

# San Diego County Training Supplement to the ServSafe® Food Handler Online Course



To pass the examination at the end of the ServSafe® San Diego County Food Handler Online Course, you must learn the content of this supplement in addition to what you learn in the course. We highly recommend that you study this supplement after you have finished the training portion of the course but before you take the examination.

The content of this supplement is used with permission from the County of San Diego's Department of Environmental Health, Food and Housing Division. For more information about food handling in the County of San Diego, visit [sdcounty.ca.gov/deh/food/foodhandler.html](http://sdcounty.ca.gov/deh/food/foodhandler.html).

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## Major Causes of Foodborne Illness

The Centers for Disease Control and Prevention (CDC) have identified the following food safety risk factors as the major causes of foodborne illnesses:

- 1 Poor personal hygiene
- 2 Improper food holding temperatures
- 3 Improper cooking temperatures
- 4 Contaminated equipment
- 5 Food from unsafe sources

It is very important to control these risks at all times so food can be safe!

## Additional Information about Biological Contamination

### Naturally occurring pathogens

Some food items contain germs, also known as pathogens, naturally. Killing pathogens is one of the reasons you must thoroughly cook meat, fish, chicken, and eggs. If food is heated to a high-enough temperature, the pathogens will be killed and illness will be prevented.

Note that you cannot always tell that food has been contaminated. Sometimes pathogens will make food smell bad, letting you know that the food must be thrown out. Some contaminated food, however, may not look, smell, or taste bad from pathogens.

### Toxins

Toxins are poisons produced by bacteria. Toxins are not living organisms, and they are hard to destroy. Some food already has bacteria in it, so you must keep that bacteria from growing and making toxins. You can do this by keeping food out of the temperature danger zone.

## Bare-Hand Contact with Ready-to-Eat Food

The California Retail Food Code (CALCODE) requires you to minimize bare-hand contact with ready-to-eat food. This means you must use a utensil or gloves when handling ready-to-eat food. Use clean single-use gloves or clean kitchen utensils to mix, prepare, and serve ready-to-eat food.

## Additional Information about Handwashing

- Food handlers are the number one cause of the spread of pathogens to food.
- In addition to the times mentioned in the course, you must also remember to wash your hands after returning from a break and any time you change tasks.
- Be sure to use soap from a dispenser (no bar soap).
- Each handwashing sink should have warm water at least 100°F (38°C), but not to exceed 108°F (42°C) if at a mixed water faucet.

## What to Do When You Are Sick or Injured

Follow these rules if you are sick or injured.

**Tell the person in charge if you have been diagnosed with one of the following gastrointestinal illnesses:**

- *Salmonella*
- Hepatitis A
- *Shigella*
- Enterohemorrhagic or shiga toxin-producing *E. coli*
- Norovirus
- *Entamoeba histolytica*

Remember: you should not work with food or utensils if you are sick with gastrointestinal illnesses, especially if you experience diarrhea, cramps, fever, or vomiting. Tell the person in charge if you have any of these symptoms.

**Tell the person in charge if you have a lesion or wound that is open or draining on your hands, wrists, or arms.**

Remember: all lesions and wounds in these areas must be protected with an impermeable cover (such as a finger cot or stall) and covered with a glove if the lesion is on your hands. Lesions on other parts of the body should be covered by a dry, durable, tight-fitting bandage.

## What Happens When You Are Sick

Once you have told the person in charge of your operation that you are sick, that individual must do the following:

- **Report to the Department of Environmental Health if you have been diagnosed with one of the gastrointestinal illnesses listed in the previous section by calling (858) 505-6814.**
- **Report to the Department of Environmental Health if two or more employees are sick with acute gastrointestinal illness by calling (858) 505-6814.** Acute gastrointestinal illness is defined as diarrhea, either alone or with vomiting, fever, or abdominal cramps. It can also be two other gastrointestinal symptoms, such as fever or abdominal cramps.
- **Prevent yourself from working in the operation if you are diagnosed with one of the gastrointestinal illnesses listed in the previous section.** Only the County of San Diego Department of Environmental Health (DEH) or the County Health and Human Services Agency (HHS) can authorize an excluded employee to go back to work.
- **Restrict yourself from working with exposed food, clean equipment, clean linens, clean utensils, or unwrapped single-service articles if you are suffering from symptoms of acute gastrointestinal illness or if you are experiencing persistent coughing, sneezing, or nasal discharges.** Restrictions can be removed by the person in charge when you no longer have symptoms of illness.

## Additional Information about Protecting Food from Contamination

### Preparing and storing food

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- Don't stack containers of uncovered food on top of each other.
- Never add sulfites to fresh fruit and vegetables or to TCS food.
- Clean can openers before and after each use, and replace or rotate blades as often as necessary.
- Clean fruit and vegetables in the food-prep sink prior to working with them. Raw, whole fruit and vegetables must be washed before they are prepared or served. Be sure to clean and sanitize the sink between uses.

### Chemical contamination

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Detergents, polishes, caustics, cleaning and drying agents, and other similar products are poisonous to humans. Keep them stored away from food.

- Follow label directions for storing and using chemicals.
- Carefully measure chemicals. Never randomly mix chemicals, especially ammonia and bleach.
- Store chemicals in original containers. Keep them in dry, locked cabinets or areas away from food and food-contact surfaces.
- Never use food containers to store chemicals. Never use chemical containers to store food.
- Dispose of empty chemical containers as directed by the manufacturer.
- Wash and dry your hands after using chemicals, especially if you are returning to food-prep duties.
- Label and store all containers or spray bottles with the name of the contents and hazards.

### Physical hazards

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Dirt, hair, broken glass, nails, staples, metal fragments (i.e., from shredded scrub pads), glass from unshielded lights, rocks, bandages, and other objects can accidentally enter food. It is important to make sure food is properly stored and prepared to avoid these hazards.

- Do not store toothpicks or inedible garnishes (such as paper umbrellas or plastic herbs) on shelves above food-storage or food-prep areas.
- Place and maintain protective shields on lights over food storage, produce displays and preparation areas.
- Remove staples, nails, and similar objects from boxes and crates when food is received.

## Additional Information about Temperature Control

### Required holding temperatures

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- Cold-holding temperatures must always be 41°F (5°C) or less except for salad bars and buffets. They can hold TCS food between 41°F (5°C) and 45°F (7°C) for no more than 12 hours in one day. Then the food must be thrown out.
- Raw eggs in the shell and unopened containers of pasteurized milk and pasteurized milk products can be stored between 41°F (5°C) and 45°F (7°C).
- Every refrigerator must have an accurate thermometer. Place the thermometer in the warmest part of the refrigerator, which is usually near the door on the top shelf.
- The temperature inside the refrigerator must remain at or below 41°F (5°C). Remember: refrigeration stops the growth of most pathogens, but cooking to correct temperatures is the only way to kill the pathogens in food.

### Temperature recording logs

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Using temperature recording logs is a way to make sure you are in control of safe food holding and cooking temperatures.

- Record cold-holding food temperatures every two hours to ensure that cold food is held at or below 41°F (5°C).
- Record hot-holding food temperatures every two hours to ensure that hot food is held at or above 135°F (57°C).
- Record the temperature of reheated TCS food to make sure it reaches an internal temperature of 165°F (74°C) or above.
- Record cooking temperatures of TCS food such as meat, poultry, fish, and eggs at different times of the day to ensure items are being cooked to the correct temperatures by all cooks.

### Boiling-point method of thermometer calibration

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- 1 Fill a deep pan with clean water, and bring it to a boil.
- 2 Put the thermometer probe into the boiling water so that the sensing area is completely submerged.
- 3 On bimetallic stemmed thermometers, hold the calibration nut on the underside of the dial head securely with a wrench or tool attached to the sheath, and rotate the dial head until the thermometer reads 212°F (100°C) or the appropriate boiling point for your elevation.

## Adequate cooking of food

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Cooking potentially hazardous food to the required temperatures is the only way to kill pathogens in food.

- You must use a probe thermometer to check internal temperatures.
- A thermocouple thermometer is best used to measure the internal temperature of hamburger patties.
- Thermometer probes should be cleaned and sanitized between uses.
- Digital thermometers can also be used.

State mandated internal cooking temperatures are:

Food	Cooking temperature
Fruit and vegetables cooked for hot-holding	135°F (57°C)
Shell eggs cooked for immediate service; fish; single pieces of meat	145°F (63°C) for 15 seconds
Ground meat; injected meat; raw eggs for later service	155°F (68°C) for 15 seconds
Poultry; ground poultry; stuffed items (fish, meat, poultry, pasta); stuffing containing fish, meat, poultry, or ratites	165°F (74°C) for 15 seconds
Roasts (beef, pork, and ham)	130°F (54°C) for 112 minutes or as specified in the California Retail Food Code

The internal temperature of the food after it is cooked and taken off of the cooking surface must reach the temperatures outlined above. It is not sufficient for only the temperature of the oven, pan, or grill to reach the requirement.

## Tips for cooling food

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Large portions of food must be divided into smaller containers to ensure rapid cooling.

Rapid cooling methods include:

- Placing the food in shallow pans
- Separating the food into smaller or thinner portions
- Using rapid cooling equipment
- Using containers that facilitate heat transfer
- Adding ice as an ingredient
- Using ice paddles
- Inserting containers in an ice bath and stirring frequently

Food containers used for cooling should be kept loosely covered or uncovered if protected from overhead contamination during the cooling process.

## **Additional information about reheating food**

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- If food is reheated in a microwave, reheat all parts of the food to an internal temperature of 165°F (74°C) and rotate or stir the food. Keep it covered, and allow it to stay covered for two minutes after reheating to seal in the heat.
- Commercially processed ready-to-eat TCS food, such as canned vegetables, must be reheated to an internal temperature of 135°F (57°C).
- Cooked and refrigerated food that is prepared for immediate service can be served at any temperature.

## **Consumer Advisories**

If a food facility serves raw or undercooked beef, pork, poultry, fish, eggs, or food containing raw or undercooked eggs (e.g., Caesar salad dressing or Hollandaise sauce), an advisory either orally (at the time of ordering) or in writing (on the menu) has to be given to the customer stating that the food is raw or undercooked.

A consumer advisory is not required:

- For sashimi, seared ahi tuna, or steak tartar
- When a customer specifically orders food raw or undercooked (e.g., rare steak or soft boiled eggs)

Customers must also be notified orally or in writing that they must use clean dishes and utensils when returning to salad bars or buffets for second helpings.

## **Approved Food Sources**

Food served or sold at a food facility must be from an approved source. "Approved source" means that the supplier is acceptable to the Department of Environmental Health and is permitted, licensed, or registered with a food regulatory agency (e.g., USDA, FDA, or state of California).

- Each food facility operator must be able to show that the processor or supplier they are using is "approved". Ask to see a copy of your supplier's health permit or their last inspection report.
- Food cannot be prepared or stored in a private home unless permitted as a Cottage Food Operation in the County of San Diego.
- Raw or processed meat and poultry must have a USDA stamp of approval.
- Cheese must be purchased from a licensed distributor. The label must have the manufacturer name, address, processing plant number, ingredients, and expiration date.
- Do not buy food from a door-to-door vendor because their sources may be unsafe.
- Keep a list of where food products are purchased and maintain copies of invoices and receipts for tracking all purchases.
- Packaged food must be labeled.

## Receiving Shellfish

Shellfish (e.g., oysters, mussels, clams) must be from safe sources and handled safely.

- Tags for shellfish must be kept with the container they are stored in until the container is empty. The tags also have to be kept on file at the facility for at least 90 days.
- From April 1 to October 31: Raw Gulf Coast oysters can't be served or sold without a copy of a certificate that says they have been properly treated.
- From November 1 to March 31: If raw Gulf Coast oysters are served or sold, warning signs must be posted for untreated Gulf Coast oysters.

## Additional Cleaning and Sanitizing Guidelines

- Take apart, clean, and sanitize meat grinders at least every four hours and between processing different types of food. Clean daily if the meat grinder is in a refrigerated room.
- Take apart deli slicers to clean and sanitize every four hours or between processing raw food (such as raw beef or poultry) and ready-to-eat food (such as deli meats and cheese).
- Clean beneath, behind, above, and around all equipment and customer tables.
- Thoroughly clean restrooms daily. Clean floors, walls, sinks and faucet handles, doors and door-knobs, mirrors, toilets, and urinals.
- Be sure that single-use towels, liquid or powdered soap, and toilet paper are kept in their wall-mounted dispensers, at all times, and that handwashing signs are prominently posted.
- Clean trash containers, mops, and wiping cloths on a regular basis.
- Post a daily cleaning schedule and follow it.
- Run dishwashing racks through a full machine cycle. Regularly check the sanitizer level of the machine, using the correct chemical test strips.
- Make sure that the detergent, rinse agent, and sanitizer dispensers of dishwashers are operating correctly.

## Guidelines for the effective use of sanitizers

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Dishes and utensils can be sanitized by contact with any of the following:

- 171°F (77°C) water for 30 seconds
- Warm-water solution of 100 parts per million (ppm) chlorine for 30 seconds
- Warm-water solution of 200 ppm quaternary ammonium for 60 seconds
- Warm-water solution of 25 ppm iodine for 60 seconds

Read instructions on the labels of sanitizer containers to determine the correct water temperature and amount of sanitizer to be added to a full sink of water.



## **Guidelines for using cloths**

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- **Dry wiping cloths:** Clean linens must be free from food debris and visible soil. They are to be used for a single purpose (e.g., wiping tables, seats, or tableware) or used once and laundered.
- **Wet wiping cloths:** Clean linens must be free of food debris and visible soil. They can be used repeatedly for a single purpose if kept in sanitizing solutions.
- Wiping cloths used for raw animal products must be kept separate from cloths used for other purposes.
- Whenever a sanitizing solution becomes cloudy or heavily permeated with food particles and juices, or no longer meets the required sanitizing concentration levels, it must be replaced.

## **Additional guidelines for handling garbage**

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- Place garbage in strong plastic bags, and place them in an outside container with a tight-fitting lid.
- Refuse containers must be kept clean, not leak, and be tightly covered to keep out pests.
- Garbage should be picked up as often as necessary to prevent the bin from overflowing, but not less than once per week.

## **Pest Control Guidelines**

Follow these guidelines to prevent pest infestations in the operation:

- Keep lids sealed tightly on food containers.
- Maintain a garbage pickup schedule that meets your waste demands. You do not want an overflow of trash.
- Repair any cracks or holes in walls, floors, or ceilings.
- Repair broken screens and any loose wallboard or paneling.
- Seal holes around drains and pipes.
- Use floor sink screens to keep drains clear and prevent entry by vermin through the sewer and pipes.
- Make sure doors, windows, and screens shut tightly.
- Do not use paper or cardboard to line shelves.

Flies are attracted to uncovered trash cans, where they breed and multiply. A fly can carry as many as six million pathogens on it. Flies vomit on food to make it soft, and then they suck it all up.

## **Chemicals related to pest control**

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Chemicals used to kill pests can make people sick. Applying chemicals near dishes and food is dangerous. These chemicals must state on the label that they are approved for use in a food-prep area of a commercial kitchen, and directions on the label must be closely followed. Chemicals must also be stored in their original containers in a cabinet away from food and the food-prep area.

If your facility has an infestation of pests, please contact a pest control professional to help eliminate the problem.

## Signs and Inspection Reports

Required signs must be posted in the operation as follows:

- Grade cards for food facilities that prepare food must be posted during all hours of operation.
- Handwashing signs must be posted at all handwashing sinks in bathrooms and food-prep areas.
- Food facilities constructed after January 1, 2004 that prepare food for consumption on-site must provide bathrooms for customers. Facilities constructed before that time that don't provide bathrooms for customers have to post a sign stating that they are not available.

Additionally, if requested by an inspector or customer, a copy of the last inspection report must be readily available for review.