

Temperatures

Real Life Story

During a routine inspection, a sanitarian discovered a walk-in cooler with an ambient temperature of 56 degrees Fahrenheit at 9:00 am. Upon further investigation, the manager revealed “the cleaning crew from the night before had turned off the cooler during nightly cleaning, and simply forgot to turn it back on”. Product temperatures were consistently 55 degrees Fahrenheit or higher in all areas of the cooler. The manager contended, “it’s okay though, I’ve turned the cooler back on now. You can see that the temperature is starting to drop”. After educating the manager on the potential dangers of food left in the danger zone, all PHF/TCS food had to be discarded. The restaurant was faced with the decision either to run a limited lunch menu, or to close down for the day. Despite the fact that much of the food in the cooler was discarded, the restaurant opened with a limited menu ensuring the safety of their food. It turned out to be a very wise decision as they later learned that their first lunch guests of the day were local health department officials!

📌 Scary Facts:

- Bacteria multiply every 10-20 minutes in the temperature danger zone (The temperature range between 41°F and 135°F). If you start with one bacteria after only 2 hours you will have 64, and after 4 hours there will be hundred of thousands!

A. Holding Temperatures

1. Hot Foods – 135°F and Above
2. Cold Foods – 41°F and Below

B. Cooling foods should be done quickly and never left at room temperature.

C. Reheating: All foods should be reheated to 165°F within two (2) hours prior to placing in hot holding units.

D. Why? Food held at improper temperatures is a leading risk factor causing foodborne illness, according to the CDC. When potentially hazardous foods are between 41°F and 135°F, bacteria multiple very quickly. As the number of pathogens increases so does the potential of a foodborne illness.

Food Handling

Real Life Story

Contaminated cannoli filling and cassata cakes from a popular local bakery poisoned nearly 200 people in early 2002. State investigators blamed poor sanitation practices, lack of employee hand washing, and cross contamination of Salmonella-contaminated eggs or dairy products in the kitchen. Of 196 people who were sickened, 24 were hospitalized with extreme diarrhea, stomach pains, vomiting and other painful symptoms linked to E. coli. Investigators could not determine the precise origin of the contamination, but reported that the outbreak was worsened by poor kitchen practices.

📌 Scary Facts:

- Viruses spread easily and can live on surfaces for up to 48 hours or more
- Just 1 case of foodborne illness can lead to monetary penalties, lost wages, and lost sales costing into the millions of dollars

A. Ready-to-Eat Foods

1. What are they?

Any food that doesn't require additional cooking, heating or further preparation is ready-to-eat.

2. Proper Handling of Ready-to-Eat Foods

Do not handle ready-to-eat foods with bare hands. Always use gloves, utensils or deli papers.

B. Proper Service of Foods

1. **Don't touch the rims of the glasses** and other food contact or eating surfaces.

2. **Only touch the rims of plates** to avoid touching eating surfaces.

C. Table Setting

1. Handling of Clean vs. Soiled Tableware:

Remember to properly wash your hands before handling clean tableware.

2. **It is not acceptable to pre-set your tables** with food or unprotected dishware. When removing extra table settings always remember these must be washed rinsed and sanitized again prior to re-use.

D. Why is proper food handling important?

To protect food and food contact surfaces from becoming contaminated.

Teaching tips:

- Have new employees follow the trainer around to observe and imitate them
- Then have the trainer follow the new employee to make sure they are doing it right

Teaching Aids: You can find excellent and easy teaching aids by visiting michigan.gov/mda.

Food Allergens

Real Life Story

Peter is a 6-year old boy who first found out that he had allergy problems when he experienced nausea and vomiting after eating “salads”. Peter later found out that he was also allergic to fish when he had a severe reaction from eating Pike. Several months later, and while continuing to avoid “salads and fish”, Peter ate some tomatoes and had immediate diarrhea and stomach cramps. After spending a day in the hospital following a life-threatening allergic reaction, the family determined it was time to see an allergy specialist.

Through skin testing, Peter was found to be allergic to grass pollen allergens. This helped to explain why he reacted to lettuce and tomatoes since both of these foods contain grass allergy proteins. Peter was also found to be allergic to food allergens within fish.

Peter is now undergoing allergen immunotherapy, for his pollen and mold allergens, which produces a state of tolerance, wherein a patient may now tolerate much more exposure to the offending allergens for which he/she has been treated. Peter will be managed by avoidance of offending foods, and adrenaline injections if needed for severe allergic reactions.

Scary Facts:

- According to The Food Allergy & Anaphylaxis Network: Approximately 12 million Americans suffer from food allergies

1. Know what to do if a guest reports an allergy or asks about allergens in the food.

Tell the customer that you are not sure but that you will get that information for them right away. Report the inquiry to your manager.

2. Why do you need to know about food allergens?

They could cause illness or even death to your customer.

Teaching tips:

- It is recommended that you reinforce basic training with all employees about every 6 months

Teaching Aids: You can find excellent and easy to access teaching aids by visiting michigan.gov/mda

Cleaning and Sanitizing

Real Life Story

A small chain of local pizza establishments decided to change the way they prepared the crust for their pizzas. Previously, they used a brush to apply melted butter to the pizza dough before adding toppings. However, the brushes were very difficult to clean and sometimes a melted nylon bristle was found on the edge of the baked pizza crust. Wanting to find a better and more sanitary way to flavor the crust, the manager consulted with the local health inspector for ideas of what they should do. The inspector suggested using flavored spray-on cooking oil instead of the butter/brush method. After looking at the cost of the popular butter flavored cooking sprays, the manager decided to develop a flavored oil recipe and use a trigger-type spray bottle instead. Because the manager was certified in food safety, he knew to avoid using potentially hazardous foods that would require refrigeration (such as fresh garlic in oil) when developing the recipe. The new flavored crusts turned out to be a big success, however, over the next week, 23 people reported becoming violently ill after eating pizza from one of the chain's establishments. The customers reporting illnesses all had similar symptoms. Most experienced nausea and violent vomiting within 10-20 minutes after eating the pizza. Some customers reported that the crust had a "funny" after-taste. One customer commented that he thought the crust was too spicy and that he experienced a "burning" sensation on his lips and tongue. No illnesses were reported from any of the other pizza establishments.

Upon inspection of the pizza establishment, the health inspector found nothing out of the ordinary about the contents of the flavored oil mixture but noted that the spray bottle used to apply the oil was unlabeled. After further inspection of the facility, the inspector found an identical unmarked spray bottle in the chemical storage area with a similarly colored yellow liquid. The other liquid had a lemon scent identical to that of a degreaser used in the facility.

Source:

Jankowski, Nicholas S. *Professional Food Manager Certification Training*. 3rd ed. Ann Arbor, MI: NSF International; 2004; 36-37.

Scary Facts:

- According to the National Capital Poison Center, over 35,000 calls were received regarding human poison exposures in 2006

Cleaning is the process of removing visible soil. Sanitizing is the process of reducing pathogens to a safe level. Utensils, tableware and parts of equipment that come in contact with food must be cleaned and sanitized after every use. Equipment and utensils that are used continuously, such as serving spoons on a buffet line, must be cleaned and sanitized every 4 hours. Use cleaning agents according to the manufacturer's instructions found on the label.

There are two ways to sanitize food contact surfaces, by heat or by chemical. Some dish machines use hot water while others machines use chemicals in the final rinse to sanitize. Most 3 compartment sinks use chemicals in the 3rd sink.

- A. **Clean as you go** to keep surfaces free from an accumulation of food debris.
- B. **Storage of Chemicals:** Always store chemicals in a separate area away from food, food contacts surfaces, and utensils.
- C. **Labeling of Chemicals:** Make sure all spray bottles and other containers are properly labeled as to the contents in the bottle.

 **Teaching tips:**

- You are required by Law to have a Material Safety Data Sheets book (MSDS Sheets) accessible to the employees at all times. These sheets contain important information on first aide and combustibility of each chemical used in the facility. These sheets are available from point of sale or check containers for phone numbers and website information.
- Keep a training record of all employees and keep it up to date to make sure all employees receive proper training.
- Clean all surfaces regularly including items handled often, such as door knobs and beepers. To help limit pathogens (Micro-organisms that cause disease) from being transferred tom people.

Teaching Aids: Next Page

Cleaning and Sanitizing:

Approved Sanitizers:

Sanitizer	Chlorine based	Iodine	Ammonium based
Concentration	50 ppm	12.5 – 25 ppm	200 ppm
Contact time	7 sec	30 sec	30 sec
Water temp	75-100°F	Min 75°F	75°F

Hot Water Sanitizing:

Manual hot water sanitizing: 171°F, contact time min 30 sec

High temp dishwasher: manifold temp 180°F, dish temp 160°F

Testing:

For Chemical Sanitizing: Chemical test strips for testing sanitizer

For high water temp sanitizing:

High temp registering, waterproof thermometer

Temperature sensitive test strips