

TEXAS APPROVED FOOD HANDLER PROGRAM

State Lic. # 00077



PROPERTY OF:
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Online TX Food Handler @ <https://www.foodsafetydirect.com>

How Food Becomes Unsafe

1



Definitions:

- A foodborne illness (commonly known as food poisoning) is often caused by consuming food/drink contaminated by bacteria and /or their toxins, parasites, viruses, chemicals, or other agents- FDA
- “Foodborne disease outbreak” means the occurrence of two or more cases of a similar illness resulting from the ingestion of a common food.
- An investigation is conducted by state and local regulatory authorities
 - The outbreak is confirmed by laboratory analysis

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**"Time/temperature control for safety food" means a FOOD that
requires
time/temperature control for safety (TCS) to limit pathogenic
microorganism
growth or toxin formation.
This food must be maintained HOT 135° or higher COLD 41° or below**

TCS foods includes the following:

- Milk and dairy products
- Shell eggs (except those treated to eliminate *Salmonella* spp.)
- Meat: beef, pork, and lamb
- Poultry
- Fish
- Shellfish and crustaceans
- Baked potatoes
- Heat-treated plant food, such as cooked rice, beans, and vegetables
- Tofu or other soy protein; synthetic ingredients, such as textured soy protein in meat alternatives
- Sprouts and sprout seeds
- Sliced melons; cut tomatoes; cut leafy greens
- Untreated garlic-and-oil mixtures

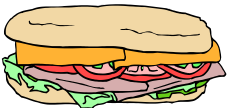
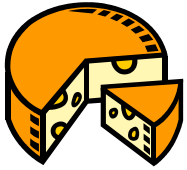
Ready To Eat Food

"Ready-to-eat food" means FOOD that: (a) Is in a form that is edible without additional preparation to achieve FOOD safety.

Is a raw or partially cooked animal FOOD and the consumer is advised about the risk associated with consuming partially cooked or raw animal food. Or is prepared in accordance with a variance that is granted. May receive additional preparation for palatability or aesthetic, epicurean, gastronomic, or culinary purposes.

Table A considers the "Interaction of pH and water activity for control of spores in food heat treated to destroy vegetative cells and subsequently packaged."

Table B considers the "Interaction of pH and aw for control of vegetative cells and spores in food not heat-treated or heat-treated but not packaged."



Clean Hands



Clean utensils

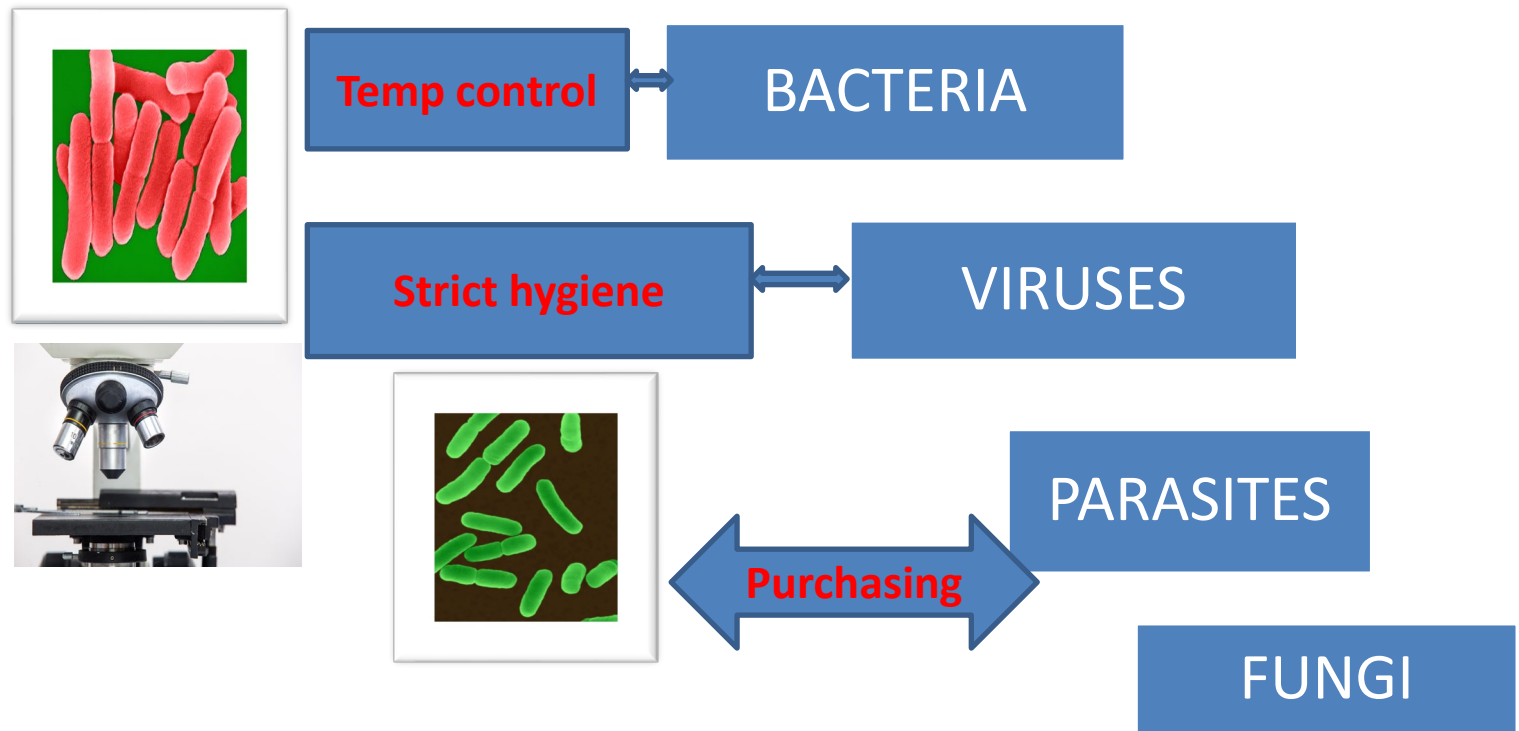


Clean gloves



Biological Hazards

Microorganisms that can make people sick known as pathogens



Cannot be seen tasted or smelled, can be in the food and make people sick

Chemical Hazards



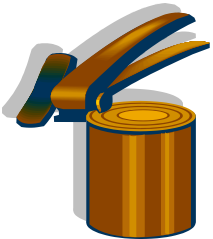
- Cleaners
- Sanitizers
- Lubricants
- Pesticides
- Toxic Metals

To prevent food contamination from Toxic Materials:

- **Store** them in an area **away, separated or below** food and food preparation areas
- Follow manufacturers instructions
- **Label** chemicals taken out of the original containers
- Use only **approved commercial** equipment and utensils, preferably with the **NSF** seal

Physical Hazards

Objects can get into the food including naturally occurring ones:
Keeping food covered, following strict personal hygiene and purchasing
From approved suppliers will prevent physical contamination



- Bandages
- Glass
- Bones & fruit pits
- Metal shavings
- Fibers from dishwashing scrubbers
- Dirt
- Staples
- Jewelry
- Wood
- Hair
- Fingernails



Foodborne Illness Risk Factors

These are the 5 most common risk factors for Foodborne Illness



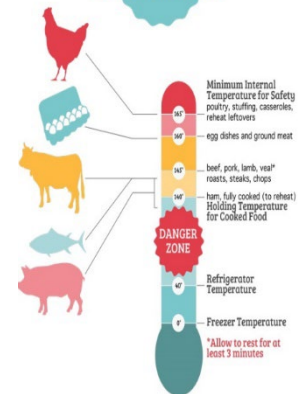
- Purchasing from unsafe sources- **Not checking supplier's licenses**
- Inadequate cooking of food- **Not checking temperatures with a calibrated thermometer to verify the food is cooked to the minimum temperature**
- Holding food at incorrect temperatures- **Not checking food temperatures at least every 4 hrs. to avoid time and temperature abuse.**
- Using contaminated equipment- **Not washing rinsing & sanitizing equipment and utensils between uses**
- Poor personal hygiene- **Inadequate handwashing, Incorrect use of gloves & wearing dirty uniform/Apron**

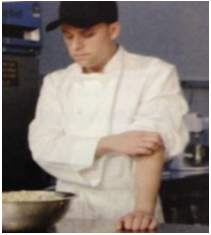


REDUCING OR ELIMINATING THE RISK FACTORS:

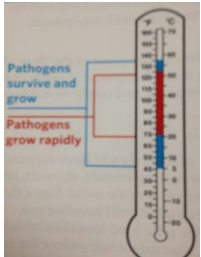
- Purchasing from approved and reputable suppliers
- Cooking at the minimum required temperature
- Holding TCS foods at the correct temperature
- Adequate cleaning and sanitizing of all food contact surfaces
- Following strict personal hygiene

Food Danger Zone Guidelines





Behaviors associated with Foodborne Illness and Foodborne Outbreaks



- ***Poor personal hygiene:*** Transferring pathogens from your body to food.
- ***Time and Temperature Abuse:*** Letting food stay too long at temperatures that favor pathogen growth(Bacteria).
- ***Cross-contamination:*** Transferring pathogens from one surface or food to another.



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Good Personal Hygiene

Food Handlers must follow strict personal hygiene in order to prevent food contamination

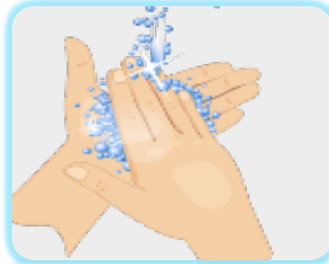
- Clean hat or other hair restraint
- Clean clothing including the apron
- Remove apron when leaving the preparation area(especially when going to the restroom or to take the trash)
- Remove all jewelry from arms and hands including medical bracelets (only a smooth metal band may be worn)
- Clean hands and short fingernails without nail polish
- Cover all cuts or injuries with a clean bandage or band aid and an appropriate glove

To prevent food contamination, hands and arms should always be kept clean.

Hand washing should take at least 20 seconds



1. Wet hands and arms. Use running water as hot as you can comfortably stand. It should be at least 100° F (38° C).



2. Apply soap. Apply enough to build up a good lather.



3. Scrub hands and arms vigorously. Scrub them for 10 to 15 seconds. Clean under fingernails and between fingers.



4. Rinse hands and arms thoroughly. Use running warm water.



5. Dry hands and arms. Use a single-use paper towel . Use the paper towel to turn off the faucet and open the restroom door.

When to Wash Hands



•Food handlers must wash their hands before they start work, when changing tasks, and after:

- Using the restroom
- Handling raw meat, poultry, and seafood (*before and after*)
- Touching or scratching the hair, face, or body
- Sneezing, coughing, or using a tissue
- Eating, drinking, smoking, or chewing gum or tobacco
- Handling chemicals that might affect food safety

When to Wash Hands

Food handlers must wash their hands when changing tasks and after:



- Taking out garbage
- Clearing tables or busing dirty dishes
- Touching clothing or aprons
- Handling money
- Leaving and returning to the kitchen/prep area
- Handling service animals or aquatic animals
- Touching anything else that may contaminate hands
- Touching the phone
- Shaking someone's hands
- Touching clothing or aprons

How to use Hand Antiseptics

When using Hand Antiseptic:

*It must be **approved by the FDA***

- **Never** use it instead of hand washing
- Should be used **only after** handwashing
- Should be allowed to dry before touching food or equipment
- Follow manufacturer's instructions



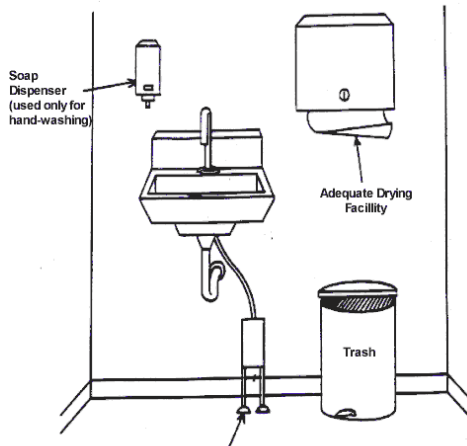
Where to wash your hands



Food handlers should wash their hands only in a designated sink for handwashing



- ❖ Do not place anything blocking the sink to wash your hands.
- ❖ Do not pour any dirty drinks or water into the sink to wash your hands.
- ❖ Do not prepare food in the sink to wash your hands
- ❖ Do not place dirty dishes or cleaning tools in or in front of the sink to wash your hands.
- ❖ Do not rinse towels in the sink to wash your hands.
- ❖ Make sure the handwashing station is equipped with hot water, soap, paper towels, and a handwashing reminder sign and a trash receptacle to throw in the towel



Handwash Sink Example

Using Gloves Correctly

Gloves will **NOT** prevent food contamination if not used correctly



These guidelines must be followed when using gloves:

- Wash hands before putting gloves on when starting a new task
- Select the correct glove size
- Hold gloves by the edge when putting them on
- Once gloves are on, check for rips or tears
- **NEVER** blow into gloves
- **NEVER** roll gloves to make them easier to put on
- Change the gloves after touching raw meats, seafood, and poultry and before touching ready to eat food and as often as necessary.
- **NEVER** wash hands with the gloves on
- Wear only one pair of gloves at a time

DON'T



THEN



Hand and Fingernail Care



- ❑ -Keep fingernails short and clean

- ❑ -Do NOT wear false nails

- ❑ - Do NOT wear nail polish, rhinestones, or designs

- ❑ - Do NOT wear exposed Band-Aids

- ❑ - Cover all cuts or injuries with a clean waterproof bandage or band aid as required



Outer Clothing and Jewelry

Dirty clothes may contain pathogens that can make people sick

You can prevent this by following these guidelines:



Food handlers must:

- ☐ Wear a clean hat or other hair restraint to keep hair from falling in the food, and to keep from touching the hair when:
 - a. Serving
 - b. Preparing
 - c. Working around food preparation
 - d. Washing dishes
- ☐ Wear clean clothing daily, including the apron and uniform
- ☐ Remove aprons when leaving food-preparation areas, especially when going to the restroom or taking out the trash
- ☐ Remove jewelry from hands and arms before prepping food or when working around prep areas(no watches, medical ID bracelet or any other bracelets allowed). Only a smooth metal band may be used

{The Facility may require the removal of other jewelry}



Eating, Drinking, Smoking, and Chewing Gum or Tobacco

Food handlers must **NOT**:

Eat, drink, smoke, or chew gum or tobacco

When:

- ☐ Prepping or serving food
- ☐ Working in prep areas
- ☐ Working in areas used to clean utensils and equipment
(washing dishes)

The facility may allow drinking, provided that it is done from a covered container with a straw subsequently stored on a non-food contact surface and separate from exposed food, clean equipment and unwrapped single service and single use articles.



Animal Handling Prohibition



Food Employees:

- May not care for or handle animals that may be present such as patrol dogs, service animals, or pets that are allowed in areas that are not used for food preparation and that are usually open for customers, such as dining and sales areas, service animals that are controlled by the disabled employee or person, if a health or safety hazard will not result from the presence or activities of the service animal.
- Food employees with assistance animals may handle or care for their assistance animals provided that they wash their hands correctly after doing so.
- food employees may handle or care for fish in aquariums or molluscan shellfish or crustacea in display tanks if they wash their hands correctly immediately after and before handling food or food contact surfaces.



Hair Restrain Effectiveness



Food Employees shall wear hair restraints such as hats, hair coverings or nets, beard restraints, and clothing that covers body hair, that are designed and worn to effectively keep their hair from contacting exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles.



GUIDE TO FOOD EMPLOYEE EXCLUSIONS AND RESTRICTIONS

Condition	Health Status of Food Employee	Food Establishment	Exclude or Restrict?	Return-to-Work Criteria for Food Employee
Norovirus	Symptomatic	any food establishment	Exclude	Food employee can be reinstated with approval from the Regulatory Authority and if one of the following conditions is met: • Medical documentation stating that the food employee is free of infection from Norovirus; • More than 48 hours have passed since the food employee became asymptomatic (without the use of diarrhea suppressing medications) or • The food employee did not develop symptoms and more than 48 hours have passed since being diagnosed.
	Asymptomatic	serves a highly susceptible population	Exclude	
		does NOT serve a highly susceptible population	Restrict	
Salmonellosis (non-typhoidal <i>Salmonella</i> sp.)	Symptomatic	any food establishment	Exclude	Food employee can be reinstated with approval from the Regulatory Authority and if one of the following conditions is met: • Medical documentation stating that the food employee is free of infection from non-typhoidal <i>Salmonella</i> based on test results showing two consecutive, negative stool specimen cultures. The stool specimens should be collected at least 24 hours apart and not sooner than 48 hours after the last dose of antibiotics, if antibiotics were given; • More than 30 days have passed since the food employee became asymptomatic (without the use of diarrhea suppressing medications) or • The food employee did not develop symptoms and more than 30 days have passed since being diagnosed.
	Asymptomatic	any food establishment	Restrict	

GUIDE TO FOOD EMPLOYEE EXCLUSIONS AND RESTRICTIONS

Condition	Health Status of Food Employee	Food Establishment	Exclude or Restrict?	Return-to-Work Criteria for Food Employee
Shigellosis (<i>Shigella</i> sp.)	Symptomatic	any food establishment	Exclude	Food employee can be reinstated with approval from the Regulatory Authority and if one of the following conditions is met: - Medical documentation stating that the food employee is free of infection from <i>Shigella</i> sp. based on test results showing two consecutive, negative stool specimen cultures. The stool specimens should be collected at least 24 hours apart and not sooner than 48 hours after the last dose of antibiotics, if antibiotics were given; - More than 7 days have passed since the food employee became asymptomatic (without the use of diarrhea suppressing medications) or - The food employee did not develop symptoms and more than 7 days have passed since being diagnosed.
	Asymptomatic	serves a highly susceptible population	Exclude	
		does NOT serve a highly susceptible population	Restrict	
STEC (Shiga toxin-producing <i>E. coli</i>)	Symptomatic	any food establishment	Exclude	Food employee can be reinstated with approval from the Regulatory Authority and if one of the following conditions is met: - Medical documentation stating that the food employee is free of infection from Shiga toxin-producing <i>E. coli</i> based on test results showing two consecutive, negative stool specimen cultures. The stool specimens should be collected at least 24 hours apart and not sooner than 48 hours after the last dose of antibiotics, if antibiotics were given; - More than 7 days have passed since the food employee became asymptomatic (without the use of diarrhea suppressing medications) or - The food employee did not develop symptoms and more than 7 days have passed since being diagnosed.
	Asymptomatic	serves a highly susceptible population	Exclude	
		does NOT serve a highly susceptible population	Restrict	

GUIDE TO FOOD EMPLOYEE EXCLUSIONS AND RESTRICTIONS

Condition	Health Status of Food Employee	Food Establishment	Exclude or Restrict?	Return-to-Work Criteria for Food Employee
Typhoid Fever (<i>Salmonella Typhi</i>)	Symptomatic or Asymptomatic	any food establishment	Exclude	Food employee can be reinstated with approval from the Regulatory Authority and if one of the following conditions is met: Medical documentation by a health practioner stating that the food employee is free of S. Typhi infection.
Hepatitis A or jaundiced (the onset of jaundice occurred within the last 7 calendar days)	Symptomatic or Asymptomatic	any food establishment	Exclude	Food employee can be reinstated with approval from the Regulatory Authority and if one of the following conditions is met: - The food employee has been jaundiced for more than 7 calendar days; - The anicteric food employee has been symptomatic with symptoms other than jaundice for more than 14 calendar days or - Medical documentation by a health practioner stating that the food employee is free of hepatitis A infection.

GUIDE TO FOOD EMPLOYEE EXCLUSIONS AND RESTRICTIONS

It is the Food Handler's responsibility to immediately report the following symptoms to their Manager



Condition	Health Status of Food Employee	Food Establishment	Exclude or Restrict?	Return-to-Work Criteria for Food Employee
Below are Criteria for Reportable Symptoms with No Diagnosis				
	vomiting or diarrhea	any food establishment	Exclude	Food employee can be reinstated if one of the following conditions is met: - Is asymptomatic for at least 24 hours (without the use of diarrhea suppressing medications) or - Medical documentation that states symptom is from a noninfectious condition
	sore throat with fever (acute onset)	serves a highly susceptible population	Exclude	Food employee can be reinstated with medical documentation stating one of the following conditions has been met: - Antibiotic therapy for <i>Streptococcus pyogenes</i> infection for more than 24 hours; - at least one negative throat specimen culture for <i>S. pyogenes</i> infection or - determined free of a <i>S. pyogenes</i> infection by a health practitioner.
		does NOT serve a highly susceptible population	Restrict	
	uncovered infected wound or pustular boil	any food establishment	Restrict	Food employee can be reinstated if the wound or boil is properly covered with one of the following: - An impermeable cover such as a finger cot or stall and a single-use glove over the impermeable cover if the wound or boil is on the hand, finger, or wrist; - And impermeable cover on the arm if the wound or boil is on the arm or - A dry, durable, tight-fitting bandage if the wound or boil is on another part of the body

Definitions of Interest from the Texas Food Establishment Rules (TFER):

Food employee--An individual working with unpackaged food, food equipment or utensils, or food-contact surfaces

Asymptomatic--Not showing obvious symptoms, not producing indications of a disease or other medical condition. An individual infected with a pathogen but not exhibiting or producing any signs or symptoms of vomiting, diarrhea, or jaundice. Symptoms are not shown because the symptoms have been resolved or have subsided, or because the symptoms never manifested.

Restrict--To limit the activities of a food employee so that there is no risk of transmitting a disease that is transmissible through food and the food employee does not work with exposed food, clean equipment, utensils, linens; and unwrapped single-service or single-use articles.

Exclude--To prevent a person from working as a food employee or entering a food establishment except for those areas open to the general public.

Highly susceptible population--Persons who are more likely than other people in the general population to experience foodborne disease because they are immunocompromised, preschool aged children, or older adults and are obtaining food at a facility that provides services such as custodial care, health care, or assisted living.

Regulatory authority--The local, state, or federal enforcement body or authorized representative having jurisdiction over the food establishment

Preventing Contamination from Hands.

Bare-Hand Contact with Ready-to-Eat Food

FOOD EMPLOYEES may not contact exposed, READY-TO-EAT FOOD with their bare hands and shall use suitable UTENSILS such as deli tissue, spatulas, tongs, single-use gloves, or dispensing EQUIPMENT.

FOOD EMPLOYEES shall minimize bare hand and arm contact with exposed FOOD that is not in a READY-TO-EAT form.

Food Employees should not Handle ready-to-eat food with bare hands when you primarily serve a high-risk population



Bare hand contact with ready to eat food Policies

FOOD EMPLOYEES WHO DO NOT SERVE A HIGHLY SUSCEPTIBLE POPULATION may handle READY-TO-EAT FOODS directly with their bare hands if:

The permit holder obtains PRIOR APPROVAL from the REGULATORY AUTHORITY

(2) Written procedures are maintained at the FOOD ESTABLISHMENT and made available to the REGULATORY AUTHORITY upon request, including:

(a) For each bare-hand contact procedure, a list of the specific READY-TO-EAT FOODS that are touched with bare hands, (b) Diagrams and other information showing that the handwashing facilities, installed, located, equipped, and maintained and are in an easily accessible location and in close proximity to the workstation where the bare hand contact procedure is performed; (3) A written health policy from the EMPLOYEE detailing how the FOOD ESTABLISHMENT complies with the Documentation that FOOD EMPLOYEES and CONDITIONAL EMPLOYEES acknowledge they are informed to report information about their health and activities as they relate to gastrointestinal symptoms and illnesses that are transmissible through FOOD, Documentation that FOOD EMPLOYEES and CONDITIONAL EMPLOYEES acknowledge their responsibilities, and Documentation that the RESPONSIBLE acknowledges responsibilities, Documentation that FOOD EMPLOYEES acknowledge having received training in: The RISKS of coming into contact with the specific READY FOOD

CONTINUED 

Bare-handed contact with ready-to-eat foods Policies -Cont

Policies to reduce or eliminate risks should include:

1. Proper Hand Washing, When to Wash Your Hands, Where to Wash Your Hands, Proper Nail Maintenance, Jewelry Ban, and Good Hygiene Practices
2. Documentation that hands are washed prior to preparation of FOOD and as needed to prevent cross-contamination by FOOD EMPLOYEES during all hours of operation when preparing specific READY-TO-EAT FOODS.
3. Documentation that FOOD EMPLOYEES who are touching READY-TO-EAT FOOD with bare hands use two or more of the following control measures to provide additional safeguards to the HAZARDS associated with uncovered hand contact:
 - (a) Double hand washing, (b) Nail brushes, (c) A hand antiseptic after hand washing (d) Incentive programs such as paid sick leave that help or encourage FOOD EMPLOYEES not to work when sick, or (e) Other control measures APPROVED by the REGULATORY AUTHORITY.
4. Documentation that corrective action is taken when these policies are not followed.

Risks associated with bare hand contact with ready to eat food

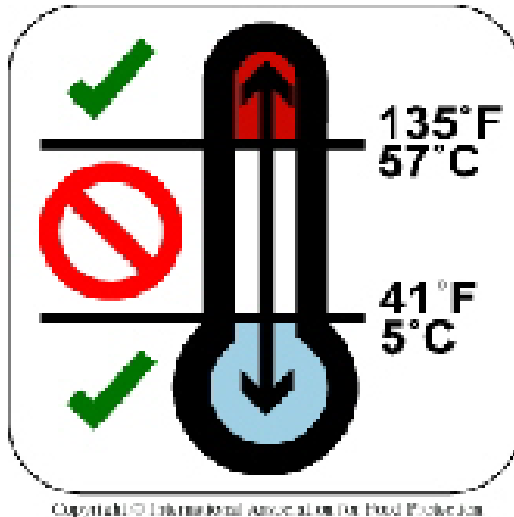
These are only a few examples of the risks

- 1. Failing to identify when there is a need for appropriate handwashing**
- 2. Washing hands incorrectly**
- 3. Not utilizing the clean utensils and other barriers available to minimize bare hand contact**
- 4. Not changing gloves between each task or more often if necessary**
- 5. Using the hand antiseptic in place of handwashing**
- 6. Touching raw meats and then touching ready to eat food with or without gloves**

Controlling time and temperature is very important in order to prevent pathogen growth and to keep food safe

Temperature Danger Zone

*Temperature Danger Zone is when food is in **between 41° and 135°***



To prevent time and temperature abuse, all TCS foods must be maintained:

- ☐ Cold at 41° or lower from receiving to serving
- ☐ Hot at 135° or higher in every step in the flow of food
- ☐ Frozen fully frozen
- ☐ Must be cooked correctly
- ☐ Must be cooled correctly
- ☐ Must be thawed correctly
- ☐ Must be reheated correctly

EXAMPLES OF TCS FOODS

TCS Foods are those foods that require Temperature Control for Safety and must be held hot at 135° or higher or cold at 41° or lower



MEAT



FISH



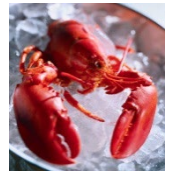
POULTRY



GROUND MEAT



SAUSAGE



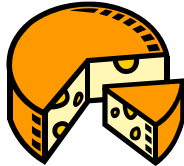
SEAFOOD



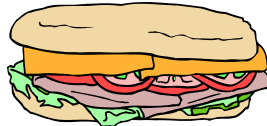
EGGS



MILK



CHEESE



COLD CUTS



HOT DOG



Tacos



Chorizo



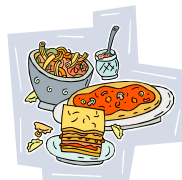
COOKED Veg.



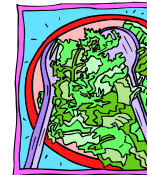
STIR FRY



GARLIC & OIL



Pastas



SALADS



Cut tomatoes



Cut Melons

Food Thermometers

Correct use of thermometers is critical to ensure food is being received, cooked, held, cooled, and reheated appropriately



- **Must be used to check the temperature of food**
- **Must be calibrated before each shift by:**
 - a. **Filling a glass of ice and water to create a slush**
 - b. **Insert thermometer in slush for 30 sec.**
 - c. **Adjust with nut if not 32°**
- **Must be washed, rinsed, and sanitized**
- **Must be inserted into the thickest part of the food and remain there for 15 seconds for temperature reading to stabilize.**

Food Receiving

- Food must be received from a safe/approved source
- Must be inspected at receiving in order to identify signs of contamination, which may include pests.
- Must be rejected if not at the right temperature, Hot at 135° or Cold at 41°, and
- frozen fully Frozen without ice crystals(sign of thawing and re-freezing)
- Check quality of food

Food Storage

All TCS Food must be stored at the correct temperature:

- Cold Food must be stored and held at 41° or below
- Hot Food must be stored and held at 135°
- Any TCS Food prepared in the establishment and **held for 24 or longer, should be labeled with the name of the food and the use by date, not to exceed 7 days if held at 41° or lower**
- All Food received should be rotated according to the date on the product, whatever is due to expire first, should be stored in front, also known as **FIFO**
- Check all food in storage for expired dates, and remove it from inventory

Defrosting Food

TIME/TEMPERATURE CONTROL FOR SAFETY FOOD shall be thawed:

(A) Under refrigeration that maintains the FOOD temperature at 5oC (41oF) or less.

(B) Completely submerged under running water: (1) At a water temperature of 21oC (70oF) or below, (2) With sufficient water velocity to agitate and float off loose particles in an overflow, and (3) For a period of time that does not allow thawed portions of READY-TO-EAT FOOD to rise above 5oC (41oF), or (4) For a period of time that does not allow thawed portions of a raw animal FOOD requiring cooking to be above 5oC (41oF), for more than 4 hours including: (a) The time the FOOD is exposed to the running water and the time needed for preparation for cooking, or (b) The time it takes under refrigeration to lower the FOOD temperature to 5oC (41oF);

(C) As part of a cooking process if the FOOD that is frozen is: (1) Cooked Thawed in a microwave oven and immediately transferred to conventional cooking EQUIPMENT, with no interruption in the process; or

(D) Using any procedure if a portion of frozen READY-TO-EAT FOOD is thawed and prepared for immediate service in response to an individual CONSUMER'S order.

Food Preparation

To prevent Cross-Contamination and Time and Temperature abuse during preparation:



- Before any food preparation begins, all work surfaces, tableware, equipment and utensils must be washed rinsed and sanitized before coming in contact with food.
- All Food Handlers should follow strict personal hygiene.
- Wash all fruits and vegetables before cutting or combining with other ingredients
- When preparing food, only take out the temperature small amounts of food and return it to the temperature as quickly as possible
- All raw meat fish and poultry must be kept separate by type of meat.
- All prep tables for preparing raw meat, fish, and poultry must be kept separate from the ready to eat food prep tables.
- If not enough prep tables, foods may be prepared at a separate time once the prep tables are washed, rinsed and sanitized.

Controlling Time and Temperature during cooking

Cooking food to the correct temperature is critical for controlling or reducing pathogens to safe levels and prevent Foodborne Illness

In order to maintain Time and Temperature Control, follow the minimum cooking requirements:



Poultry whole or ground 165° for <1 seconds



Ground meat—beef, pork, veal, lamb, seafood including chopped or minced 155° for 17 seconds



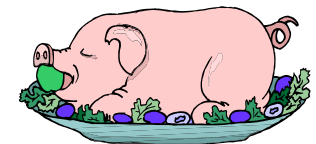
Whole cuts of beef, pork, fish, veal, lamb, steak, or chops 145° for 15 seconds



Plant FOODS that are cooked for hot holding shall be cooked to a temperature of 57°C (135°F).



Whole MEAT roasts including beef, corned beef, lamb, pork, and cured pork roasts such as ham shall be cooked: 62.8°C (145°) 4 minutes



Time and Temperature Control

Time and Temperature control is critical to the prevention of bacteria growth

Cooking in the Microwave



1. Before using the microwave, make sure that it's clean.
2. Cover the food before placing in the microwave to cook
3. Stir or rotate halfway thru the cooking process
4. Let the food stand covered for 2 minutes after cooking it.
5. Measure the temperature of the food to make sure it reaches 165°

Hot TCS Foods must be held at or above **135°** during:

Hot

- Receiving
- Storage
- Preparation
- Holding
- Displaying
- Serving

Cold TCS Foods must be held at or below **41°** during:

Cold

- Receiving
- Storage
- Preparation
- Holding
- Displaying
- Serving

Cooling food correctly

Once hot food reaches 135° the cooling process must begin

Total time is
6hrs from
135 to 41

Cool from 135° to
70° within 2hrs.(use
ice water bath)

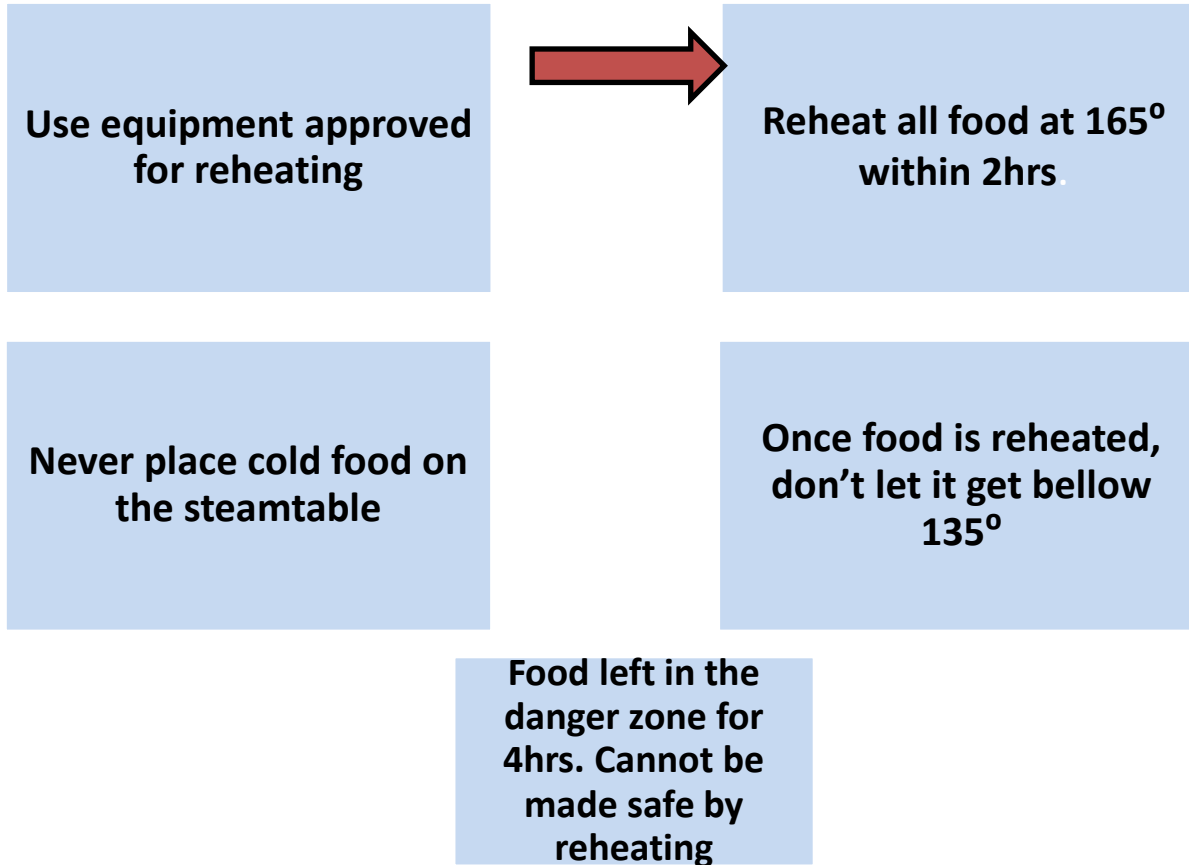
Cut large items into
smaller pieces or
divide large amounts
into smaller amounts

Then cool from 70° to
41° in 4 more hrs.
In the refrigerator

Never leave food to
cool at room
temperature

NEVER PLACE HOT
FOOD IN THE
REFRIGERATOR

REHEATING FOOD



Cross-Contamination:

When pathogens are transferred from one surface or food to another

Cross-contamination can cause a foodborne illness when:

- **Contaminated ingredients are added to food that receives no further cooking**
- **Ready-to-eat food touches contaminated surfaces**
- **A food handler touches contaminated food and or surfaces, then touches ready-to-eat food**
- **Contaminated cleaning cloths touch food-contact surfaces.**
- **Using the same serving utensil for more than one food item**
- **Food contact surfaces are just rinsed or wiped instead of washed, rinsed and sanitized.**

To prevent Cross-Contamination

- **Store food in clean covered containers**
- **Store food in approved food storage containers(not in chemical containers)**
- **Store ready to eat food above raw seafood, meat, and poultry**
- **Store food only in designated food storage areas.**
- **Store food, equipment, utensils, single service items, clean linens, and gloves at least 6” off the floor and away from the wall.**
- **Store silverware with the handles up**
- **Store glasses and cups upside down on a clean surface**
- **Store toxic materials away from food preparation and storage areas**



Preventing Cross-Contamination During Service

Service:

Servers must follow these strict guidelines during serving:



- Wash hands before starting work
- Do not hold glasses by the rim
- Do not place thumbs on the plate, hold it by the edge instead
- Touch the silverware by the handle
- Avoid touching food with bare hands, use a clean utensil instead
- Use a scoop to serve ice, **DO NOT** use a glass or touch ice with hands
- Store ice scoop outside the ice in a clean protected location
- Use clean utensils to serve food
- Do not use ice as an ingredient if it was used to cool beverages

Self Service:



*There must be sneeze guards on the self service

- All food must be labeled, including salad dressing ladles
- Use one utensil for each food item
- Clean and sanitize utensils after each task
- Clean and sanitize utensils at least every four hours
- All raw meats must be kept separate from the ready to eat foods

Food Allergens

A food allergen is a food protein that causes an adverse immune response and can possibly cause death.

The 8 specific foods that are known as major food allergens include:



DAIRY



SOY



Sesame seeds



EGGS



PENUTS AND TREE NUTS



WHEAT



**FISH AND SHELFISH
LIKE LOBSTER SHRIMP AND CRAB**



Or any food ingredients that contain protein derived from these foods.

Food Service Employee Allergen Awareness

Texas Department of State Health Services | Consumer Protection Division | Food & Drug Section | Retail Food Safety Operations

Food allergens present a **SERIOUS** health risk to you and your customers and may even cause **DEATH**. Yet some simple actions can assure that you and your customers are fully informed, and that everyone has a safe experience. An allergic reaction is an immune system response. In some people, a food allergy can cause severe symptoms or even a life-threatening reaction known as *anaphylaxis*.

9 Major Food Allergens



Symptoms of an Allergic Reaction

- Hives
- Flushed skin or rash
- Tingling or itchy sensation in mouth
- Face, tongue, and/or lip swelling
- Vomiting and/or diarrhea
- Abdominal cramps
- Coughing or wheezing
- Dizziness and/or lightheadedness
- Swelling of throat and/or vocal cords
- Difficulty breathing
- Loss of consciousness

Response to Allergic Reaction

Call 911 and seek emergency medical attention!

- Tell the person experiencing any of these symptoms to stop eating the food immediately.
- If the person has emergency medication, like *epinephrine*, and needs to use it, **trained food service employees** may assist the person to administer the medication.



Procedures for Preventing an Allergic Reaction

- 1. Food Service Employee Awareness:**
 - Be familiar with the current menu.
 - Be able to identify all major food allergens used in the food establishment.
 - Contact your supervisor for necessary allergen information.
- 2. Prevent Cross-Contact of Allergens:**
 - Use different cutting surfaces before and after handling food with allergens.
 - Clean and sanitize equipment and food contact surfaces before and after handling food with allergens.
 - Wash hands and change gloves before and after handling potential food allergens.

Food Allergy Risk Factors

- Cross-contact of allergens with food not containing allergens
- Age
- Lack of menu information
- Asthma
- Family history
- Lack of knowledge
- Other allergies



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Health Services

To prevent Cross-Contamination

Cleaning and sanitizing correctly is a must for all Food Handlers

The difference between cleaning and sanitizing



1. Cleaning is the process of using an approved detergent or cleaner to remove visible food debris and grease from surfaces. If the surface will not come into contact with food, then you can clean it this way
2. Sanitizing is using an approved sanitizer to reduce pathogens from surfaces to safe levels after cleaning them. This procedure must be followed for all surfaces coming into contact with food
3. Whether using a 3-compartment sink, a dishwasher, or the 3 buckets, the steps are the same. wash, rinse and sanitize all food contact surfaces:
 - a. Before they come into contact with food.
 - b. In between tasks (after preparing raw meat and before preparing ready to eat food).
 - c. After a task is interrupted
 - d. At least every four hours if used continuously

Clean in Place



Soap and
water



Clean
water to
rinse



Sanitizer
and water

All Stationary equipment that cannot be taken to the sink or dishwasher must be cleaned in place before it comes in contact with food, after contact with raw meats and before touching ready to eat food, and at least every four hours when it is used continuously:

- **Unplug electrical equipment before you start cleaning it**
- **Take the removable parts to the 3 compartment sink or dishwasher**
- **Bring buckets with soapy water and clean water for rinsing**
- **Bring a bucket or a spray bottle with sanitizer**
- **Soak or scrub if needed**
- **Wash with soapy water**
- **Rinse with clean water**
- **Sanitize and allow it to air dry**
- **Place parts back together after air drying**

Approved sanitizers:

1. Chlorine(bleach)
2. Iodine
3. Quaternary Ammonium Compound

How to make sure sanitizers are effective:

- Make sure the water is at the right temperature
- Make sure you mixed the correct amount of sanitizer by using a test kit to measure the concentration
- Use the appropriate test kit for the sanitizer being used
- Make sure you leave items in the sanitizer for the right amount of time
- Follow manufacturers recommendations



Cleaning & Sanitizing in a 3 compartment sink

Three-Compartment Sink



HOW TO SANITIZE

Chlorine Solution

- minimum temperature 75°F - 100°F
- 7-10 seconds in 25 - 100 ppm

Quaternary Ammonium Solution

- minimum temperature 75°F
- 30 seconds in 200 - 400 ppm

Iodine Solution

- minimum temperature 75°F
- 30 seconds in 12.5 - 25 ppm

*All chemical solutions should be tested for effectiveness using a test kit strip.
Use according to manufacturers directions and the Texas Food Establishment Rules*



Food Establishments Group
www.dshs.state.tx.us/foodestablishments

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1. Make sure sink and drain boards are clean & sanitized
2. Fill the first sink with hot water 110° and detergent
3. Fill the second sink with clean water for rinsing
4. Fill the third sink with water and the correct concentration of an approved sanitizer

Steps for cleaning and sanitizing in a 3-compartment sink

- 1. Rinse, scrape or soak items before washing them.**
- 2. Clean the items in the first sink by using a brush or nylon scrubbing pad to loosen stuck on food and grease**
- 3. Make sure to change the water when is dirty or the suds are gone**
- 4. Rinse the items in the second sink by dipping them in the water.**
- 5. Change the water hen it becomes dirty or full of suds.**
- 6. Sanitize the items in the third sink by soaking them in a correctly mixed sanitizing solution.**
- 7. Never rinse the items after sanitizing them. This could contaminate the surfaces.**
- 8. Air dry all the items by placing them upside down.**
- 9. Do **NOT** use towels to wipe them dry**

DISHWASHER

Using the dishwasher:



1. Make sure the dishwasher is clean including the water tank
2. Fill the soap and sanitizer dispensers
3. Soak the dishes if necessary
4. Use the appropriate racks
5. Load up the racks(don't overload the racks)
6. Check dishes to make sure they came out clean and re-wash if needed
7. Allow the dishes to air dry

Maintaining the dishwasher:

1. De lime the dishwasher often
2. Use only approved detergents for dishwasher used
3. Check the machine's temperature regularly
4. Report to supervisor if dishwasher is not working correctly

Storing chemicals and cleaning supplies

Chemicals and cleaning supplies must be stored the right way to prevent food contamination



- *store chemicals away from where the food is being prepared, stored, or served.*
- Make sure to label all chemicals taken out of the original container with the name of the chemical.
- Store all your cleaning tools in a well-lit area with hooks to hang the brooms & mops to dry, away from where food is being prepared, served or stored.
- Use the utility sink service sink for cleaning tools and to empty dirty water
- **NEVER** dump dirty water into toilets or urinals



PEST CONTROL

Pest can carry pathogens and can make people sick

Deny food and shelter and working with a licensed pest control operator will help prevent a pest infestation

Report signs of pest to your supervisor:

1. Roaches: Shiny black capsule shaped eggs and a strong oily smell
2. Rats/mice: **Black droppings**, nests, holes on walls



Ways to prevent a pest infestation:

1. Inspect deliveries for signs of insects
2. **Seal all gaps** inside or out of building
3. **Clean** up spills quickly
4. Keep all food **covered**
5. Keep trash cans covered when not in use
6. Take out trash as soon as it gets full
7. **Clean** floors including under all equipment

