- Clean up spills immediately, including those around garbage containers.
- When possible, use dehumidifiers to keep humidity at 50 percent or lower. Low humidity helps prevent roach eggs from hatching.
- Keep food and supplies away from walls and at least six inches off the floor.
- Store all food and supplies right away.
- Use FIFO for products in storage, so pests don’t have time to settle into them and breed.

Even after an operation has made every effort, some pests may still get in. If this happens, work with a **pest control operator**, or **PCO**, to get rid of them. PCOs have access to the most current and safe methods for eliminating pests. They are trained to determine the best methods for eliminating specific pests, are knowledgeable about local regulations, and are experts at applying, storing, and throwing out pesticides.

See Appendix C for additional information on food safety and pest control.

**Summary**

In this section, you learned the following:
- Cleaning removes food and other dirt from a surface. Sanitizing reduces pathogens on a surface to safe levels.
- All surfaces must be cleaned and rinsed; food-contact surfaces must be cleaned and sanitized. To clean and sanitize a surface, clean, rinse, and sanitize it, and then let the surface air-dry.
- Cleaners can be divided into the following groups: detergents, degreasers, delimbers, and abrasive cleaners.
- Contact time, temperature, and concentration affect the effectiveness of sanitizers.
- A master cleaning schedule should identify what should be cleaned, who should clean it, when it should be cleaned, and how it should be cleaned.
- NSF and Underwriters Laboratories (UL) certify that equipment meets sanitation standards.
- To prevent pests from getting into an operation, an operation needs an integrated pest management program (IPM).
Section 2.5 Review Questions

1. Explain the difference between cleaning and sanitizing.
2. How can you prevent pests from entering an operation?
3. What is a master cleaning schedule, and why is it important in an operation?
4. Why would Melisa Bouchard stress the importance of a clean and sanitary work environment?
5. Linda and Chef Jean have not noticed any signs of pests, but Linda had experience with a roach infestation in a previous job. She wants to prevent anything like that from happening at the Uptown Grille. What steps should she take?
6. How would you determine the best chemical sanitizer to use for your restaurant? What factors would you take into consideration?
7. Explain the importance of contact time when sanitizing kitchen equipment.
1. Study Skills/Group Activity: Master Cleaning Schedule
Pretend you own a small restaurant. Work in groups of two or three other students to develop a master cleaning schedule for the whole restaurant (kitchen, dining room, and restrooms).

2. Activity: No Pests Allowed!
You manage the foodservice operations for a large nursing home. How do you prevent pests from entering your facility? Develop an action plan.

3. Critical Thinking: How Clean Is It?
Observe cleaning practices at your school's cafeteria. Do they interfere with the students and faculty who are eating? Do they eliminate hazards?
Case Study Follow-Up | It's All Wrong

At the beginning of the chapter, Uptown Grille had a very busy day with Linda and Chef Jean being away for most of the day and one of their foodhandlers feeling sick.

1. What errors did Linda, Chef Jean, Brian, and Michael make today with regard to food safety?
2. How would an outbreak of a foodborne illness affect Uptown Grille? What would be the costs?
3. Based on the events at Uptown Grille today, how can Linda ensure that the restaurant avoids food contamination in the future?
4. How should Chef Jean handle spoilage or contamination of food?
Apply Your Learning

The Danger Zone

In this chapter you have learned about the temperature danger zone for food. You know the boiling temperature at sea level. You know the freezing temperature at sea level. What is the temperature range in which you can safely hold hot foods without boiling them? What is the range for safely holding cold food without freezing?

Public Record

The reports made by public health inspectors are public records in many states. Select a local restaurant and obtain its three most recent inspection reports from your local health department. How has the restaurant improved or declined over time? Give a three-minute oral report on your findings.

The Transformation of Meat

Using a calibrated thermometer, cook three pieces of beef to three different internal temperatures: 145°F, 155°F, and 165°F. Allow the meat to rest for five minutes after removing it from the heat, and then cut each piece open in the center. How does the appearance of the meat change depending on the cooking temperature of each piece? How do the flavor and texture differ from piece to piece? Write two paragraphs summarizing your findings.

Critical Thinking

Beware of Danger

There are living things besides microbes that can harm the food supply. What living things can you think of that could be a problem for a restaurant or foodservice operation? For example, perhaps your establishment is in an old building with a pipe stump from an old system still in an exterior wall. This pipe is open on both ends, from the inside to the outside world. Why could this be a problem? What should be done about it? Select one potential problem and one possible solution, and create a poster about it for the class.
Exam Prep Questions

1. What is the temperature range for the temperature danger zone?
   A. 0°F to 32°F
   B. 41°F to 135°F
   C. 50°F to 140°F
   D. 70°F to 125°F

2. A critical control point (CCP) is a point
   A. in a recipe when ingredients are added.
   B. when chemically contaminated food is identified.
   C. where measures can be applied to prevent hazards.
   D. in the cooking process where food is tasted.

3. The temperature of a roast is checked to see if it has met its critical limit of 145°F for 4 minutes. This is an example of which HACCP principle?
   A. Verification
   B. Monitoring
   C. Record keeping
   D. Hazard analysis

4. First in, first out (FIFO) is a method of
   A. pest control.
   B. stock rotation.
   C. record keeping.
   D. temperature control.

5. How should food be labeled if stored out of its original container?
   A. Contents and date
   B. Foodhandler's name and title
   C. Foodhandler's name and the date
   D. Date and temperature at the time of storage

6. If food-contact surfaces are in constant use, they must be cleaned and sanitized every _____ hours.
   A. 2
   B. 4
   C. 5
   D. 6

7. To prevent food allergens from being transferred to food,
   A. avoid pewter tableware and copper cookware.
   B. store cold food at 41°F or lower.
   C. buy food from an approved, reputable supplier.
   D. clean and sanitize utensils before use.

8. Foodhandlers should keep their fingernails
   A. short and unpolished.
   B. long and unpolished.
   C. long and painted with nail polish.
   D. short and painted with nail polish.