

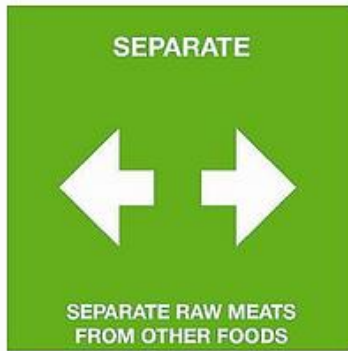
FOOD HANDLER'S MANUAL

A Guide to Safe & Healthy Food Handling for
Food Establishments



Bethlehem Health Bureau
10 East Church Street
Bethlehem, PA 18018
610-865-7083





Introduction

“While the food supply in the United States is one of the safest in the world, the Centers for Disease Control and Prevention (CDC) estimates that 76 million people get sick, more than 300,000 are hospitalized and 5,000 Americans die each year from foodborne illness. Preventing foodborne illness and death remains a major public health challenge. In addition, CDC estimates that foodborne illness cost the country \$6.9 billion every year”

- Centers for Disease Control and Prevention website (www.cdc.gov/foodsafety)

This manual is designed to provide food service operators, management, and personnel with safe food handling guidelines in order to reduce the risk of foodborne illnesses.

Training of all food employees must be an integral part of the food establishment's food safety plan, policies and daily operations.



Do your part for Public Health by practicing Food Safety every day!

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Importance of Food Safety

Food safety is used as a scientific discipline describing handling, preparation, and storage of food and food equipment in ways that prevent food-borne illness.

Causes of Foodborne Illness

Viruses

Common viruses that may cause foodborne illness include **Hepatitis A and Norovirus**. These viruses are most often passed from stool to mouth (fecal-oral route), which makes thorough handwashing and avoiding bare hand contact with ready-to-eat food extremely important.

Bacteria

Bacteria can grow in food if the food is not handled properly. Bacteria grow quickly, and under optimal conditions, *they double every 20 to 30 minutes*. The way bacteria grow in foods makes **temperature controls and food safety practices extremely important**.

Common bacteria that may cause foodborne illness include:

- Salmonella
- Escherichia coli (E. coli) O157:H7
- Shigella
- Staphylococcus aureus (staph)
- Bacillus cereus
- Clostridium perfringens
- Clostridium botulinum
- Campylobacter jejuni
- Listeria



Time or Temperature Control for Safety Foods (TCS)

“Time or Temperature Control for Safety Food or TCS” is any food or ingredient that is capable of supporting the rapid and progressive growth of infectious or toxic microorganisms, like viruses and bacteria.

To be a TCS food, a food must be:

- Non-acidic (neutral pH)
- Moist
- A food source for bacteria

Some TCS Foods Include:

- ✓ All meats, eggs and dairy products
- ✓ Cooked vegetables
- ✓ Tofu, tempeh, soy milk
- ✓ Cooked beans, pastas, grains
- ✓ Raw seed sprouts (alfalfa sprouts, bean sprouts, etc.)
- ✓ Garlic, onion, or herbs in oil
- ✓ Cut melon, cut tomato, cut leafy greens



Person-In-Charge (PIC) Requirements

As per the FDA Food Code, there must be a designated Person in Charge (PIC) at a food establishment **AT ALL TIMES** during operation and on every shift. The PIC could be an owner, manager or any designated employee on duty at the facility.

The PIC responsibilities include, but are not limited to:

- Have and demonstrate knowledge of food safety.
- Ensure that food supplies are from reputable and commercial sources.
- Monitoring of employee hygiene, health and handwashing.
- Daily oversight of safe food preparation, cooking and holding temperatures of TCS food.
- Routine monitoring of cleaning and sanitizing methods and equipment.
- Ensure that food employees are properly trained in food safety as it relates to their job.
- Advise consumers about food allergens, upon inquiry.
- Take immediate remedial action and notify the Bethlehem Health Bureau of any imminent health hazard, such as fire, flooding, loss of electricity or water, etc.

Note: See the FDA Food Code Section 2-1 – Supervision for a complete list of responsibilities.

Food Safety Manger Certification Requirements

PA Commonwealth law requires most facilities that offer or prepare food to employ at least one individual that has successfully completed an American National Standards Institute (ANSI) accredited Food Safety Manager Certification course. It is your responsibility to ensure you are taking a **MANAGER** course, NOT a Food Handler course. You must provide at least one employee with the Food Safety Manager Certification within 90 days of opening your facility.

Compliance with law:

- The certified employee is the designated Person-in-Charge (PIC) when in the facility.
- The Certification Certificate must be posted in the facility in public view.
- An employee may only serve as the certified manager for one (1) facility.

The following are the current ANSI-accredited Food Safety Manager Certification courses:

- ✓ 360Training, Inc.
- ✓ AboveTraining/StateFoodSafety
- ✓ National Registry of Food Safety Professionals
- ✓ Prometrics Inc.
- ✓ ServSafe by the National Restaurant Association



Special Considerations

Highly Susceptible Populations

Anyone can get sick from food when it is handled in an unsafe manner; however, certain people get sick more often or have more serious illness. Highly susceptible populations include:

- Young children
- Elderly adults
- People with compromised immune systems
(due to AIDS, cancer, diabetes, or other health conditions)



Certain foods are more likely to cause foodborne illness. People in highly susceptible populations should be aware of these foods:

Undercooked meats and eggs, raw oysters, sprouts, unpasteurized juice and raw milk.

See the FDA Food Code Section 3-801 for more information.

Food Allergens

*** IF A CUSTOMER HAS AN ALLERGIC REACTION CALL 911 ***

Each year, millions of people in the U.S. have allergic reactions to certain foods. Food establishments are responsible for knowing the ingredients in foods served. Answer all questions thoroughly and honestly when a customer asks about food allergens.

**The Nine (9) Most Common
Allergy-Causing Foods
Include:**



Wheat



Eggs



Fish



Tree Nuts



Shellfish



Soy



Peanuts



Milk



Sesame

AVOID CROSS-CONTACT OF ALLERGENS!



➤ *Sources of Cross-Contact:*

- Cooking oils, splatter, and steam from cooking foods.
- Allergen-containing foods touching or coming into contact with allergy-free foods (i.e. a nut-containing muffin touching a nut-free muffin).

➤ *Important:* Equipment used for processing allergy-free foods must be carefully cleaned and sanitized prior to use:

- All utensils (i.e., spoons, knives, spatulas, tongs), cutting boards, bowls, pots, food pans, sheet pans, preparation surfaces.
- Fryers and grills.
- Wash hands and change gloves after handling potential food allergens.

Tip: Designate separate equipment and utensils to prepare allergen-free foods!

Employee Health and Hygiene

All Food Establishments must have and utilize an Employee Health Policy. Contact us or visit www.bethlehem-pa.gov/Health-Bureau for a sample Employee Health & Hygiene Policy.

*** IT IS IMPORTANT TO TRAIN ALL EMPLOYEES ON THIS POLICY ***

Sick Employees

Sick employees are at high risk for contaminating food and utensils with bacteria or viruses. For this reason, sick employees must be restricted or **excluded*** from working in the food establishment while sick.

Employees must be **excluded*** from working in the food facility if demonstrating any of the following symptoms:

- Diarrhea
- Vomiting
- Fever
- Jaundice
- Infected cuts/lesions on hands, wrists
- Persistent coughing, sneezing, runny nose
- Other symptoms as required by the PA Department of Health



Food employees must be restricted from working with or around food if demonstrating:

- Sore throat with fever

***Exclude means to prevent a person from entering the food establishment as an employee.**

Employees **diagnosed** with the following illnesses must report these illnesses to their supervisor and must be **excluded*** from the food facility:

- *Salmonella* Typhi
- Non-typhoidal *Salmonella*
- *Shigella* spp.
- *Escherichia coli* (E. coli)
- Hepatitis A
- Norovirus

The person in charge must report these illnesses to the Health Bureau at 610-865-7083.

Other Food Worker Policies

All employees must maintain good hygienic practices, including:

- Eating food and smoking in designated areas only.
- Drink from clean, closed containers that don't contaminate hands (cup with lid and straw)
- Storing drinks below and separate from food, prep surfaces, utensils, etc.
- Wearing hair restraints and clean outer clothing.
- Keeping fingernails trimmed and clean.
- Removing all jewelry from hands and wrists, only a plain metal ring is permitted.
- Removing aprons before entering the restroom or leaving the food prep area.
- Not using cloth towels or aprons for wiping hands.

Handwashing

Proper handwashing is the #1 way to stop the spread of disease!

Handwashing sinks

Handwashing sinks must be used for handwashing ONLY and must have:

- A poster or sign reminding employees to wash their hands
- Hot AND cold running water
- Soap
- Paper towels

Do not block handwashing sinks or use these sinks for any other purpose (dumping, rinsing containers, filling sanitizer buckets or water pitchers, etc)



Handwashing sinks must be accessible at all times

Always thoroughly wash hands:

- ✓ When entering the kitchen;
- ✓ Before putting on clean, single use gloves;
- ✓ Before handling clean equipment and serving utensils;
- ✓ After handling dirty dishes, equipment, utensils or linens;
- ✓ After handling raw meat, poultry, fish, or eggs;
- ✓ After using the toilet and when returning to the kitchen;
- ✓ After touching other body parts, such as, face, hair, exposed portions of the arms, etc.
- ✓ After coughing, sneezing, blowing the nose, using tobacco, eating, or drinking;
- ✓ Anytime hands may be contaminated!



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PROPER HANDWASHING STEPS:



1. Wet hands with warm water



2. Get soap



3. Scrub well for 10-15 seconds.



4. Rinse hands



5. Paper towel dry



6. Turn off water with towel

Glove Use

Why Is It Important To Use Gloves?

- ✓ To prevent germs from spreading to food that has been touched
- ✓ To protect our consumers from eating contaminated food and becoming sick

Bare Hand Contact and Ready-to-Eat Foods (RTE)

When hands are heavily contaminated, effective handwashing procedures may not be enough to prevent the transmission of germs from hands to RTE foods. Bare hand contact with a RTE food can result in contamination of food. Avoid bare hand contact by using single-use food service gloves, utensils, deli tissue, etc.

Ready-to-eat foods (RTE) are foods that do not require further cooking or heating before being served. **Do not touch RTE foods with bare hands!**



Some ready-to-eat (RTE) foods include:

- Food and drink garnishes
- Salads
- Fresh fruit and vegetables
- Pizza
- Sandwiches
- Cheese
- Beverages, ice
- Cookies and pastries



When should I change into new gloves?

- ✓ When changing tasks or a task has been interrupted
- ✓ When they become soiled or damaged
- ✓ After handling raw meat, poultry, fish or eggs
- ✓ After sneezing, coughing, touching the face, or body
- ✓ After touching unclean dishes or trash cans
- ✓ After using chemicals or cleaners



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Always remember:

- ✓ Gloves should only be used for one task – no washing or reuse!
- ✓ Gloves must be worn over polished or artificial fingernails at all times!
- ✓ **Always wash hands after using gloves and before putting on a new pair!**
- ✓ Gloves are not a substitute for handwashing, but provide extra protection.

Starting with Safe Food

The “flow of food” refers to the steps that food goes through from the purchasing of product to the time it is served. Food must be handled safely at every step!

Food Source

All food in food establishments must be obtained from approved sources.

What is an approved source?

✓ Food suppliers that comply with regulations are licensed and inspected.
✗ Home prepared foods or home canned foods may not be used.

➤ Always verify the supplier’s documentation to ensure that they are an approved source.

Meats	Verify that all meats and poultry have the United States Department of Agriculture (USDA) stamp of approval on the packaging.
Sushi	Ask for a parasite destruction letter from your fish supplier for any fish intended To be used for sushi, considered to be sushi-quality, or served raw.
Shellfish	Verify that shellfish have complete, attached tags showing that they came from approved harvest sites. Retain shellfish tags for a minimum of 90 days. Discard any shellfish whose shells do not close.
Raw Eggs	Do not use raw eggs in any ready-to-eat food items (e.g. Caesar salad dressing, hollandaise, meringue) unless the eggs are pasteurized. Eggs must come from a supplier inspected by the USDA or the Pennsylvania Department of Agriculture.



USDA raw meat inspection stamp



USDA raw poultry inspection stamp

Perishable _____ **Your Company Name** _____ Cert. No. _____
 Keep Tel: 1-800-565-3043 Fax: 902-742-9066 NS-000-SS
 Refrigerated 14 Kirk Street, Yarmouth, N.S., Canada BSA 1S7

Original Shipper's Certificate No. (if other than above): _____
 Harvest Date: _____ Shipping Date: _____
 Harvest Location: _____ Process Date: _____

Type of Shellfish: Soft Clams; Oysters; Mussels; _____
 Quantity of Shellfish: _____ Bushels; _____ Lbs;

THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY, OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS.

To:	Reshipper's	Date
	Cert. No.	Reshipped

Shellfish harvesters identification tag

Food Deliveries & Quality

Ensure that all food is wholesome and free of spoilage by inspecting deliveries.

- Check food temperatures and food quality upon delivery:
 - Reject questionable items.
 - Cold food must be 41°F or below when delivered. Use calibrated thermometers to check temperatures of deliveries.
 - Ensure packaging is clean and in good condition.
 - Frozen food must not appear to have thawed and refroze.



- Check cans for dents, swelling or leaks.
- Do not use moldy or spoiled foods. Discard them immediately

Preventing Cross-Contamination

PREVENT THE SPREAD OF GERMS WHEN HANDLING FOOD!

What is Cross-Contamination?

- Cross contamination is when germs that can cause foodborne illness spread from one object to another.
- It can be caused by hands to food, food to food, and food contact surfaces or equipment to food.



What can your facility do to prevent Cross-Contamination?

- ✓ Store raw meats, poultry, fish, and eggs:
 - On the bottom shelf of the refrigerator.
 - Below and separate from cooked and ready-to-eat foods.
- ✓ Use a drip pan under raw meat, poultry, fish, or egg products.
- ✓ Wash, rinse, and sanitize all food contact work surfaces, including cutting boards, sinks, prep tables, slicers, utensils:
 - At least every four hours during continued use.
 - After working with raw meat products and before preparing any other foods.
 - After any potential contamination.
- ✓ Change gloves and wash hands after handling any raw meat, poultry, fish, or eggs.
- ✓ Wear gloves when handling ready-to-eat foods
- ✓ Avoid cross-contact of allergen foods with allergen-free foods.



REMEMBER: SEPARATE, DON'T CROSS-CONTAMINATE!

Tip: Use separate cutting boards and utensils for raw meat, produce and for ready-to-eat food.

Food Storage

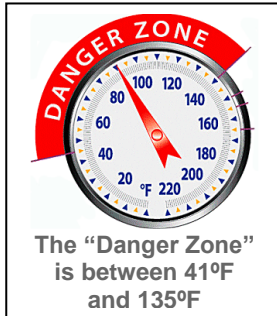
Store food in a protected manner

- Away from walls and at least 6" above the floor.
- Always covered with a lid or food grade film.
- Keep in original packaging or labeled in approved food grade containers.
- Away from chemicals, wastewater lines, or any other possible sources of contamination.
- Keep storerooms cool, dry and well ventilated.



Time and Temperature Controls

The Danger Zone



Proper temperature controls and food handling practices prevent growth of bacteria. The “**Danger Zone**” is the temperature range between **41° F and 135 ° F**. Bacteria grow very rapidly in the Danger Zone. Therefore, proper cooking, cooling, reheating, cold and hot holding temperatures should be carefully monitored.

*The PIC must ensure employees are routinely monitoring food temperatures during hot and cold holding.

Holding Temperatures

Food that requires time or temperature control for safety (TCS) need to be kept out of the Danger Zone as much as possible.

Cold Hold		Includes:
<ul style="list-style-type: none"> ✓ Make sure that refrigerators are working so that food can be kept at 41°F or below. ✓ Do not store food directly on ice; place in pans or containers in the ice. 		<ul style="list-style-type: none"> ✓ Refrigeration ✓ Cold top units ✓ Salad Bars ✓ Transport
Hot Hold		Includes:
<ul style="list-style-type: none"> ✓ Make sure that hot hold equipment is working so that food can be kept at 135°F or above. ✓ Keep the food covered to help keep in heat. ✓ Throw food away that has dropped below 135°F for more than 4 hours. 		<ul style="list-style-type: none"> ✓ Steam tables ✓ Stove tops ✓ Grill tops ✓ Heating cabinets ✓ Transport

*Temperature Logs

We recommend using temperature logs to monitor, record and verify proper temperatures.

Contact us or visit www.bethlehem-pa.gov/Health-Bureau for Sample Logs

Thermometers

Every food service establishment should use metal-stem thermometers for monitoring food temperatures and refrigerator thermometers for monitoring the temperature inside refrigeration units. Both types of thermometers must be accurate and calibrated regularly.

When taking temperatures, remember:

- Clean and sanitize thermometers before use.
- Take the temperature in several places, particularly irregularly shaped items.
- Place stem or probe in the thickest part of the food item.
- Do not rest the stem or probe on a bone or the side of the pot, pan, etc. because this may give an inaccurate reading.
- Make sure the entire sensing area of the thermometer is completely submerged in the food.



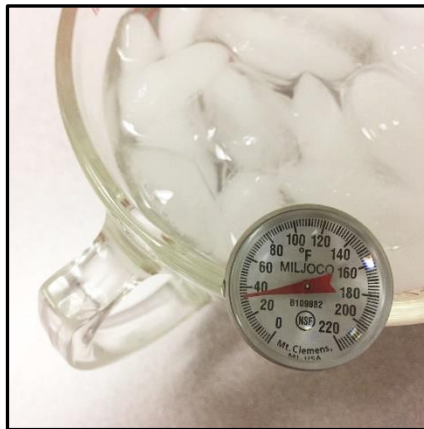
Thermometer Calibration

Make sure your thermometers are working properly and are accurate!

Food thermometers are sensitive instruments. They should be calibrated weekly and every time they are dropped.

How to calibrate? There are 2 ways:

Ice Water Method	Boiling Water Method
<ol style="list-style-type: none"> 1. Add half ice and half water to a container (i.e. glass or cup) 2. Stir the ice water then place the thermometer probe in the ice water with the dial up above water. 3. Keep the thermometer in the container until temperature stabilizes at 32°F. 	<ol style="list-style-type: none"> 1. Add water to a pot or a pan and let the water boil. 2. Place the thermometer probe in boiling water with the dial above water. 3. Keep the thermometer in the pot or pan until temperature stabilizes at 212°F.
<p>Temperatures may read ± 2 degrees Fahrenheit to be considered accurate. If the temperatures are inaccurate, see manufacturer's instructions for details on how to adjust or the thermometer may have to be replaced.</p>	



Preparing Food Safely

Washing Fruits & Vegetables

Increasing numbers of foodborne illness outbreaks have been occurring in recent years due to contaminated produce. All produce should be washed thoroughly:



- ✓ In a prep sink that has been washed, rinsed and sanitized before use.
- ✓ Using a colander and cold running water
 - ✓ Before cutting or preparing (including lemons, melons, avocados, mushrooms, cabbage, squash, etc.)



*****Cut melons, cut tomatoes, and cut leafy greens must be kept refrigerated at 41° F or colder *****

Thawing Foods

Frozen foods must be thawed using methods that maintain temperature control.

Approved Methods of Thawing Include:

- ✓ Refrigeration (move large items to refrigerator 2-3 days before needed)
- ✓ Under cold running water (70 °F or less) that completely covers the food
- ✓ Microwave (if used immediately)
- ✓ Conventional cooking (e.g. hamburger patties, French fries)



Reminder: DO NOT THAW ANY FOOD AT ROOM TEMPERATURE!



Reduced-Oxygen Packaged (ROP) Fish must be thawed carefully

Thawing Reduced-Oxygen Packaged (ROP) Fish













Thawing fish in its ROP packaging presents a high risk for botulism.

If the label states that the product must remain frozen until use, then remove the fish from its packaging:

- ✓ **Before** thawing under refrigeration
- ✓ **Immediately** after thawing under running water

Cooking Temperatures

When *cooking meats, egg products, and other food products, the food must be cooked to the required internal temperature, as listed below.

165°F	<p>Poultry (chicken, turkey, duck); stuffing; stuffed meats & fish; stuffed pasta All foods cooked in a microwave</p> <div style="display: flex; justify-content: space-around;">    </div>
155°F	<p>Ground or chopped meats & fish; eggs hot held for later service</p> <div style="display: flex; justify-content: space-around;">    </div>
145°F	<p>Cuts of beef, pork & lamb; seafood, shellfish; eggs for immediate service</p> <div style="display: flex; justify-content: space-around;">    </div>
135°F	<p>Vegetables; fruits; grains; legumes</p> <div style="display: flex; justify-content: space-around;">    </div>

41°F

DID YOU KNOW?

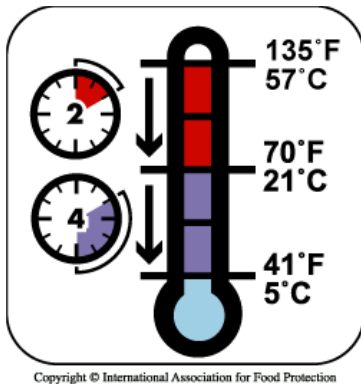
*Normal freezing does not kill bacteria it only stops their growth.
The only practice that kills bacteria is cooking.*

*To ensure that the proper internal temperature is met, use a thermometer to check the temperature in the **thickest** part of the food.

Cooling Procedures

Time or Temperature Control for Safety Foods (TCS) must be cooled as quickly as possible to prevent the growth of bacteria as the food drops through the temperature Danger Zone.

After cooking or heating, TCS foods **must** be cooled quickly!



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Hot Foods: Must be cooled from **135°F to 70°F** within **2 hours or less** and then from **70°F to 41°F** within **4 hours or less**

Note: If foods do not reach **70°F within 2 hours**, foods must be thrown out or reheated to 165°F and then cooled again.

Room-Temperature Foods: (e.g. tuna salad, cut melon, sliced deli meats) must be cooled from **70°F to 41°F in 4 hours or less.**

Cooling Methods:

The **first step** to cooling is to reduce the size of the food by cutting into smaller pieces. Divide large containers of food into smaller containers or shallow pans. Shallow metal pans about 2"-4" deep work best. Use the following method or combinations of methods to cool:

Refrigerator or Freezer

- ✓ Place small containers of food into a refrigerator or freezer.
- ✓ Space the containers to allow airflow around the containers.
- ✓ Leave the food uncovered until it reaches 41°F.
- ✓ Stir regularly.

Ice Bath

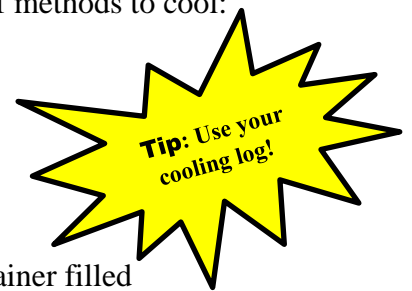
- ✓ Place small containers of food into a clean prep sink or larger container filled with ice water. Make sure the ice water and the food are at the same level.
- ✓ Stir regularly.

Ice Paddle or Wand

- ✓ Paddles are best for soups, gravies, and other thin foods.
- ✓ Stir regularly.
- ✓ Use ice paddles along with the refrigeration or ice bath method.

Add Ice/Cold Water

- ✓ Add ice or cold water to the fully cooked product to help the cooling process.



Divide food into smaller portions



Use shallow metal containers



Ice Bath



Ice Paddle



Add Ice

Microwave Cooking

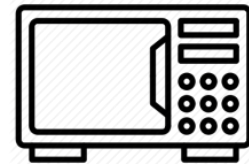
Special steps must be taken when using a microwave to **cook or reheat** foods. Because food temperature rapidly increases when using a microwave, this does not provide the same time and temperature relationship needed to kill microorganisms like conventional cooking methods.

DID YOU KNOW?

Microwave oven interiors and door seals must be cleaned at least every 24 hours.

MICROWAVE COOKED Foods must be:

- ✓ **Covered** to retain surface moisture;
- ✓ **Rotated and stirred** during cooking to compensate for uneven distribution of heat;
- ✓ Heated to a temperature of at least **165°F** in all parts of the **FOOD**; and
- ✓ Allowed to stand covered for at least **2 minutes**.



Reheating Foods

After cooling, all leftovers and pre-made foods must be reheated properly to kill microorganisms. Harmful bacteria are more likely to grow in reheated cooked foods than they are in raw foods.

The total time to reheat a food must not be more than **two hours**.



- Reheat all leftover and pre-made foods to at least **165 °F for 15 seconds within two hours**.
- Reheat commercially processed food for the first time to at least **135 °F within a two hours**.

Approved Methods of REHEATING:

- ✓ Stovetop
- ✓ Oven
- ✓ Microwave
- ✓ Other rapid-heating equipment



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NOTE: Most hot hold equipment is not designed to reheat foods.

Date Marking

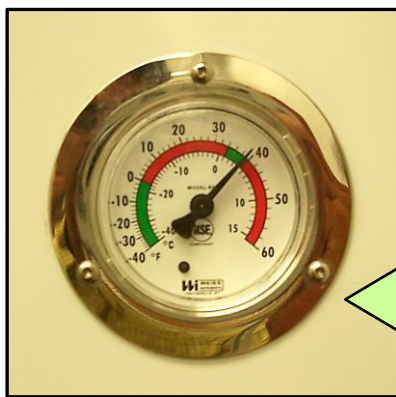
Monitor refrigeration time!

What is date marking?

- ✓ Containers of Time/Temperature Control for Safety foods (TCS foods) are marked so that they are consumed or discarded within **7 days or less**.

Why is it important?

- ✓ Date marking lets your facility monitor and limit the time food has been refrigerated.
- ✓ Refrigerating food for long periods of time will allow for bacteria to grow.



Example of date marking:

Name: Mozzarella
Date: 2/18/16
Use by: 2/24/16

Date-marked food items
should be held at **41°F** or
below!



How do I date mark?

1. Choose which food items need date marking. These include: prepared TCS food or opened commercially processed food that is held for more than 24 hours in the refrigerator.
2. Facilities can date mark using different ways: custom date marking stickers, post-it notes, masking tape, or simply marking on the package or container with a marker.
3. Mark the “use by” date on the food package or container. The “use by” date is **7 days or less** starting on the date the food was prepared or opened.

Time as a Public Health Control

Monitor time food is let out in room temperature!

What is Time as a Public Health Control (TPHC)?

- When a Time/Temperature Control for Safety (TCS) food is kept out of temperature for too long, it allows bacteria to grow. This can lead to foodborne illness.
- TCS food can be kept safe using *time only* when taken out of temperature control (hot hold or cold hold) if you follow certain rules.
- When using TPHC, written procedures must be prepared in advance and maintained in the food establishment. Contact us or visit www.bethlehem-pa.gov/Health-Bureau for a sample TPHC Procedure.
- If a food establishment is using TPHC, it is important to train employees on the process.

How to use TPHC?

The time and temperature must be tracked for a certain amount of time depending on the type of food and the room temperature.

4 Hours (<i>Hot Foods or Cold Foods</i>)	6 Hours (<i>Cold Foods</i>)
<p>1. Hot food must be 135°F or above, and cold food must be 41°F or below when the food item is taken out of temperature control.</p> <p>2. Label the food item or mark a log with the time it was taken out of temperature control and with the time it needs to be thrown away (after 4 hours).</p> <p>3. After 4 hours, the food item must be served right away or thrown away. Do not reuse!</p>	<p>1. If room temperature is 70°F or below, food may be kept out for up to 6 hours.</p> <p>2. Label the food item or mark a log with the time it was taken out of temperature control and with the time it needs to be thrown away (after 6 hours).</p> <p>3. The food must stay between 41°F and 70°F. Set a schedule for temperature checks.</p> <p>4. If the food item is over 70°F at any time during the 6 hours, it must be served right away or thrown away. Do not reuse!</p>

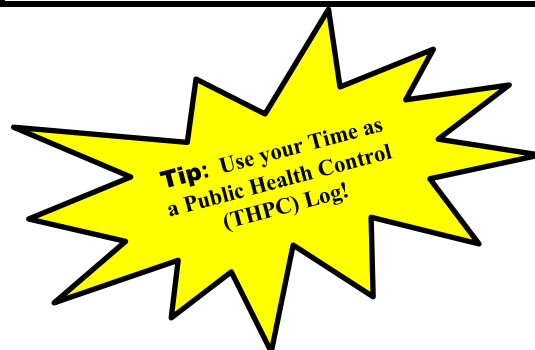
Example:

Day: Monday

Food Item: Pepperoni Pizza

Prep Time: 12:00 PM

Discard Time: 4:00 PM



Cleaning and Sanitizing

DO YOU KNOW THE DIFFERENCE?

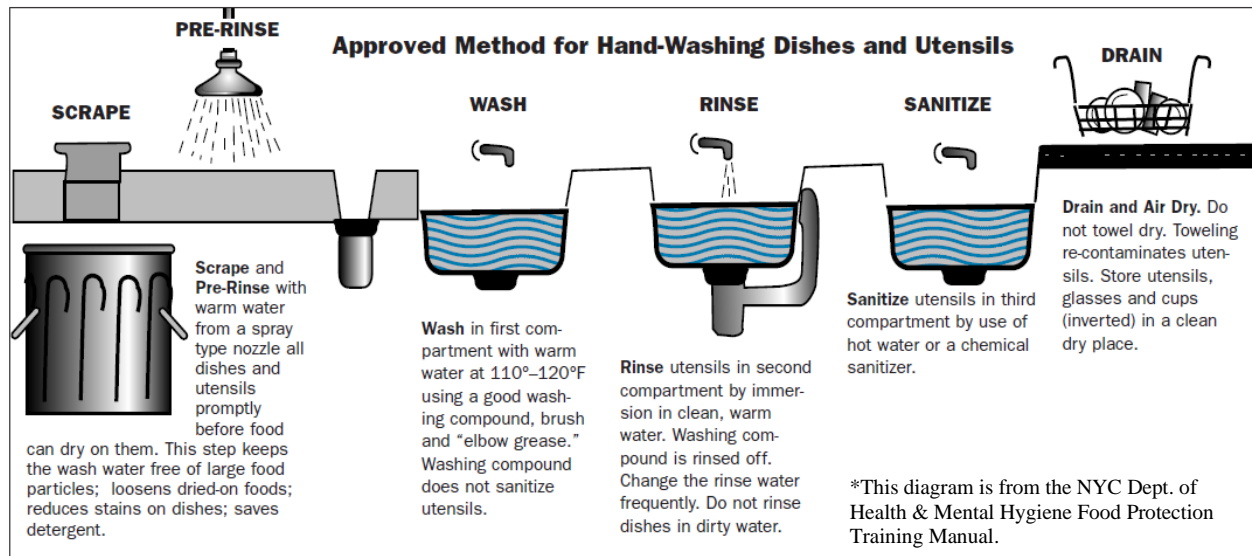
- **Cleaning** is the removal of food particles, other soil, and debris.
- **Sanitizing** is the removal of disease causing microorganisms.

Washing Food Contact Surfaces

ALL food service equipment, including utensils, bowls, prep tables, sinks, cutting boards, slicers, mixers, and anything else that **touches food**, must be **washed, rinsed, and then sanitized**:

- ✓ At least every four hours during continued use.
- ✓ Anytime contamination may have occurred.
- ✓ After preparing raw meat, poultry, fish, and eggs*

*Clean solutions of hot, soapy water; rinse water; and sanitizer solution must be prepared regularly and always after cleaning any utensils, cutting boards, etc. used for raw meat preparation.



Steps to washing in 3 basin sink OR mechanical dish machine:

- Step 1: **Scrape** food debris
- Step 2: **Wash** equipment and utensils in warm soapy water
- Step 3: **Rinse** equipment in warm clean water
- Step 4: **Sanitize** equipment and utensils using approved sanitizer
- Step 5: **Drain** and allow all items to **Air Dry**.



Note: When using mechanical dish machines, always follow manufacturer's instructions for maintenance and use.

Approved Sanitizers

Sanitizers are used to reduce the number of pathogens that may be found on food service equipment. Chemical sanitizers and hot water sanitization are both approved methods for sanitizing equipment.

Approved chemical sanitizers and concentrations:	
Chlorine (bleach)	50-100 ppm. Minimum contact time = 10 seconds
Quaternary ammonium	200 ppm. (unless otherwise specified by the manufacturer) Minimum contact time = 30 seconds
Iodine	12.5-25 ppm. Minimum contact time = 30 seconds

Note: Sanitizer test strips must be used to check for proper chemical sanitizer concentrations.

For use of **Hot Water sanitizing**, the surface of the dish must reach 160°F. In dish machines, the final temperature must reach 180°F on the temperature gauge. In the 3 basin sink, the water temperature must be maintained at 171°F.



Examples of chemical test strips

Wiping cloths

Bacteria grow and multiply in moist environments, therefore wiping cloths must be stored in a bucket of clean sanitizing solution when they are in between uses. These batches of sanitizer solutions should be changed when it becomes extremely soiled, or when the concentration drops below what is required.

Separate buckets of sanitizer must be provided in every work area and for wiping off:

- Raw meat prep areas
- Non-food contact areas (e.g. counters, dining tables)
- Food contact areas (e.g. cutting boards, prep tables, etc.)



Separate wiping buckets

Note: Wiping a surface with a sanitized cloth is NOT the same as cleaning and sanitizing! Wiping cloths are to be used to clean up spills and food debris only.

Storage

Improperly storing clean equipment, utensils, linens and single service items (take out containers, plastic utensils, etc.) could allow them to become contaminated.

Equipment, Utensils & Linens

All food service items must be stored:

- ✓ In a clean, dry location
- ✓ At least 6" off the floor
- ✓ Protected from any source of contamination.



In-Use Utensils

In-use utensils may be stored:

- ✓ In the food or ice, with the handle up and out of the food or ice.
- ✓ On a clean, dry surface that is cleaned and sanitized every four hours.
- ✓ In water 135°F or more or 41°F or below.
- ✓ In running water (ice cream scoops only).

NEVER store in-use utensils in sanitizer or in room-temperature water.

Chemicals

Chemical contamination of food may cause serious injury to the consumer.

Ensure that all chemicals are stored:

- ✓ Below and separate from food and food contact surfaces (e.g. prep areas and utensils).
- ✓ In a designated chemical storage area.
- ✓ In correctly **labeled** containers.

- **Do not** use chemical bottles for food storage (oil, water, sugar, etc.) or food containers for chemical storage.
 - **Do not** mix chemicals or re-use containers for different chemicals.



Store chemicals separately

NOTE: Only chemicals approved for retail food establishment operations are permitted on the premises. All chemicals must be used according to the manufacturer's specifications and the Materials Safety Data Sheets (MSDS) must be kept in the facility.

Equipment and Facility Maintenance

Approved Equipment

All food service utensils and equipment must be approved for use within a retail food establishment:



- ✓ Use only utensils and equipment constructed of food-grade materials (e.g. spray bottles, containers, cookware)
- ✓ Wooden surfaces may not be used in food preparation areas.
- ✓ Do not re-use single-use items (e.g. plastic milk jugs or other food containers).
- ✓ All equipment must be certified by the American National Standards Institute (ANSI), National Sanitation Foundation (NSF), or other accredited certification program.
- ✓ Only use food-grade lubricants in equipment.

Equipment Cleaning and Maintenance

Food service equipment operates best when it is maintained in good condition and kept clean. The build-up of food debris and grease on equipment and in the foodservice establishment may attract pests and otherwise create unsanitary conditions.

Regular cleaning schedules should be maintained for:



Maintain regular cleaning schedules

- ✓ Refrigeration interiors and exteriors (including shelves, compressor coils, fan covers, door gaskets)
- ✓ Ice machines
- ✓ Fryers and grill equipment
- ✓ Ovens
- ✓ Hoods
- ✓ Steamers
- ✓ Beverage machines (soda nozzles, ice chutes)
- ✓ All other kitchen equipment



Pest Control

Control rodents, cockroaches and other pests in the food establishment by:

- ✓ Using a licensed, professional exterminator.
- ✓ Using approved traps.
- ✓ Tightly sealing openings, using screen doors, and fly fans.
- ✓ Keeping equipment and the interior and exterior of the facility clean



NOTE: Only certified Pest Control Operators (exterminators) may apply pesticides.

General Facility Maintenance

Food service establishments must be kept in good sanitary condition, both inside and outside of the facility

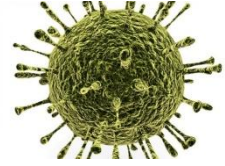
Floors, Walls & Ceilings	Floors, walls, and ceilings should be made of smooth, nonabsorbent materials and maintained clean and in good repair.
Lighting	Light bulbs must be shielded or shatterproof in food preparation areas. Lighting should be maintained and should provide the following levels of light: <ul style="list-style-type: none"> • 50 foot-candles above food preparation and dishwashing areas • 20 foot-candles at utensil storage areas and in toilet and lavatory areas • 10 foot-candles in other areas, including dry storage areas
Restrooms	Restrooms should be kept clean and stocked with toilet paper, soap, and paper towels or approved hand-drying devices. Doors to restrooms must self-close. Women's and unisex restrooms must have a covered waste can.
Clean Linens	Clean linens must be stored in a clean, dry area and protected from contamination (i.e. away from chemicals, wastewater lines, etc.). <ul style="list-style-type: none"> • Laundry facilities (washer and dryer) must be kept clean and located separately from food preparation areas.
Backflow	Any water fixture that has a threaded faucet must have an approved backflow prevention device.
Plumbing	Plumbing must be kept in good condition and free of leaks, duct tape, plastic wrap, or other unapproved repair materials.
Mop Sinks	Mop sinks must be used for disposal of mop water and chemicals. These sinks may not be used for any other purpose (i.e. dishwashing, food preparation, handwashing). They must be kept clean and in good condition.
Waste & Recycling	Garbage and recycling containers should be kept clean and inaccessible to pests. Containers must be large enough to handle all garbage and recycling.
Sewage	All sewage systems must be properly operating. Sewage backups create an imminent health hazard and must be immediately remedied: <ul style="list-style-type: none"> • Contact a licensed plumber. • Close the kitchen or the area where the backup occurred until it is repaired.
Grease	Grease/oil must be disposed in an approved bin or grease trap that is regularly serviced and kept clean. Cleaning of equipment and pumping grease traps must be done in a sanitary manner that does NOT contaminate the outside area.
Ventilation	Hood systems and other ventilation should be kept clean and balanced for proper air flow.

Clean-up and Disinfection for Norovirus

Be prepared to protect yourself and customers from getting sick with Norovirus!

What is Norovirus?

- It is a virus that is easily spread by person to person contact, eating food contaminated by an ill food worker or by touching surfaces (door knobs, countertops, faucets, etc.) that have been contaminated with the virus.
- The virus affects the stomach, causing vomiting and diarrhea.
- Any vomit or diarrhea may contain norovirus and should be treated as though it does.
- People will start seeing symptoms 12-48 hours after they are infected.
- Infected people can spread the illness for at least three days after they feel better.



How to respond to a vomiting or diarrheal accident?	Suggested supplies:
<p>1. <u>CLEAN UP!</u></p> <p>A. Wear protective clothing (i.e. disposable gloves, apron, mask). Use paper towels and absorbent material (i.e. baking soda, kitty litter) to cleanup vomit or diarrhea right away. Throw dirty paper towels into a plastic trash bag.</p> <p>B. Wash the area with soap and hot water along with nearby surfaces that may have been touched (i.e. door knob, toilet handle). Rinse carefully with water and wipe with paper towels until dry.</p>	<p>Assembling and storing these supplies in a 'kit' to allow for easier access and rapid response.</p> <ul style="list-style-type: none"> ✓ 'Caution! - Wet Floor' signs or safety cones ✓ Eye protection ✓ Disposable gloves (vinyl, latex or rubber) ✓ Disposable mask ✓ Disposable plastic apron ✓ Biohazard clean-up kits which would include: <ul style="list-style-type: none"> • Liquid spill absorbent material • Disposable shovel or scrapper • Disposable bags and bag ties • Disinfectant rated for Noroviruses (such as bleach) ✓ Paper towels ✓ Several plastic trash bags and bag ties ✓ Disinfectant and applicators (effective against viruses, including norovirus) ✓ Sanitizing solution ✓ Mop and mop buckets (note: mops are not recommended for clean-up, unless mop head is immediately discarded after use) ✓ Buckets for cleaning solutions ✓ Spray bottles and/or portable hand pump spray applicator
<p>2. <u>DISINFECT!</u></p> <p>A. Hard surfaces can be cleaned with a chlorine bleach mixture using 1 ½ cup of regular strength bleach (5.25%) + 1 gallon of water.</p> <p>B. Apply bleach and let it sit for 5 minutes.</p> <p>C. Rinse bleach off of all food-contact surfaces before use.</p>	
<p>3. <u>WASH HANDS!</u></p> <p>A. Carefully take off and throw away dirty gloves and other protective clothing if used. Clothing and cloths used for clean-up can be machine-washed with hot water, detergent, and bleach if needed.</p> <p>B. Use hot water and soap to wash hands carefully for at least 20 seconds!</p>	

Note: The FDA Food Code requires food facilities to have a plan for vomiting & diarrheal accidents. You may set up a plan with these CDC-recommended steps.

Fire Safety

Restaurant kitchens are always at risk of a fire, so it's essential to have the best preventative maintenance and fire safety protection equipment available. Take note of these few important measures from the City of Bethlehem Fire Department to help keep your business safe from a fire.

- ✓ *****Kitchen Suppression System** – Semi-annual testing and inspection.
- ✓ *****Hood Cleaning** – Kitchen hood is required to be cleaned every 6 months at a minimum, but may be cleaned every 3 months or monthly as needed.
- ✓ **Fire extinguishers** – Proper type, distance, location and mounting/installation.
- ✓ **Emergency Exit lighting** – All lighting must function and must be tested monthly for 30 seconds & annually for 90 minutes.
- ✓ **Illuminated Exit Signs** – All signs must function as designed.
- ✓ **Exit Doors** – All doors must function as designed, and must be appropriate for maximum occupancy.
- ✓ **Maximum Occupancy** – Must post maximum occupancy.
- ✓ **Storage** – Vertical combustible storage must be more than 24” from the ceiling in a non-sprinkled building & more than 18” in a sprinkled building.
- ✓ **Walk-in Cooler** – Must have a safety bulb cover over light bulb & must have a properly working emergency door function.
- ✓ **Fire Stopping** – Walls & Ceilings must have proper smoke/fire stopping with no holes.
- ✓ *****Fire Alarms** – Must provide annual test & inspection report.
- ✓ *****Sprinkler Systems** - Must provide annual test & inspection report.
- ✓ **New facilities** – Must have a working phone system with correct business information via 911. Business signage must be correct.



***All testing, cleaning and inspection reports must be submitted by contracting company onto the City of Bethlehem Fire Department's Compliance Engine.



The City of Bethlehem Fire Department's Fire Inspection Program promotes a proactive approach to fire safety.

For a copy of the complete Fire Safety Checklist and additional questions can be directed to the Fire Marshal's Office or Bureau of Inspections at (610) 865-7143 or FirePrevention@bethlehem-pa.gov

Other Health and Safety Information

Food Recalls

What is a Food Recall?

A food recall is when a food producer takes a product off the market because there is reason to believe that it may cause consumers to become ill. Food recalls may happen for many reasons, including but not limited to:

- Discovery of microorganisms that can make people ill.
- Discovery of foreign objects such as broken glass or metal.
- Discovery of a major allergen that does not appear on the product label.

What to do with a recalled food product?

- ✓ Identify the recalled food items
- ✓ Remove the item from inventory,
- ✓ Store the item separately
- ✓ Label the item in a way that will prevent it from being placed back in inventory
- ✓ Inform staff not to use the product
- ✓ Refer to the vendor's notification or recall notice to determine what to do with the item

Fats, Oil and Grease (FOG)

What is FOG?

Fats, oil and grease (FOG) is composed of animal and vegetable fats and oils that are used to cook and prepare food. When washed down the sink, FOG can stick to the inside of sewer pipes.

FOG build up can cause:

- Raw sewage back-up and overflows in your business or City infrastructure;
- An expensive and unpleasant clean up;
- Potential contact with disease-causing organism; and
- An increase in operation and maintenance cost for the City sewer department.

What you can do to help eliminate FOG from the sewer system:

- ✓ Never pour grease down sink drains.
- ✓ Inspect and clean all waste grease removal devices (grease traps) regularly. Also keep records of maintenance performed and manifests of waste hauled off site.
- ✓ Dispose of food waste by scraping them into the garbage or dedicated recycling containers.
- ✓ Dry-wipe all pots, pans and dishware before washing. This will keep FOG out of traps and interceptors as well.
- ✓ Recycle waste cooking oil. There are companies who specialize in taking used cooking oil.
- ✓ Clearly post "NO GREASE" signs.



A typical grease trap

Emergencies

In the event of a flood, fire, power outage, sewage backup, water shortage, or other emergency, potential health hazards may exist. Never enter a building damaged by flood, sewage or fire until it has been cleared by the proper authorities. If the facility experiences an emergency due to a disaster or other reason, **immediately cease all food service operations** and call Bethlehem Health Bureau (emergency line) at **610-865-7187**

Establishments that are required to cease operations during an emergency or those affected by a natural disaster should not reopen until it is deemed safe to do so by the Bethlehem Health Bureau and all other necessary agencies.

Fire

If there is a substantial fire, the facility may need to submit a plan review and/or apply for building permits. If a small fire occurs (e.g. under the hood), follow these instructions:



- Discard all exposed food and single-service products that may have been contaminated by water, smoke, chemicals, or other contaminants.
- Discard all potentially hazardous foods that have been stored in the danger zone (41°F - 135°F) for four hours or more.
- Wash-rinse-sanitize all equipment and surfaces that have been contaminated.
- Ensure that electricity and water services are operational.

Water Shortage or Power Outage

Food establishment operations must have running water and electricity at all times for proper handwashing, cleaning, food preparation, temperature control, etc. Any potentially hazardous foods held in the danger zone (between 41°F and 135°F) for more than four hours must be discarded. This includes items in walk-in refrigerators and freezers.

Flood or Sewer Backup

Many harmful microorganisms and chemical residues may exist in floodwater and sewage. After the proper authorities have cleared the facility for you to return, follow these steps to ensure that food service operations may resume without compromising food safety:

- Discard all food, single-service items, and packaging materials that have been contaminated by floodwaters or sewage.
- Discard all refrigerated and frozen foods if electricity was turned off during or after the incident for more than four hours.
- Thoroughly wash, rinse, and sanitize **ALL** surfaces, utensils, and equipment.
- Ensure that all refrigeration units are capable of maintaining temperatures of 41°F or below and all equipment is working properly.



Important Phone Numbers/Contacts

Bethlehem Health Bureau – (610) 865-7083 <https://www.bethlehem-pa.gov/Health-Bureau>

Poison Control – 1-800-222-1222

Medical Emergencies – 911

Fires – 911 for non-emergencies – (610) 865-7187

Police – 911 for non-emergencies – (610) 865-7187

Emergency Phone Number for managers or owner (write in) - _____

Federal Agencies

USDA's Meat and Poultry Hotline – (800) 535-4555

FDA's Food Safety Hotline – (888) 723-3366

FDA General Inquiries – (888) 463-6332

FDA Complaint Hotline (about wholesale items) – (877) 689-8073

O.S.H.A. Allentown Office – (610) 776-0592

FDA recall information: www.fda.gov/opacom/7alerts.html

USDA recall information: www.fsis.usda.gov/fsis_recalls/index.asp

USDA interactive website: <http://askfsis.custhelp.com/>

National Pesticides Information Center – (800) 858-7378

Pennsylvania Agencies

PA Department of Agriculture Bureau of Food Safety and Laboratory Services – (717) 787-4315

PA Bureau of Weights and Measures – (717) 787-9089

PA Liquor Control Board – (610) 940-1200

P.A. Department of Occupational & Industrial Safety – (717) 787-3323

PA Terrorism Tip Line – 1-888-292-1919

City of Bethlehem Departments:

Sewer and Water Resources Department – (610) 865-7070 for emergencies – (610) 865-7077

Public Works Department – (610) 865-7053

Building Permits – (610) 865-7091

Business Licenses (tax office) – (610) 865-7022

Community and Economic Development Department – (610) 865-7085

Recycling – (610) 865-7082

Garbage Haulers (list) – (610) 865-7083

Additional Tips and Information

Self-Inspection

Self-inspections and food safety checklists are great tools for managers and staff to make sure their facility is following good practices. Self-inspections also help facilities prepare for regular inspections by the Bethlehem Health Bureau. Contact us or visit www.bethlehem-pa.gov/Health-Bureau for a sample food safety checklist and self-inspection forms.

Plan Review

City of Bethlehem Code Enforcement and Health Bureau require that food facilities undergo the plan review process and obtain all necessary permits before performing construction, remodeling, conversion of an existing structure or alteration of a food service facility.

For more information, contact City of Bethlehem Code Enforcement at (610) 865-7097.

Thank you

Your role in food safety is very important. As a food worker or manager, it is your responsibility to make sure that the food you serve is safe to eat. Your customers count on you to prepare and serve their food in a clean and sanitary manner.

For more information or other food safety resources contact us at:

Bethlehem Health Bureau
10 E. Church St
Bethlehem, PA 18018
610-865-7083

The information provided in this manual is based on the FDA Model Food Code, but it does not represent all requirements of established regulations. To download a copy of the Pennsylvania Chapter 46, Food Establishment Rules and Regulations, visit our website at www.Bethlehem-pa.gov/Health-Bureau

References and Additional Resources

1. The Centers for Disease Control and Prevention (CDC)
www.cdc.gov/
2. U.S. Food and Drug Administration (FDA)
www.fda.gov/
3. U.S. Department of Agriculture (USDA)
www.usda.gov/
4. Food Safety Gateway
www.foodsafety.gov/
5. Pennsylvania Department of Agriculture
www.agriculture.pa.gov/
6. Fairfax County Health Department, Virginia
www.fairfaxcounty.gov/health/fairfax-county-health-department
7. Boulder County Public Health, Colorado
www.bouldercounty.org/families/food/food-safety-program/

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