

CHAPTER 6

CLEANING & SANITIZING

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

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

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

Sanitizing Equipment and Food Contact Surfaces

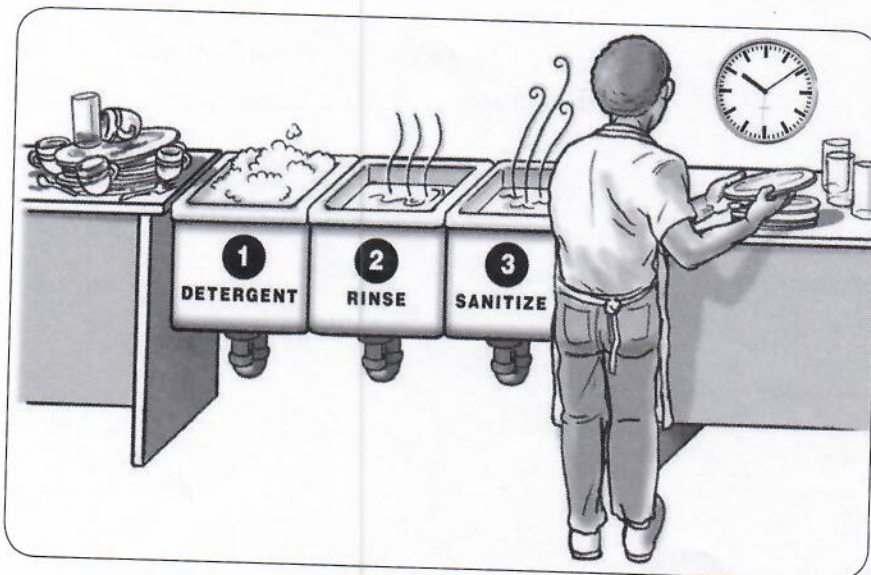
Food contact surfaces and equipment such as prep tables, cutting boards, slicing machines, utensils, and refrigeration door and drawer handles must be cleaned and sanitized often, typically several times each day. Equipment must not only be cleaned and sanitized, but must be maintained and in good repair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

If an individual becomes ill on premise and discharges vomit or diarrhea, follow your company's policies for controlling the spread of these contaminants. Employees cleaning up the mess must take personal precautions with gloves, and masks when necessary, to also protect themselves from these contaminants.



CLEANING AND SANITIZING TECHNIQUES

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



Manual / Three Compartment Sink

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

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

* NEVER RINSE ITEMS AFTER SANITIZING

Warewashing Machines

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

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



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

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

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

Cleaning and Sanitizing Fixed or Clean-in-Place Equipment

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

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

Sanitizer Buckets and Wiping Cloths

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

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

Manual & Mechanical Sanitization Levels

MINIMUM CONCENTRATION (PARTS PER MILLION - PPM)	pH 10.0/MINIMUM TEMPERATURE	pH 8.0/MINIMUM TEMPERATURE	CONTACT TIME (SECONDS)
Chlorine: 50 - 99 ppm	100°F (38°C)	75°F (24°C)	7
Iodine: 12.5 to 25 ppm	pH ≤ 5.0 or per label and H ₂ O is at least 68°F (20°C)		30
Quaternary Ammonium: per label	Water hardness ≤ 500 ppm or per label and H ₂ O is at least 75°F (24°C)		30
Hot water sanitizing in a three compartment sink requires a water temperature of 171°F and items immersed for at least 30 seconds.			

General Cleaning

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

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

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

Cleaning Equipment and Chemical Storage

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

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

BEST EMPLOYEE PRACTICE

Cleaning and Sanitizing

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

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

CHAPTER SIX REVIEW QUIZ

True or False

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

Complete the Sentence

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

Multiple Choice

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