

Payment

❑ Check or Money Order Payable to: Florida Restaurant & Lodging Association
❑ Credit Card:

Name as it appears on card _____

Type of Credit Card _____

Card Number _____

Expiration Date (MM/YY) _____ CVC (Verification Code on back of card) _____

Cardholder Signature _____

SAFESTAFF, 230 S Adams Street, Tallahassee, FL 32301 Phone: 866-372-7233 Fax: 850-224-2871 * www.safestaff.org
Dedicated to Protect, Educate and Promote Florida's Hospitality Industry.

SAFESTAFF® | ServSafe National Restaurant Association

FOOD (OR CONDITIONAL) EMPLOYEE REPORTING AGREEMENT

Source: US FDA Model Food Code 2017, Annex 7, Model Forms, Guides, and Other Aids; Form 1-B

The purpose of this agreement is to ensure that foodservice employees notify the person-in-charge when experiencing any of the conditions listed below so that the person-in-charge can take appropriate steps to prevent the transmission of foodborne illness.

I agree to report to the person-in-charge:

1. Future symptoms and pustular lesions:
   a) Diarrhea
   b) Vomiting
   c) Jaundice
   d) Sore throat with fever
   e) Lesions containing pus on the hand, wrist, or exposed skin (such as boils and infected wounds)

2. Future medical diagnosis:
   Whenever diagnosed as being ill with Hepatitis A, *E. coli* (STEC), *Salmonella* Typhi (Typhoid Fever), Nontyphoidal *Salmonella* (NTS), Shigellosis *(Shigella* spp.*)* or Norovirus

3. Future High-risk Conditions:
   a) Exposure to or suspicion of causing any confirmed outbreak of Hepatitis A, *E. coli* (STEC), *Salmonella* Typhi (Typhoid Fever), Nontyphoidal *Salmonella* (NTS), Shigellosis *(Shigella* spp.*)* or Norovirus
   b) A household member is diagnosed with Hepatitis A, *E. coli* (STEC), *Salmonella* Typhi (Typhoid Fever), Nontyphoidal *Salmonella* (NTS), Shigellosis *(Shigella* spp.*)* or Norovirus
   c) A household member attending or working in a setting experiencing a confirmed outbreak of Hepatitis A, *E. coli* (STEC), *Salmonella* Typhi (Typhoid Fever), Nontyphoidal *Salmonella* (NTS), Shigellosis *(Shigella* spp.*)* or Norovirus

I have read (or had explained to me) and understand the requirements concerning my responsibilities under this agreement to comply with:

1. Reporting requirements specified above involving symptoms, diagnoses and high-risk conditions specified;
2. Work restrictions or exclusions that are imposed upon me; and
3. Good hygienic practices.

I understand that failure to comply with the terms of this agreement could lead to action by the foodservice establishment or the food regulatory authority that may jeopardize my employment and may involve legal action against me.

PRINTED NAME OF APPLICANT/FOOD EMPLOYEE: _____

SIGNATURE APPLICANT/FOOD EMPLOYEE: _____ DATE: _____

LICENSE HOLDER'S REPRESENTATIVE: _____ DATE: _____

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FLORIDA RESTAURANT & LODGING ASSOCIATION

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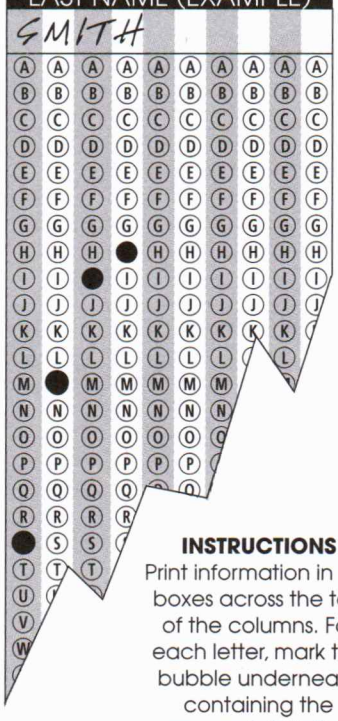
National Restaurant Association™

INSTRUCTIONS

- USE NO. 2 PENCIL ONLY
- ERASE **COMPLETELY** TO CHANGE
- EXAMPLE ○ ○ ● ○

LAST NAME (EXAMPLE)



INSTRUCTIONS

Print information in the boxes across the top of the columns. For each letter, mark the bubble underneath containing the appropriate letter.

LAST NAME

FIRST NAME

CERTIFIED (CPFM) TRAINER'S NAME

EMPLOYEE DOB

MONTH	DAY	YEAR
0 1	0 1 2 3	0 1 2 3 4 5 6 7 8 9

DATE OF TRAINING

MONTH	DAY	YEAR
0 1	0 1 2 3	0 1 2 3 4 5 6 7 8 9

COMPLETE BOTH SIDES OF THIS FORM

PHOTOCOPIES OF THIS FORM ARE NOT ACCEPTED

COMPANY NAME

COMPANY ADDRESS

CITY

STATE

ZIP

BUSINESS PHONE

( )

Upon completion of training, do not fold form and send via traceable mail to:

SAFESTAFF® | ServSafe® National Restaurant Association™

Foodhandler Training Program
230 South Adams Street
Tallahassee, FL 32301
Questions? Please call 866-372-7233

SAFESTAFF® | ServSafe National Restaurant Association

Florida dbpr Department of Business & Professional Regulation

FLORIDA RESTAURANT & LODGING ASSOCIATION

DBPR CONTRACTED FOOD SAFETY PROVIDER

DBPR Approved Program Provider No. 1752486

FOOD HANDLER NAME _____ DATE OF BIRTH _____

has successfully completed the SafeStaff®
Food Handler Training Program

BUSINESS NAME _____

DATE OF TRAINING _____

TRAINER'S NAME _____

EXPIRES (ADD 3 YEARS TO DATE OF TRAINING) _____

TRAINER'S CFPM CERTIFICATE NUMBER _____

DETACH IDENTIFICATION CARD BELOW AND GIVE TO EMPLOYEE. KEEP ORIGINAL CERTIFICATE AND CHECKLIST STUB FOR INSPECTOR IN EMPLOYEE FILE.

Manager Checklist

- ☐ Starting Out with Food Safety
- ☐ Ensuring Proper Personal Hygiene
- ☐ Purchasing, Receiving, and Storing
- ☐ Preparing, Cooking, and Serving
- ☐ Cleaning & Sanitizing
- ☐ Pest Control
- ☐ Major Foodborne Illnesses
- ☐ Test Your Knowledge
- ☐ Learning Activities and Exercises

ID Card Received by Employee _____ EMPLOYEE INITIALS

SAFESTAFF® | ServSafe National Restaurant Association

Florida dbpr Department of Business & Professional Regulation

DBPR CONTRACTED FOOD SAFETY PROVIDER
DBPR Approved Program Provider No. 1752486

FLORIDA RESTAURANT & LODGING ASSOCIATION

FOOD HANDLER NAME _____ DATE OF BIRTH _____

TRAINER'S NAME _____ TRNR CERTIFICATE NO. _____ DATE OF TRAINING _____

BUSINESS NAME _____ EXPIRES (ADD 3 YEARS TO DATE OF TRAINING) _____

SAFESTAFF® IS A REGISTERED TRADEMARK OF
FLORIDA RESTAURANT & LODGING ASSOCIATION. ALL RIGHTS RESERVED.

- Temperature Danger Zone is **41º** to **135º**

MINIMUM INTERNAL COOK TEMPERATURES		
Chicken/Poultry	**165º**	for **1 Second**
Ground Meats	**155º**	for **17 Seconds**
Pork & Beef	**145º**	for **15 Seconds**
Fish	**145º**	for **15 Seconds**

- The number one cause of foodborne illness is poor personal hygiene. **Always wash hands after using the restroom to reduce risk of the spread of Hepatitis A.**
- Always store ready-to-eat foods above raw foods.

FLORIDA RESTAURANT & LODGING ASSOCIATION

PRODUCTS & SERVICES

RCS Training

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Sexual Harassment Training

Professional Development Training

Beverage Alcohol Licensing

Labor Law Poster

Choking Posters

Food Safety Training

Employee Food Handler Training

Food Manager Certification

Direct Hand Contact Operating Plan

Allergen Awareness

HACCP

Online Food Safety Training

SAFESTAFF®

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TALLAHASSEE, FL 32301-7710

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