

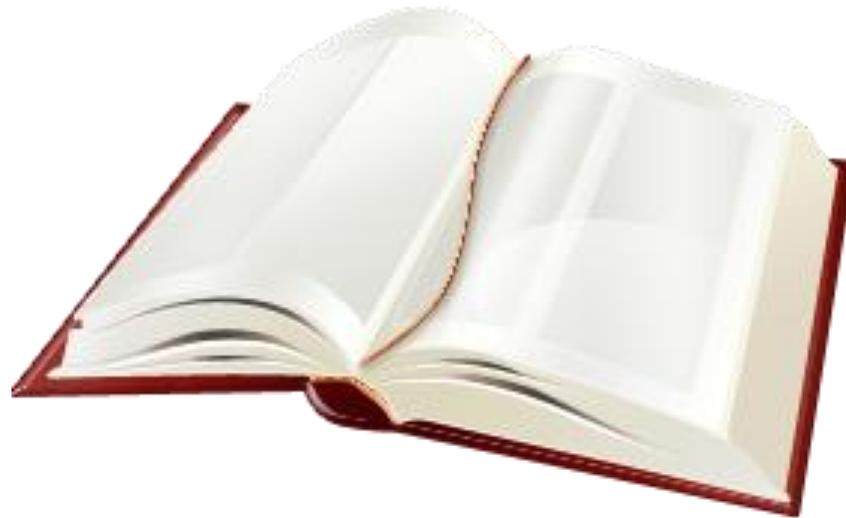


# Food Safety System Tool Kit

*Provided by Denver Department of Environmental Health,  
Public Health Inspection Division*

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# Definitions



## Definitions

Throughout this toolkit, you will find words that are italicized with an asterisk\*. This indicates that you can find the definition of the word in this section.

- **Food contact surface:** *Food contact surfaces* are surfaces that food will touch. They include cutting boards, prep tables, utensils, prep sinks, straws, plates, etc.
- **Ice bath:** An *ice bath* is a tool to assist with the cooling or cold holding of food. To create an *ice bath*, place a container of food in a larger container filled with ice and some water. The level of the ice/water mixture should come at least as high as the level of the food in the container. When using an *ice bath*, stir the food periodically to keep all food in the container cold.
- **Non-potentially hazardous food:** A food that will not support the growth of bacteria at room temperature, such as crackers, most baked goods (cookies and cakes), canned foods, etc. Most shelf-stable foods are *non-potentially hazardous*. *Non-potentially hazardous foods* can be stored at room temperature.
- **Potentially hazardous food:** A *potentially hazardous food* supports the quick growth of bacteria. These foods are foods that typically need to be kept in a refrigerator such as meats, dairy products, cooked pasta and rice, soups, gravies, etc. Some types of produce, like sliced melons, sliced tomatoes, and alfalfa or bean sprouts, are *potentially hazardous foods* too. *Potentially hazardous foods* must be kept at 41°F or colder or 135°F or warmer except for brief periods of preparation.
- **Ready-to-eat food:** A *ready-to-eat food* is a food that will be served without going through another cooking process. All the foods that are used in the kitchen will become *ready-to-eat foods* after being cooked for the last time (foods that are served without being cooked are always considered ready-to-eat). Bare hands cannot be used to handle *ready-to-eat foods*.

## How To Use This Toolkit

This toolkit is designed to assist you in creating an effective food safety system in your facility. Review all sections of the toolkit, and create a system to monitor food safety issues that are relevant to your operation. You are required by your retail food license to check food safety issues thoroughly and adequately on a daily basis so that you can identify and address any problems that exist. If a food safety problem is found during an inspection, then you need to change your food safety system to better monitor that problem.

The Denver Department of Environmental Health recommends the following:

- Review this toolkit and create a daily checklist of any issues that are relevant to your operation.
- Review your facility's inspection reports from the last 18 months. Ensure that any issues that have been in violation are especially well-addressed in your checklist.
- For assistance in creating a daily checklist, contact an inspector by calling the City & County of Denver. From inside the City & County of Denver, call 311, or from outside the City & County of Denver, call 720-913-1311 and request a consulting visit. An inspector will conduct a non-regulatory training visit and provide you with feedback regarding your operation.
- Try to make sure that somebody with a vested interest in your business is present everyday. Facilities where owners are not present often tend to have more food safety problems because employees may not have the same level of concern for the performance of the business.
- The Denver Department of Environmental Health can provide on-site training for your staff at a low cost and at a time that is convenient for you. From inside the City & County of Denver, call 311 or from outside the City & County Denver, call 720-913-1311 and request information about food safety training.
- Make sure you know where to find the complete Denver Retail Food Establishment Rules & Regulations. They are available at [www.denvergov.org/phi](http://www.denvergov.org/phi). Select "regulations" from the vertical menu on the left of the screen.

**Chemical Use & Storage**

**NOTICE**

**FOOD STORAGE  
ONLY**

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**NO CHEMICALS IN THIS UNIT**

## Chemical Use & Storage

- Chemicals should not be stored above food, food preparation areas, or *food contact surfaces*\* (plates, cups, napkins, cooking utensils, eating utensils)
- Chemical containers must be labeled to indicate each container's contents.
- Manufacturer's information must be present in the facility for all chemicals being used.
- Chemical containers should not be reused as food storage containers.
- Sanitizer should not be used at toxic levels.
- Follow the manufacturer's directions for use of chemicals.
- Test strips should be used to check if sanitizer is too weak or too strong.

## Sanitation



Sanitizing solution should be used in the kitchen to sanitize food contact surfaces (cutting boards, prep sinks, and prep tables) and utensils prior to use.

Sanitizing solution is used in the following 3 ways:

- Stored in buckets and used with wiping cloths to sanitize prep tables, prep sinks, and working utensils.
- In the third compartment of the 3-compartment sink to sanitize all dishes that are washed.
- As the final rinse in the dish machine to sanitize all dishes that are washed.

## Sanitation

- Sanitizer must be used at the correct concentration in the dish machine, 3-compartment sink, and sanitizing buckets.
- Sanitizer buckets must be set up at all times in areas where food is being handled.

Sanitizer	Concentration
Chlorine	50 – 200 ppm
Quaternary Ammonia	100 – 400 ppm (follow manufacturer’s instructions)
Iodine	12 – 25 ppm

*Concentration if measured in parts per million (ppm).*

- Check sanitizer solutions using test strips at least every 2 hours to make sure the solution is at the correct concentration.
- 3-compartment sink only needs to be set up during dish washing (see below).



- Wiping cloths must be soaked with sanitizer when cleaning \**food contact surfaces* (like cutting boards, prep tables, slicers, etc.)
- Use proper test strips for the type of sanitizing chemical you are using. (different types of sanitizers require specific test strips).

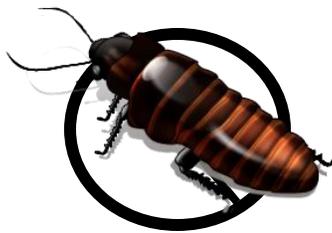
## Pest Control



## Pest Control

### *Keep pests away by:*

- Keep food and crumbs away from pests.
- Keep pests from entering the facility by eliminating gaps under doors, holes in window screens, walls, etc.
- Eliminate cluttered areas where pests may like to hide.
- Keep dumpster lids closed and dumpster areas clean.
- Keep outside of facility clean.
- Remove standing water, food, and grease build-up in the facility.
- Do not leave dirty dishes or open food containers out at night.
- Use mouse traps and glue boards.
- Special pesticides that are approved for use in restaurants can be obtained from food supply companies or pest management companies.



### *Do not use:*

- Do not use household pesticides such as: Black Flag, Raid, D Con, etc.

## Food Source



- All food items sold need to come from a licensed commercial kitchen.
- Foods prepared in the home can NOT be sold.

### ***Fish & Shellfish***

- Most fish that is not going to be fully cooked must be frozen to  $-4^{\circ}\text{F}$  or colder for at least 7 days or  $-31^{\circ}\text{F}$  or colder for at least 15 hours. This requirement does not apply to most species of tuna. Seared salmon, ceviche, and sashimi are some examples of menu items that need to comply with this requirement.
- If you freeze the fish at your facility, you must keep detailed logs of your freezing system onsite for at least 90 days (ask your Public Health Inspector for any assistance or questions).
- If you receive frozen fish that will not be fully cooked, you can ask your supplier if they have met freezing requirements; if so, you may obtain a letter from the supplier stating this.
- If you receive fresh un-shucked shellfish such as clams, mussels, and oysters you must have shellfish tags from your supplier and keep them onsite for 90 days.

## **Food Source**

- Shellfish tags must stay with the shellfish batch until used. Different shellfish batches cannot be mixed together in storage.

### ***Fruits & Vegetables***

- All fresh fruits and vegetables must be washed in an “indirectly drained” food preparation sink prior to cutting or using.
- Garnishes used in drinks or meals must be washed too.
- Any produce that will be cut with the skin intact needs to be washed prior to slicing.
- Fruits and vegetables must be placed in a clean sanitized container after washing.

### ***Eggs***

- Pasteurized eggs must be used as a substitute in any menu items that are not fully cooked, including Caesar dressing, Hollandaise sauce, Béarnaise sauce, homemade ice cream or icing, homemade mayonnaise, etc.

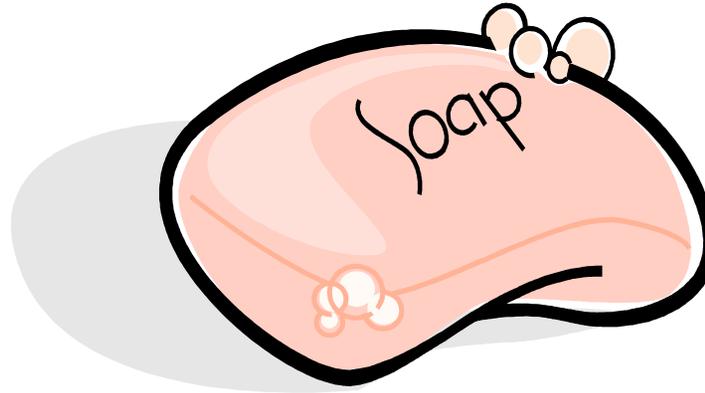
### ***Ice***

- Do not store any food, drink, or other containers in ice that will be used in beverages.
- Ice scoop may be stored in a clean container or holder or ice scoop may be stored in ice if the handle is kept out of the ice.
- Do not use cups, shakers, or other utensils without handles to scoop ice.

### ***Receiving Food***

- Check all food products to ensure they are in good condition when receiving them from your supplier.
- Look for dented or bulging cans. Separate them from other foods.
- Look for damaged or spoiled products. Separate them from other foods.
- Check temperatures on all incoming cold food products to verify they are at 41°F or less.
- Do not accept products if they do not meet your inspection standards.

## Hygienic Practices



### ***Hand Washing Sinks***

- A special hand washing sink is required for hand washing in any area where food is handled.
- Hand washing sinks must have hot water (at least 90°F) and cold water.
- Objects must never be stored in front of the sink or inside the sink's basin.
- Hand washing sinks are not to be used to fill pitchers or buckets. They also cannot be used as dump sinks.
- Hand washing sinks cannot be used for ANYTHING except washing hands.
- Hand soap and paper towels (or other single-use drying devices) must be available at the hand washing sink to wash and dry hands.

### ***Hand Washing***

- Using hand sanitizer cannot be substituted for hand washing with soap and warm water. However hand sanitizer can be used in addition to regular hand washing.
- Hands must be washed after you:
  - handle raw animal products (raw beef, chicken, fish, etc.)
  - return from a break
  - handle money
  - touch your face, hair, hat, cell phone, or any other source of contamination
  - use the restroom
  - between changing gloves
  - after touching any other sources of contamination

## Hygienic Practices

- Bare hands cannot be used to handle *ready-to-eat foods*.\* *Ready-to-eat foods* are foods that will not be cooked again after you handle them. They include salads, sandwiches, cake, drink garnishes, a steak off the grill, cooked fries, etc. Instead, you can use deli tissue, tongs (or many other utensils), or gloves.

### **Gloves**

- You must change your gloves when you touch a source of contamination, such as:
  - Raw animal products (raw turkey, eggs, sausage, etc.)
  - Common items that are not sanitized regularly, like door knobs, light switches, phone trashcan, etc.
  - Your face, hair, cell phone, hat, etc.
  - money
- Remember to always wash hands between changing gloves.
- Gloves cannot be washed or reused. After a glove comes off your hand, it should ALWAYS go straight into the trash.
- Gloves must be changed if they are torn or punctured.
- Never blow into gloves.

### **Jewelry**

- Food handlers may wear a single ring and no other jewelry on hands or wrists.

### **Dry Wiping Cloths, Towels, Rags**

- Dry wiping cloths, towels, rags, etc. must not be used for wiping hands or food contact surfaces.

### **Personal Drinks or Food**

- Personal drinks must be covered with a lid and straw or stored in an enclosed container
- Personal drinks must not be stored above, on, or beside food preparation or food storage areas.
- Staff must not eat food, suck cough drops, or chew gum in food preparation areas.
- Smoking is not permitted indoors or around food preparation or food storage areas.

### **Cuts, Sores, Wounds, & Illness**

- Cuts, sores, and wounds must be covered with a water proof bandage AND a finger cot or glove during food handling.
- You can NOT work if you have vomiting or diarrhea.
- You are required BY LAW to inform the person in charge if you have vomiting or diarrhea or any illness that can be passed through food.

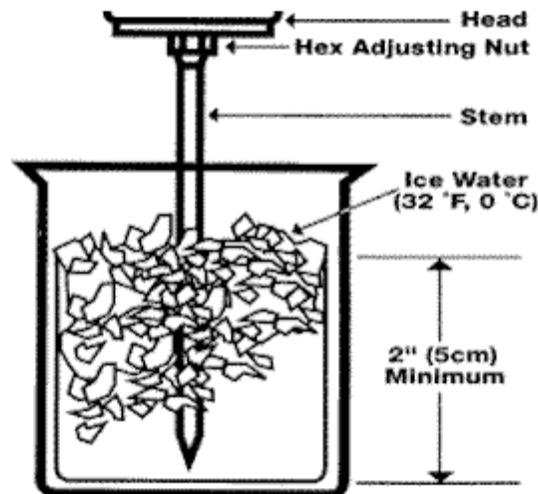
# Food Temp Control

## Thermometer

- You must have a probe-type food thermometer that measures from 32°F or lower to 165°F or higher.
- The food thermometer should be used every day to check food temperatures.

## Thermometer Calibration

- Before you use the food thermometer, you need to check that it is accurate by calibrating it.
  - Step 1: Place the thermometer in a container of ice water (more ice than water)
  - Step 2: Leave thermometer in ice water for about 2 minutes
  - Step 3: Look at the temperature—it should read 32°F.
  - Step 4: If the thermometer does not read 32°F, adjust the “hex adjusting nut” until it reads 32°F.
- You may need to use pliers when calibrating the thermometer.
- Calibrate new thermometers before first use.
- Calibrate thermometers regularly to ensure they are accurate.



# Food Temp Control

## Cold Holding

- *Potentially hazardous food*\* (meats, dairy, cooked pasta, cooked rice, soups, gravy, etc.) need to be held at 41°F or colder, or 135°F or warmer.
- Refrigeration units should be set at 35°F to 37°F to ensure that food stays at 41°F or colder.
- To allow for proper air flow, do not overstock refrigeration units.
- Check refrigerators throughout the day to ensure they are keeping food at 41°F or colder.
- Refrigeration units must have a thermometer in the top third of the unit to measure temperature.
- When using an *ice bath*\* to keep foods cold, the ice-water mixture must be at least as high as the food level in the container.
- Using metal containers to hold *potentially hazardous foods*\* instead of plastic or glass containers will help keep food colder.
- Check temperatures of food stored in different parts of the refrigerator to see whether there are “warm” spots.
- You are required to check temperatures of food and refrigerators every day by using a food thermometer.
- Keep refrigeration units clean and in good working order. Keep gaskets in good condition, repair the condenser if it leaks, and keep shelves clean.
- Defrost refrigerator if there is a build-up of ice. Ice can keep air from flowing properly and can make your refrigerator warmer.

## Thawing Foods

- The following methods are acceptable for thawing foods:
  - Completely immerse the food under cold running water.
  - Thaw the food in the microwave (if cooking immediately)
  - Thaw the food as part of the cooking process.
  - Thaw the food in a refrigerator.
- No part of the food product can be above 41°F for more than 4 hours when thawing.
- Do not use the oven to thaw foods because it causes them to become too warm.

## Cooling Foods

- Foods must be cooled from 135°F to 70°F in 2 hours or less and from 70°F to 41°F in 4 more hours (6 hours total).
- Do not allow food to sit at room temperature for more than 30 minutes after cooking.
- Cool items such as rice, beans, mashed potatoes, etc. on thin metal pans with the food no deeper than 2 inches.
- Leave foods uncovered while cooling.
- Once foods are completely cooled to 41°F or colder, you can put them in larger storage containers.
- Use metal pans instead of plastic or glass because they cool food faster.

## Food Temp Control

- For large food items like lasagna, prime rib, etc., cut the food into smaller pieces to speed the cooling process.
- An *ice bath*\* can be used to cool items such as soups, sauces, and gravies.
- Stir food regularly during the cooling process.
- Use a food thermometer to ensure foods are cooling properly.

### Hot Holding

- *Potentially hazardous food*\* (meats, dairy, cooked pasta, cooked rice, soups, gravy, etc.) need to be held at 134°F or warmer or 41°F or colder.
- Always use a food thermometer to check that foods are hot enough on steam tables under heat lamps, and on other hot holding equipment.

### Cooking Temperatures

- Cook foods to the proper internal temperature.

Temperature	Holding Time	Type of Foods
165°F	15 Seconds	• Poultry (chicken, turkey, duck, goose) • Soups, stews, stuffing, casseroles, mixed dishes • Stuffed meat, poultry, fish and pasta • Leftovers (reheating) • Foods cooked in microwave oven
155°F	15 Seconds	• Hamburger, meatloaf and other ground meats • Fresh shell eggs that are cooked and held for service (such as scrambled)
145°F	15 Seconds	• Whole beef, corned beef, pork, ham roasts (hold 4 minutes) • Beef, lamb, veal, pork-steaks or chops • Fish, shellfish • Fresh shell eggs (must be broken, cooked, and served immediately)

- Precooked food items that will be served immediately, such as roast beef au jus, hot dogs, etc., do not have to be heated to a specific temperature.

### Reheating

- Food items that will be held hot on a steam table, under a heat lamp, or on any other hot holding equipment must be reheated to 165°F or warmer within 2 hours.
- Stove top, oven, steamer, microwave, etc. are acceptable ways of reheating.
- Most steam tables cannot be used to reheat foods, but check manufacturer's information to see if yours can be used for this purpose.

