**Chapter 10**

Cleaners removes food and dirt from a surface

* Includes detergents, degreasers, de-limers, and abrasive cleaners

Sanitizers reduce pathogens on the surface to a safe level

* Can sanitize by soaking in hot water. Water must be at least 171 F and soaked for at least 30 seconds. You can also run them through a high heat dishwasher.
* Tableware, utensils, and equipment can be sanitized by soaking them in a chemical solution. Or you can rinse or spray them with a sanitizing solution
* Common types of chemical sanitizers= chlorine, iodine, and quaternary ammonium compounds
* Several factors influence the effectiveness of sanitizer
	+ Concentration (measured in parts per million or ppm)
	+ Temperature
	+ Contact time
	+ Water hardness (amount of minerals in water)
	+ PH

General guidelines for effective use of chlorine and iodine

* Chlorine
	+ Soak at least 7 seconds
	+ If PH less than 10 water temp must be greater than 100 F
	+ If PH less than 8 water temp must be greater than 75 F
* Iodine
	+ Soak at least 30 seconds
	+ Temp at 68 F

How to clean and sanitize a surface

1. Scrape or remove food bits from the surface
2. Wash the surface with a cleaning solution
3. Rinse the surface
4. Sanitize the surface
5. Allow the surface to air dry

When to clean and sanitize food contact surfaces

* After they are used
* Before working with a different type of food
* After handling different raw TCS fruits and veggies
* Anytime there is an interruption during a task
* After 4 hours if items are in constant use

Cleaning and sanitizing stationary equipment

* Unplug the equipment
* Take the removeable parts off the equipment. Wash, rinse, and sanitize them by hand or run them through a dishwasher.
* Scrape food from the equipment surface. Use a cleaning solution to wash it.
* Rinse with clean water
* Sanitize the equipment surface
* Allow to air dry and put unit back together

Cleaning in place equipment

* Some pieces of equipment are designed to have cleaning and sanitizing equipment pumped through the machine
* Must be cleaned and sanitized everyday unless otherwise indicated by the manufacturer

Dishwashing

* Machines sanitize by either hot water or a chemical sanitizing solution
	+ The temp of the final sanitizing rinse must be at least 180 F
	+ For stationary rack single temp machines, it must be at least 165 F
* Chemical sanitizing machines can clean and sanitize items at much lower temps
* Manual dishwashing with a 3-compartment sink
	+ Preparing the sink
		- Clean and sanitize each sink and drainboard
		- Fill the first sink with detergent and water, Waer temp must be at least 110 F
		- Fill the second sink with clean water. This is not necessary if items will be spray rinsed instead of dipped
		- Fill third sink with water and sanitizer to the correct concentration
		- Provide a clock with a second hand to let food handlers know how long the items have been soaking in sanitizer

Storing tableware and equipment

* Store tableware and utensils at least 6 inches off the floor
* Clean and sanitize drawers and shelves before storing clean items
* Store glasses and cups upside down on a clean and sanitized rack
* Store flatware and utensils with handles up
* Clean and sanitize trays and carts

Max registering thermometer required in a high temp dishwasher

Acceptable contact time when sanitizing food-contact surfaces= soak item in chlorine solution for 7 seconds

If food contact surfaces are on constant use, must be cleaned and sanitized every 4 hours

To make sure sanitizing solution has been made correctly, test it with a sanitizer kit

Before washing dishes in a 3-compartment sink, clean and sanitize sinks and drain boards

Emergency shower system is most important in chemical storage area

Correct order of cleaning and sanitizing a prep table: remove food from surface wash, rinse, sanitize, and air dry

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A master cleaning schedule should include: what should be cleaned, when, by whom, and how