10 Cleaning and Sanitizing

ServSafe
National Restaurant Association

Objectives:

By the end of this chapter, you should be able to identify the following:

- Different ways of sanitizing and the requirements for each
- How and when to clean and sanitize surfaces
- How to wash items in a dishwasher or a three-compartment sink and then store them
- How to use and store cleaning tools and supplies
- How to develop an effective cleaning program

Cleaning and Sanitizing

Cleaning:

- Removes food and other dirt from a surface

Sanitizing:

- Reduces pathogens on a surface to safe levels

Cleaners

Cleaners must be:

- Stable
- Noncorrosive
- Safe to use
- Available

Types of cleaners include:

- Detergents
- Degreasers
- Delimers
- Abrasive cleaners

Cleaners

To use cleaners correctly:

- Follow manufacturers' instructions.
- Only use them for their intended purpose.
  - Do NOT use one type of cleaner in place of another unless the intended use is the same.

Sanitizers

Sanitizing methods:

- Heat sanitizing:
  - Immerse the item in water that is 171˚F (77˚C) for at least 30 seconds.
  - Use a high-temperature dishwasher.
- Chemical sanitizing:
  - Soak items in a sanitizing solution.
  - Rinse, swab, or spray items with a sanitizing solution.

Sanitizers

Chemical sanitizers:

- Commonly used chemical sanitizers include:
  - Chlorine.
  - Iodine.
  - Quats (quaternary ammonium compounds).
- Sanitizers must be available to employees at all times
- Detergent-sanitizer blends can be used in some cases:
  - Use it once to clean.
  - Use it a second time to sanitize.

Sanitizer Effectiveness

Concentration:

- Sanitizers should be mixed with water to the correct concentration:
  - Not enough sanitizer may make the solution weak and useless.
  - Too much sanitizer may make the solution too strong, unsafe, and corrode metal.

Sanitizer Effectiveness

Concentration:

- Check concentration with a test kit:
  - Make sure the kit is made for the sanitizer being used.
  - Make sure kits are always available and employees can easily access them.
  - Check the concentration often.
- Change the solution when:
  - It is dirty.
  - The concentration is too low.

Sanitizer Effectiveness

Temperature:

- Follow manufacturer's recommendations for the correct temperature.

Contact time:

- The sanitizer must make contact with the item for a specific time.
- Minimum times differ for each sanitizer.

Sanitizer Effectiveness

Water hardness and pH:

- Find out your operation's water hardness and pH from your municipality.
- Work with your supplier to identify the correct amount of sanitizer to use for your water.

Guidelines for the Effective Use of Sanitizers

	Chlorine	
Water temperature	≥100˚F (38˚C)	≥75˚F (24˚C)
Water pH	≤10	≤8
Water hardness	As per manufacturer's recommendations	
Sanitizer concentration range	50–99 ppm	50–99 ppm
Sanitizer contact time	≥7 sec	≥7 sec

Guidelines for the Effective Use of Sanitizers

	Iodine	Quats
Water temperature	68˚F (20˚C)	75˚F (24˚C)
Water pH	≤5 or as per manufacturer's recommendations	As per manufacturer's recommendations
Water hardness	As per manufacturer's recommendations	≤500 ppm or as per manufacturer's recommendations
Sanitizer concentration range	12.5–25 ppm	As per manufacturer's recommendations
Sanitizer contact time	≥30 sec	≥30 sec

How to Clean and Sanitize

How to clean and sanitize:

1. Scrape or remove food bits from the surface.

2. Wash the surface.

3. Rinse the surface.

4. Sanitize the surface.

5. Allow the surface to air-dry.

When to Clean and Sanitize

Food-contact surfaces must be cleaned and sanitized:

- After they are used
- Before working with a different type of food
- After handling different raw TCS fruits and vegetables
- Any time a task was interrupted and the items may have been contaminated
- After four hours if the items are in constant use

Cleaning and Sanitizing Stationary Equipment

Follow the manufacturer's directions.

General steps:

- Unplug the equipment.
- Take off the removable parts.
  - Wash, rinse, and sanitize them by hand or run the parts through a dishwasher if allowed.
- Scrape or remove food from the equipment surfaces.

Cleaning and Sanitizing Stationary Equipment

General steps (continued):

- Wash the equipment surfaces.
- Rinse the equipment surfaces with clean water.
- Sanitize the equipment surfaces.
  - Make sure the sanitizer comes in contact with each surface.
- Allow all surfaces to air-dry.
- Put the unit back together.

Cleaning and Sanitizing Clean-in-Place Equipment

Equipment that holds and dispenses TCS food:

- Must be cleaned and sanitized every day unless otherwise indicated by the manufacturer

Machine Dishwashing

High-temperature machines:

- Final sanitizing rinse must be at least 180˚F (82˚C).
  - 165˚F (74˚C) for stationary rack, single-temperature machines

Chemical-sanitizing machines:

- Clean and sanitize at much lower temperatures.
- Follow the temperature guidelines provided by the manufacturer.

Dishwasher Operation

Guidelines:

- Clean the machine as often as needed.
- Scrape items before washing.
- Use the correct dish racks.
- NEVER overload dish racks.
- Air-dry all items.

Dishwasher Operation

Guidelines:

- Check the machine's water temperature, water pressure, and sanitizer levels.
  - Take corrective action if necessary.
- For high-temperature dishwashing machines, provide tools to check the temperature of the items being sanitized, such as:
  - Maximum registering thermometers.
  - Temperature sensitive tape.

Manual Dishwashing

Setting up a three-compartment sink:

- Clean and sanitize each sink and drain board.
- Fill the sinks:
  - First sink—detergent and water at least 110˚F (43˚C)
  - Second sink—clean water
  - Third sink—water and sanitizer

Provide a clock with a second hand.

Three-Compartment Sinks

Steps for cleaning and sanitizing:

1. Scrape items.

2. Wash items in the first sink.

3. Rinse items in the second sink.

4. Sanitize items in the third sink.

5. Air-dry items on a clean and sanitized surface.

Storing Tableware and Equipment

When storing clean and sanitized tableware and equipment:

- Store them at least six inches (15 cm) off the floor.
- Clean and sanitize drawers and shelves before items are stored.
- Store glasses and cups upside down on a clean and sanitized shelf or rack.

Storing Tableware and Equipment

When storing clean and sanitized tableware and equipment:

- Store flatware and utensils with handles up.
- Clean and sanitize trays and carts used to carry clean tableware and utensils.
- Cover the food-contact surfaces of stationary equipment until ready for use.

Cleaning and Sanitizing in the Operation

Wiping cloths:

- Used to wipe up food spills and wipe down equipment.
- Two types:
  - Wet wiping cloths
  - Dry wiping cloths
- NEVER use cloths that are meant for wiping food spills for any other purpose.

Cleaning and Sanitizing in the Operation

Wet wiping cloths:

- For wiping counters and other surfaces.
- Store in sanitizer solution between uses.
  - Change the solution when necessary.
- Keep cloths that contact raw meat, fish, and poultry separate from other cleaning cloths.

Cleaning and Sanitizing in the Operation

Dry wiping cloths:

- Used to wipe food spills from tableware
- Must be kept dry while in use
- Must NOT
  - Contain food debris
  - Be visibly dirty

Cleaning and Sanitizing in the Operation

Cleaning the nonfood-contact surfaces on the premises:

- Nonfood-contact surfaces include:
  - Floors, ceilings, walls, equipment exteriors, etc.
- Regular cleaning prevents:
  - Buildup of dust, dirt, food residue and other debris
  - Growth of pathogens
  - Pests

Cleaning and Sanitizing in the Operation

Cleaning up after people who get sick:

- Diarrhea and vomit must be cleaned up correctly.
  - They can carry Norovirus, which is highly contagious.
- Correct cleanup can prevent:
  - Contamination of food.
  - Spreading illness to others.
- Operations must have written procedures for cleaning up vomit and diarrhea:
  - Procedures must be specific.
  - Employees must be trained on these procedures.

Cleaning and Sanitizing in the Operation

Storing cleaning tools and chemicals:

- Place in a separate area away from food and prep areas.

The storage area should have:

- Good lighting so chemicals can be easily seen
- Hooks for hanging cleaning tools
- Utility sink for filling buckets and washing cleaning tools
- Floor drain for dumping dirty water

Cleaning and Sanitizing in the Operation

NEVER:

- Clean tools in sinks used for:
  - Handwashing
  - Food prep
  - Dishwashing
- Dump mop water or other liquid waste into toilets or urinals.

Cleaning and Sanitizing in the Operation

Using foodservice chemicals:

- Only use chemicals approved for foodservice operations.
  - NEVER keep chemicals that are not used in the operation.
- Cover or remove items that could become contaminated before using chemicals.
- After using chemicals, clean and sanitize equipment and utensils.
- Follow the law and manufacturers' directions.

Cleaning and Sanitizing in the Operation

Storing foodservice chemicals:

- Store chemicals in their original containers.
- Keep chemicals separate from food, equipment, utensils, and linens by either:
  - Spacing chemicals away from other items
  - Partitioning chemicals from other items
- Always store chemicals below food, equipment, utensils, and linens.

Cleaning and Sanitizing in the Operation

Labeling foodservice chemicals:

- Manufacturer's label must:
  - Include directions for use.
  - Be clear enough to read.
- If chemicals are transferred to a new working container:
  - The working container must be labeled with the common name.

Developing a Cleaning Program

To develop an effective cleaning program:

- Create a master cleaning schedule.
- Train your staff to follow it.
- Monitor the program to make sure it works.

Developing a Cleaning Program

To create a master cleaning schedule, identify:

- What should be cleaned
- Who should clean it
- When it should be cleaned
- How it should be cleaned

Developing a Cleaning Program

Train your staff and monitor the cleaning program:

- Supervise daily cleaning routines.
- Check cleaning tasks against the master schedule every day.
- Change the master schedule as needed.
- Ask staff for input on the program.