



3

The Safe Food Handler

Hepatitis A Scare

Hepatitis A vaccinations were offered to thousands of guests who had visited a local casual-dining restaurant in the Gulf Coast region of the United States. The vaccinations were made available by the local regulatory authority after a food handler at the restaurant tested positive for Hepatitis A, exposing the guests to the virus. The identified food handler was responsible for preparing and setting up items on the restaurant's salad bar.

The food handler was excluded from work until approved to return by a physician and the regulatory authority. The local regulatory authority also worked with the restaurant to ensure it had all of the correct processes in place to protect guests and the team.

You Can Prevent This

The incident in the story above could have been avoided if the illness had been reported to the manager once the food handler started experiencing symptoms. You can prevent a situation like this by requiring staff to report any health problems before they come to work. Reporting illness is just one part of a good personal hygiene program. This chapter will explore this and other requirements for a good personal hygiene program.

Study Questions

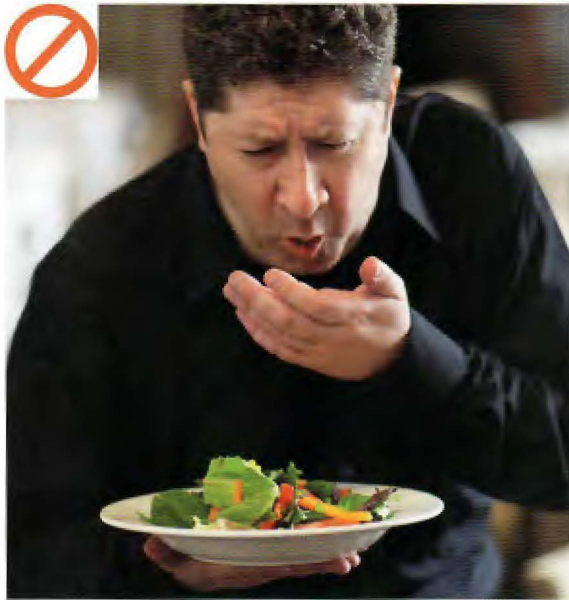
- How can food handlers avoid behaviors that can contaminate food?
- How should staff wash and care for their hands?
- What is the correct way to dress for work and handle work clothes?
- Where can staff eat, drink, smoke, and chew gum or tobacco to minimize contamination?
- What is the best way to prevent staff who may be carrying pathogens from working with or around food, or from working in the operation?

How Food Handlers Can Contaminate Food

At every step in the flow of food, food handlers can contaminate food. They might not even realize it when they do it. Something as simple as touching the face while prepping a salad could make a customer sick. Even a food handler who appears to be healthy may spread foodborne pathogens. As a manager, you need to know the many ways that food handlers can contaminate food.

Situations That Can Lead to Contaminating Food

Food handlers can contaminate food in any of the following situations:



- When they have a foodborne illness.
- When they have wounds or boils that contain a pathogen.
- When sneezing or coughing, as the food handler is doing in the photo at left.
- When they have contact with a person who is ill.
- When they use the restroom and do not wash their hands. These food handlers may contaminate food and surfaces with feces from their fingers. Once someone eats food contaminated this way, a foodborne illness may result. This is called the fecal-oral route of contamination.
- When they have symptoms such as diarrhea, vomiting, or jaundice—a yellowing of the eyes or skin.

With some illnesses, a person may infect other people before showing any symptoms. For example, a person could spread Hepatitis A for weeks before having any symptoms. With other illnesses, a person may infect other people for days or even months after symptoms are gone. Norovirus can be spread for days after symptoms have ended.

Some people carry pathogens and infect others without ever getting sick themselves. These people are called **carriers**.

Actions That Can Contaminate Food

To avoid causing a foodborne illness, pay close attention to what you do with your hands. Some common actions to avoid are:

- A** Scratching the scalp
- B** Running fingers through the hair
- C** Wiping or touching the nose
- D** Rubbing an ear
- E** Touching a pimple or an infected wound/boil
- F** Wearing and touching a dirty uniform
- G** Coughing or sneezing into the hand
- H** Spitting in the operation



Managing a Personal Hygiene Program

To keep food handlers from contaminating food, your operation needs a good personal hygiene program. A good personal hygiene program also helps everyone feel confident in the cleanliness of the business. As a manager, you must make sure this program succeeds.

Do not underestimate your role in a personal hygiene program. You have a responsibility to create the program and make sure it works. Some things to support a personal hygiene program include:

- Creating personal hygiene policies.
- Training food handlers on those policies and retraining them regularly.
- Modeling the correct behavior at all times.
The manager in the photo at right is modeling good personal hygiene practices. He is wearing clean clothes and a hair restraint. He is also using gloves.
- Supervising food safety practices at all times.
- Revising personal hygiene policies when laws or science change.



Apply Your Knowledge

Who Is at Risk? Write an X next to the food handler whose actions could spread pathogens.

1 _____



2 _____



3 _____



4 _____



For answers, please turn to page 3.24.

Handwashing and Hand Care

Proper handwashing and hand care are critical to preventing the spread of pathogens.

Handwashing

Handwashing is the most important part of personal hygiene. And many food handlers do not wash their hands correctly or as often as they should. Every day our hands touch surfaces covered with microorganisms that we cannot see. Even healthy people can spread pathogens. You must train your food handlers to wash their hands, and then you must monitor them.

Where to Wash Hands

Hands must be washed in a sink designated for handwashing. Monitor food handlers to make sure they do this. They should **NEVER** wash their hands in sinks designated for food prep or dishwashing or sinks used for discarding waste water. The food handler in the photo at left is using a designated handwashing sink.



How to Wash Hands

To wash hands or prosthetic devices correctly, follow these steps. The whole process should take at least 20 seconds.

- 1 Wet hands and arms.** Use running warm water.



- 2 Apply soap.** Make sure there is enough soap to build up a good lather. Follow the manufacturer's recommendations.



- 3 Scrub hands and arms vigorously for 10 to 15 seconds.** Clean the fingertips, under fingernails, and between fingers.



- 4 Rinse hands and arms thoroughly.** Use running warm water.



- 5 Dry hands and arms.** Use a single-use paper towel or a hand dryer.





If you are not careful, you can contaminate your hands after washing them. Consider using a paper towel to turn off the faucet and to open the door when leaving the restroom. The food handler in the photo at left is using a paper towel to open the restroom door in order to avoid contamination.

When to Wash Hands

Food handlers must wash their hands before preparing food or working with clean equipment and utensils. They must also wash their hands before putting on single-use gloves. The buser pictured below washed his hands before unloading the clean glasses.



Food handlers must wash their hands after the following activities:

- Using the restroom.
- Touching the body or clothing.
- Coughing, sneezing, blowing nose, or using a handkerchief or tissue.
- Eating, drinking, smoking, or chewing gum or tobacco.
- Handling soiled items.
- Handling raw meat, seafood, or poultry.
- Taking out garbage.

- Handling service animals or aquatic animals.
- Handling chemicals that might affect food safety.
- Changing tasks (before beginning new task).
- Leaving and returning to the kitchen/prep area.
- Handling money.
- Using electronic devices. The food handler in the photo at right must wash his hands before working with food or clean equipment and utensils.
- Touching anything else that may contaminate hands, such as dirty equipment, work surfaces, or cloths.



Corrective Action

If you see food handlers who are not following proper handwashing procedures, correct the situation immediately. If they have touched food or food-contact surfaces with unclean hands:

- Dispose of the contaminated food.
- Clean potentially contaminated equipment and utensils.
- Retrain or coach food handlers who are not following proper handwashing procedures if necessary.

Hand Antiseptics




Hand antiseptics, also called hand sanitizers, are liquids or gels that are used to lower the number of pathogens on skin. If used, they must comply with the Code of Federal Regulations (CFR) and Food and Drug Administration (FDA) standards.

Only use hand antiseptics after handwashing. **NEVER** use them in place of it. Wait for a hand antiseptic to dry before you touch food or equipment.

Hand Care




In addition to washing, hands need other care to prevent spreading pathogens. Make sure food handlers follow the guidelines in Table 3.1 on the next page.

Table 3.1: Hand-Care Guidelines

Topic	Guidelines
	Fingernail length Keep fingernails short and clean. Long fingernails may be hard to keep clean and can rip gloves. They can also chip and become physical contaminants. Fingernails should be kept trimmed and filed. This will allow nails to be cleaned easily. Ragged nails can be hard to keep clean. They may also hold pathogens and break off—becoming physical contaminants.
	False fingernails Do NOT wear false fingernails. They can be hard to keep clean. False fingernails also can break off into food. However, false fingernails can be worn if the food handler wears single-use gloves.
	Nail polish Do NOT wear nail polish. It can disguise dirt under nails and may flake off into food. However, nail polish can be worn if the food handler wears single-use gloves.

Infected wounds or boils

Infected wounds, cuts, and boils contain pus. They must be covered if they are open or draining to prevent pathogens from contaminating food and food-contact surfaces. How an infected wound or boil is covered depends on where it is located.

	If the wound or boil is located on the hand or wrist	Then cover it with an impermeable cover like a finger cot. Impermeable means that liquid cannot pass through the cover. Examples include bandages and finger cots. Place a single-use glove over the cover.
	If the wound or boil is located on the arm	Then cover it with an impermeable cover, such as a bandage. The wound must be completely covered.
	If the wound or boil is located on another part of the body	Then cover it with a dry, durable, tight-fitting bandage.

Apply Your Knowledge

When to Wash Hands? Write an X next to the statement if the food handler washed his or her hands at the correct time.

- 1 _____ Linda prepped raw chicken for the day's special. Then she washed her hands and sliced melons. After that, she washed and sanitized the cutting boards.
- 2 _____ Ryan was busing tables when his manager asked him to take out the garbage. When he came back, he used the restroom and washed his hands. Then he set up some tables.
- 3 _____ Maria was making meatballs when she took a call on her mobile phone. Her manager was nearby, so she quickly got back to work. Afterward, she wiped down her phone and washed her hands.
- 4 _____ Caitlyn started a batch of French fries in the fryer. While they were cooking, she took two orders at the cash register. As soon as the fries were done, she salted and packaged them. Then she washed her hands and packed the customers' orders.

Is That Right? Write an X next to the statement if the food handler correctly followed hand-care guidelines and handwashing procedures.

- 1 _____ Gabe, a restaurant manager, noticed that prep cooks were washing their hands in the prep sink. Gabe immediately spoke to the employees about designated hand sinks and appropriate versus inappropriate locations for washing hands.
- 2 _____ Michael plated an order and leafed through the paper tickets to make sure he had it right. Before touching each ticket, he licked his fingers to get a better grip. Fortunately, he realized his mistake. He quickly applied hand antiseptic and then ran the order to the table.
- 3 _____ Tina had a painful paper cut on her index finger. She liked it to be exposed to air so it would heal quickly. But at work, she covered it with a waterproof bandage and wore a finger cot.
- 4 _____ Marcus saw his dish washer, John, sneeze into his hands and then begin to put away clean dishes. Marcus stopped John and asked him to wash his hands. Then he had John put all the contaminated dishes back into the dishwashing machine. Afterward, Marcus worked with John to make sure he knew when to wash his hands.
- 5 _____ Carmen just finished food safety training and is eager to do the right thing. To wash her hands, she first applied soap. Then she used a clean paper towel to turn on the warm water. She wet her hands and arms and scrubbed them for five seconds. Afterward, she rinsed them thoroughly and dried them with a clean paper towel.

Single-Use Gloves

Many operations use single-use gloves when handling food. As the name implies, single-use gloves are designed for one task, after which they must be discarded. Used properly, they can help keep food safe by creating a barrier between hands and food. However, single-use gloves should **NEVER** be used in place of handwashing.



Single-use gloves should always be worn when handling ready-to-eat food, as shown in the photo at left. The exceptions include when washing produce or when handling ready-to-eat ingredients for a dish that will be cooked to the correct internal temperature.

Which Gloves to Buy

When buying gloves for handling food, follow these guidelines.

Approved gloves Only gloves approved for foodservice should be purchased.

Disposable gloves Buy only single-use gloves for handling food. **NEVER** wash and reuse gloves.

Multiple sizes Make sure you provide different glove sizes.

Latex alternatives Some food handlers and customers may be sensitive to latex. Consider providing gloves made from other materials.

Something to Think About

At an operation on the East Coast, the salad bar was very popular. One afternoon while prepping lettuce, a food handler cut her finger. She bandaged it right away, but she did not wear gloves. While she was tossing the salad, her bandage fell off into it. Soon after, a customer reported that she had found the used bandage in her salad. The manager quickly apologized and comped the customer's meal.

How to Use Gloves

When using single-use gloves, follow these guidelines to prevent contamination:

- Wash your hands before putting on gloves when starting a new task. You do not need to rewash your hands each time you change gloves as long as you are performing the same task and your hands have not become contaminated.
- Select the correct glove size. Gloves that are too big will not stay on. Those that are too small will tear or rip easily. The photo at right shows a correct fit.
- Hold gloves by the edge when putting them on. Avoid touching the glove as much as possible.
- Once you have put them on, check the gloves for rips or tears.
- **NEVER** blow into gloves.
- **NEVER** roll gloves to make them easier to put on.
- **NEVER** wash and reuse gloves.



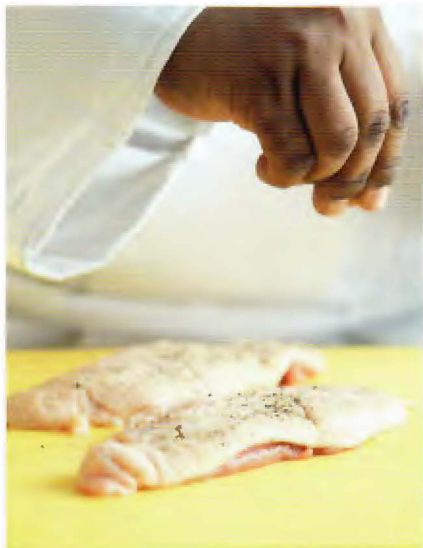
When to Change Gloves

Food handlers must change single-use gloves at all of these times:

- As soon as the gloves become dirty or torn.
- Before beginning a different task.
- After an interruption, such as taking a phone call.
- After handling raw meat, seafood, or poultry, and before handling ready-to-eat food.
- After four hours of continuous use.

Bare-Hand Contact with Ready-to-Eat Food

Food can become contaminated when it has been handled with bare hands. This is especially true when hands have not been washed correctly or have infected cuts or wounds. For this reason, do **NOT** handle ready-to-eat food with bare hands. And, if you primarily serve a high-risk population, **NEVER** handle ready-to-eat food with bare hands.



However, there may be exceptions. It may be acceptable to handle ready-to-eat food with bare hands in these situations:

- The food will be added as an ingredient to a dish that does not contain raw meat, seafood, or poultry, but will be cooked to at least 145°F (63°C). For example, adding cheese to pizza dough.
- The food will be added as an ingredient to a dish containing raw meat, seafood, or poultry, and the dish will be cooked to the required minimum internal temperature of the raw items. For example, adding salt and pepper to raw duck breasts, as shown in the photo at left.

Some regulatory authorities allow bare-hand contact with ready-to-eat food. If your jurisdiction allows this, you must have specific policies in place about staff health. You must also train staff in handwashing and personal hygiene practices.

Apply Your Knowledge

When to Use Single-Use Gloves Write an X next to the task when single-use gloves must be used.

- 1 _____ Slicing apples for an apple pie.
- 2 _____ Garnishing a plate with chopped herbs.
- 3 _____ Chopping lettuce for a mixed green salad.
- 4 _____ Breading chicken wings before frying them.
- 5 _____ Assembling a cooked hamburger for presentation.

For answers, please turn to page 3.24.

Apply Your Knowledge

Try Your Hand Write T next to each true statement about single-use gloves. Write F next to each false statement.

- 1 _____ Use the correct glove size.
- 2 _____ Blow into gloves when putting them on.
- 3 _____ Wash your hands after putting on gloves.
- 4 _____ Wash your gloves when they become dirty.
- 5 _____ Wash your hands before putting on gloves.
- 6 _____ Use hand antiseptics before putting on gloves.
- 7 _____ Check gloves for rips or tears after putting them on.
- 8 _____ Change your gloves after four hours of continuous use.
- 9 _____ Change your gloves when they become dirty or torn.
- 10 _____ Change your gloves after handling raw meat and before handling ready-to-eat food.

For answers, please turn to page 3.24.

Personal Hygiene Practices

Wearing dirty clothes or neglecting to shower probably will not go over well with your guests. But there are real food safety concerns, too. Keeping food safe means paying attention to personal hygiene. The entire staff needs to know the basics.

Personal Cleanliness

Pathogens can be found on hair and skin. There is a greater risk of these pathogens being transferred to food and food equipment if the food handler does not follow a personal hygiene program. Make sure food handlers shower or bathe before work.

Work Attire

Food handlers in dirty clothes may give a bad impression of your operation. More important, dirty clothing may carry pathogens that can cause foodborne illnesses. These pathogens can be transferred from the clothing to the hands and to the food being prepared. Set up a dress code, and make sure all staff follow it. The code should include the guidelines listed in Table 3.2, on the next page.

Eating, Drinking, Smoking, and Chewing Gum or Tobacco

Small droplets of saliva can contain thousands of pathogens. In the process of eating, drinking, smoking, or chewing gum or tobacco, saliva can be transferred to hands or directly to food being handled.





To prevent this, employees should only eat, drink, smoke, and chew gum or tobacco in designated areas. **NEVER** do these things when:

- Prepping or serving food
- Working in prep areas
- Working in areas used to clean utensils and equipment



Employees can drink from a covered container if they handle the container carefully to prevent contamination of their hands, the container, and exposed food, utensils, and equipment. A correctly covered container will include a lid with a straw, or a sip-lid top. The chef in the photo at left is using the correct container and lid.

Table 3.2: Work Attire Guidelines

Attire	Guidelines
	<p>Hair restraints</p> <ul style="list-style-type: none"> • Wear a clean hat or other hair restraint when in a food-prep area. This can keep hair from falling into food and onto food-contact surfaces. • Do NOT wear hair accessories that could become physical contaminants. Hair accessories should be limited to items that keep hands out of hair and hair out of food. • Do NOT wear false eyelashes. They can become physical contaminants. • Food handlers with facial hair should also wear a beard restraint.
	<p>Clean clothing</p> <ul style="list-style-type: none"> • Wear clean clothing daily. • Change soiled uniforms, including aprons, as needed to prevent contamination. • If possible, change into work clothes at work. • Store street clothing and personal belongings in designated areas. This includes items such as backpacks, jackets, electronic devices, keys, and personal medications. Make sure these items are stored in a way that does not contaminate food, food-contact surfaces, and linens. • Keep dirty clothing that is stored in the operation away from food and prep areas. You can do this by placing dirty clothes in nonabsorbent containers or washable laundry bags. This includes dirty aprons, chef coats, and other uniforms.
	<p>Aprons</p> <ul style="list-style-type: none"> • Remove aprons when leaving prep areas. For example, aprons should be removed and stored before taking out garbage or using the restroom. • NEVER wipe your hands on your apron.
	<p>Jewelry</p> <ul style="list-style-type: none"> • Remove jewelry from hands and arms before prepping food or when working around prep areas. Food handlers cannot wear any of the following: <ul style="list-style-type: none"> • Rings, except for a plain band • Bracelets, including medical bracelets • Watches • Your company may also require you to remove other types of jewelry. This may include earrings, necklaces, and facial jewelry. These items can fall off and become a physical contaminant. Ornate jewelry can be difficult to clean and can hold pathogens. Servers may wear jewelry if allowed by company policy.

Apply Your Knowledge

What Is Wrong with This Picture? Write an X next to each photo that shows a hygiene problem.

1 _____



2 _____



3 _____



4 _____



For answers, please turn to page 3.24.

Policies for Reporting Health Issues

You must tell your staff to let you know when they are sick. This includes newly hired staff who have not started working yet. Your regulatory authority may ask for proof that you have done this, which can be provided in the following ways:

- Presenting signed statements in which staff have agreed to report illness
- Providing documentation showing staff have completed training, which includes information on the importance of reporting illness
- Posting signs or providing pocket cards that remind staff to notify managers when they are sick

Reporting Illness

Staff must report illnesses before they come to work. They should also let you know immediately if they get sick while working, as the food handler in the photo shown at right is doing.

When food handlers are sick, you may need to restrict them from working with exposed food, utensils, and equipment. Sometimes you may even need to exclude sick employees from coming into the operation. This is especially important if they have these symptoms:

- Vomiting
- Diarrhea
- Jaundice (a yellowing of the skin or eyes)
- Sore throat with fever
- Infected wound or boil that is open or draining (unless properly covered)



Staff must also tell you when they have been diagnosed with an illness from one of these pathogens:

- Norovirus
- Hepatitis A
- *Shigella* spp.
- Shiga-toxin producing *E. coli* (STEC)
- *Salmonella* Typhi
- Nontyphoidal *Salmonella*

They must also tell you if they live with someone who has been diagnosed with any of these illnesses, except nontyphoidal *Salmonella*.

If a food handler is diagnosed with an illness from any of these pathogens, you must report the illness to your regulatory authority. See Table 3.3 for more information.

Watching for Staff Illnesses

As a manager, you should watch food handlers for signs of illness. That could include watching for things like:

- Vomiting
- Excessive trips to the bathroom
- Yellowing of the skin, eyes, and fingernails
- Cold sweats or chills (indicating a fever)
- Persistent nasal discharge and sneezing

Restricting or Excluding Staff for Medical Conditions

Use the following chart to help you decide how to handle staff illnesses and other medical conditions that can affect food safety. Note that for most illnesses, however, you should work with your local regulatory authority to determine how to respond.

Table 3.3: How to Handle Medical Conditions	
If	Then
The food handler has an infected wound or boil that is not properly covered.	Restrict the food handler from working with exposed food, utensils, and equipment.
The food handler has a sore throat with a fever.	Restrict the food handler from working with exposed food, utensils, and equipment. Exclude the food handler from the operation if you primarily serve a high-risk population. The food handler can return to the operation and/or work with or around food when he or she has a written release from a medical practitioner.
The food handler has persistent sneezing, coughing, or a runny nose that causes discharges from the eyes, nose, or mouth.	Restrict the food handler from working with exposed food, utensils, and equipment.
The food handler has at least one of these symptoms from an infectious condition: <ul style="list-style-type: none">• Vomiting• Diarrhea• Jaundice (yellow skin or eyes)	Exclude the food handler from the operation. Vomiting and diarrhea Food handlers must meet one of these requirements before they can return to work: <ul style="list-style-type: none">• Have had no symptoms for at least 24 hours.• Have a written release from a medical practitioner. Jaundice Food handlers with jaundice must be reported to the regulatory authority. Food handlers who have had jaundice for seven days or less must be excluded from the operation. Food handlers must have a written release from a medical practitioner and approval from the regulatory authority before returning to work.

Table 3.3: How to Handle Medical Conditions (continued)

If	Then
<p>The food handler is vomiting or has diarrhea and has been diagnosed with an illness caused by one of these pathogens:</p> <ul style="list-style-type: none"> • Norovirus • <i>Shigella</i> spp. • Nontyphoidal <i>Salmonella</i> • Shiga toxin-producing <i>E. coli</i> (STEC) <p>The food handler has been diagnosed with an illness caused by one of these pathogens:</p> <ul style="list-style-type: none"> • Hepatitis A • <i>Salmonella</i> Typhi 	<p>Exclude the food handler from the operation.</p> <p>Report the situation to the regulatory authority.</p> <p>Some food handlers diagnosed with an illness may not experience symptoms, or their symptoms may have ended. Work with the medical practitioner and the local regulatory authority to determine whether the food handlers must be excluded from the operation or restricted from working with exposed food, utensils, and equipment. The medical practitioner and regulatory authority will also determine when the employees can safely return to the operation and/or carry out their regular food handling duties.</p>

This chart is only a guide. Work with your local regulatory authority to determine the best course of action.

Apply Your Knowledge

Exclusion or Restriction? Write an E next to the statement if the food handler must be excluded from the operation. Write an R next to the statement if the person should be restricted from working with exposed food, utensils, and equipment.

- _____ Joe, a prep cook, has diarrhea.
- _____ Louisa, a busser, has a runny nose.
- _____ Bill, a line cook in a restaurant, has a sore throat with a fever.
- _____ Mary, a sous chef, has been diagnosed with Norovirus.

For answers, please turn to page 3.25.

Chapter Summary

- Food handlers can spread pathogens and contaminate food at every step in the flow of food. Good personal hygiene is critical in preventing contamination.
- Food handlers pose a greater risk for contaminating food when they have a foodborne illness; wounds or boils that contain a pathogen; contact with someone who is sick; or symptoms such as sneezing, coughing, diarrhea, vomiting, or jaundice. The risk is also greater when food handlers use the restroom and do not wash their hands.
- Other common ways that food handlers can contaminate food include touching the scalp, hair, nose, or ears; touching a pimple or wound; wearing and touching a dirty uniform; coughing or sneezing into their hand; and spitting in the operation.
- Hands must be cared for and washed correctly. They must be washed at a sink designated for handwashing. They also must be washed at the correct times. This includes before preparing food, working with clean equipment and utensils, putting on single-use gloves, and starting a new task. Food handlers must also wash hands after using the restroom and after many other activities that can contaminate their hands. Hand antiseptics should never be used in place of handwashing.
- If you see that food handlers have not washed their hands correctly and have touched food or food-contact surfaces, you must take corrective action immediately. Dispose of the contaminated food. Clean equipment and utensils that may have been contaminated. As needed, retrain or coach employees on handwashing.
- Single-use gloves must be worn when handling ready-to-eat food. Wash hands before putting on gloves. Wear the right size glove. Avoid touching the gloves when you put them on. Change your gloves when they are dirty or torn; before starting a new task; after an interruption in your task; after handling raw meat, seafood, or poultry and before handling ready-to-eat food; and after four hours of continuous use. Never handle ready-to-eat food with bare hands if you primarily serve a high-risk population.
- Before handling food or working in prep areas, food handlers must put on clean clothing and a clean hair restraint. They must remove jewelry from hands and arms. Aprons should be removed and stored when food handlers leave prep areas.
- Food handlers should only eat, smoke, or chew gum or tobacco in designated areas. They may drink from a covered container that has a lid and straw or a sip-lid top if they are careful to prevent contamination.
- Staff must report health problems to management before working with food. Managers should also watch for staff illnesses. Food handlers must be excluded from work if they are vomiting or have diarrhea and have been diagnosed with a foodborne illness from certain pathogens, such as nontyphoidal *Salmonella*. Food handlers also must not come to work if they have symptoms that include diarrhea, vomiting, or jaundice. Staff who have persistent sneezing, coughing, or a runny nose or a sore throat and a fever should not work with exposed food, utensils, or equipment. Check with your regulatory authority for requirements that apply to your operation.
- To keep food handlers from contaminating food, your operation needs a good personal hygiene program. You can minimize the risk of foodborne illnesses by establishing a program, training staff, and enforcing the program. Most important, you must set an example yourself by practicing good personal hygiene.

Chapter Review Case Study

You can avoid spreading pathogens to food if you follow a good personal hygiene program. This includes avoiding personal behaviors that can contaminate food; washing and caring for hands; following a dress code; limiting where food handlers can eat, drink, smoke, and chew gum or tobacco; and preventing food handlers who may be carrying pathogens from working with or around food or, if necessary, excluding them from the operation.

Now, take what you have learned in this chapter and apply it to the following case study.

Robert is a food handler at a deli. It is 7:47 a.m., and he has just woken up. He is scheduled to be at work and ready to go by 8:00 a.m. When he gets out of bed, his stomach feels queasy. He blames that on the beer he had the night before. Fortunately, Robert lives only five minutes from work. Despite this, he does not have enough time to take a shower. He grabs the same uniform he wore the day before when prepping chicken. He also puts on his watch and several rings.

When Robert gets to work, he realizes that he has left his hat at home. Robert is greeted by an angry manager. The manager puts Robert to work right away, loading the rotisserie with raw chicken. Robert then moves on to serving a customer who orders a freshly made salad. Robert is known for his salads and makes the salad to the customer's approval.

1 Robert made several errors. Identify as many as you can on the lines below.

For answers, please turn to page 3.25.

Study Questions

Circle the best answer to each question.

- 1 After which activity must food handlers wash their hands?**
 - A Clearing tables
 - B Putting on gloves
 - C Serving customers
 - D Applying hand antiseptic

- 2 When washing hands, what is the minimum time you should scrub with soap?**
 - A 5 seconds
 - B 10 seconds
 - C 20 seconds
 - D 40 seconds

- 3 What should food handlers do after prepping food and before using the restroom?**
 - A Wash their hands
 - B Take off their hats
 - C Change their gloves
 - D Take off their aprons

- 4 A food handler will be wearing single-use gloves to assemble boxed lunches. When must the food handler's hands be washed?**
 - A After 4 hours
 - B After the first hour
 - C After putting on the gloves
 - D Before putting on the gloves

- 5 A cook wore single-use gloves while forming raw ground beef into patties. The cook continued to wear them while slicing hamburger buns. What mistake was made?**
 - A The cook did not wear reusable gloves while handling the raw ground beef and hamburger buns.
 - B The cook did not clean and sanitize the gloves before handling the hamburger buns.
 - C The cook did not wash hands before putting on the same gloves to slice the hamburger buns.
 - D The cook did not wash hands and put on new gloves before slicing the hamburger buns.

Study Questions

- 6 Who is most at risk of contaminating food?**
- A A food handler whose spouse works primarily with high-risk populations
 - B A food handler whose young daughter has diarrhea
 - C A food handler who gets a lot of aches and pains
 - D A food handler who eats a lot of rare meat
- 7 A food handler has diarrhea and has been diagnosed with an illness from *Shigella* spp. What should the manager tell this food handler to do?**
- A Wear gloves while handling food
 - B Work in a non-food handling position
 - C Stay home until approved to return to work
 - D Wash hands frequently while handling food
- 8 A food handler prepares meals for a child day-care center. What symptoms require this food handler to stay home from work?**
- A Thirst with itching
 - B Soreness with fatigue
 - C Sore throat with fever
 - D Headache with soreness
- 9 When is it acceptable to eat in an operation?**
- A When prepping food
 - B When washing dishes
 - C When sitting in a break area
 - D When handling utensils
- 10 What should a manager of a hospital cafeteria do if a cook calls in with a headache, nausea, and diarrhea?**
- A Tell the cook to stay away from work and see a doctor
 - B Tell the cook to come in for a couple of hours and then go home
 - C Tell the cook to rest for a couple of hours and then come to work
 - D Tell the cook to go to the doctor and then immediately come to work

Answers

3.4 Who Is at Risk?

2 and 3 should be marked.

3.9 When to Wash Hands?

1 and 2 should be marked.

3.9 Is That Right?

1, 3, and 4 should be marked.

3.12 When to Use Single-Use Gloves

2, 3, and 5 should be marked.

3.13 Try Your Hand

- 1 T
- 2 F
- 3 F
- 4 F
- 5 T
- 6 F
- 7 T
- 8 T
- 9 T
- 10 T

3.16 What Is Wrong with This Picture?

1, 3, and 4 should be marked.

Answers

3.19 Exclusion or Restriction?

- 1 E
- 2 R
- 3 R
- 4 E

3.21 Chapter Review Case Study

Robert made the following errors:

- Robert did not take a bath or shower before work.
- Robert wore a dirty uniform to work.
- Robert should have removed his watch and rings (with the exception of a plain band) before prepping and serving food.
- Robert did not wear a hair restraint.
- Robert did not report his illness to the manager before coming to work.
- Robert did not wash his hands before handling the raw chicken.
- Robert did not wash his hands after handling the raw chicken.

3.22 Study Questions

- 1 A
- 2 B
- 3 D
- 4 D
- 5 D
- 6 B
- 7 C
- 8 C
- 9 C
- 10 A