
Market Chain Enhancement Project (MarChE)

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Food Sanitation, Safety and Security Manual

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FROM THE AMERICAN PEOPLE

Market Chain
Enhancement
MarChE
Project

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CHAPTER 1: Personal Cleanliness and Health

Many food borne illnesses are traced to the employees who handle foods. Food service employees should not cough or sneeze into their hands, smoke cigarettes, scratch their heads, touch their faces, or otherwise practice habits that will contaminate their hands and the food they work with (see Exhibit 3).

All food service employees should have regular physical examinations by a medical doctor. Many local laws require blood tests, chest X-rays, and examinations when a food service worker is hired, and on a regular basis thereafter.

Food service employees who are sick should not report to work. An employee with a cold, cough, open sore, or boil could easily contaminate food. An employee who has been exposed to an infectious disease should consult a doctor before returning to work.

Example Personal Cleanliness Guidelines for Food Service Employees

1. Bathe daily and use deodorant and antiperspirant.
2. Shampoo your hair as often as necessary to keep it healthy and clean. Wear it in a simple, easy-to-manage style.
3. Wear clean clothes or uniforms. ;
4. Keep your fingernails clean, well-trimmed, and free of nail polish.
5. Do not wear excessive makeup and perfume.
6. Do not wear jewelry other than unadorned wedding bands. This guideline is primarily for sanitary reasons, but it also helps protect both you and your jewelry.
7. Wear clean, low-heeled, properly fitting shoes with non-skid soles. The heel and toe should be completely enclosed for sanitation and safety reasons. Do not wear tennis shoes, slippers, or sandals.
8. Always wash your hands with soap and warm water before beginning work and before beginning a new food-handling operation. Your hands should also be washed before returning from the rest room, after touching your face or hair, and after handling soiled articles, including money.
9. Wash hands in handwashing basins, not preparation or dishwashing sinks.
10. Use disposable towels to dry your hands, not dish towels, aprons, or your clothes or uniform.
11. Employees should wear hair restraints; they should not use hairspray as a substitute. Avoid hairpins and barrettes because they can slip out.
12. Do not comb your hair, use hair spray, file your nails, or apply makeup in food service areas.
13. Do not smoke or chew gum in any food production areas.
14. Do not cough or sneeze near food. It is unsanitary to carry used handkerchiefs in your pocket. If needed, disposable tissues should be used and then discarded. Employee eating habits have an impact on sanitation.

Establish and enforce rules about where and when employees can eat. Designate specific areas for employee use, and permit eating only in those areas. Employees should be required to wash their hands after they finish eating.

Cleanliness

Hotels, restaurants, bars and hospitals have a lot to gain and more to lose based on the degree of their cleanliness. An establishment with a well-deserved reputation of cleanliness will attract customers who will take any opportunity to recommend it to others. One of the most important considerations a customer will take into account when choosing a hotel or restaurant is cleanliness.

It is extremely important to develop a program for the sanitation of your property and systematically maintain a proper public image. Start by making a list of the items that must be cleaned. Next, choose the frequency for cleaning each item on the list. Here is an example list for a dining room:

Salt and Pepper Shakers:

Every week, these should be emptied and washed as an evening closing duty, preferably on separate nights. Turn them upside down to dry them overnight so that an opening server may fill them at the beginning of the following shift. Salt and pepper shakers should be filled and wiped off daily, making sure the caps are tight. If they are done daily they don't need rice.

Sugar Bowls:

Sugar bowls should be emptied and washed once a week, and filled daily with fresh sugar.

Coffee Cups:

Since these become stained from tea and coffee, they may need to be soaked in special stain removing chemicals available from the detergent suppliers. If you cannot afford the right chemical, you can use a light vinegar solution. Bleach should not be used to remove the stains; it can scratch the enamel coating of the china, and eventually make the stains permanent.

Coffeepots:

The pots used for serving coffee should be polished and clean at all times. Coffee oil residue on the inside may be removed either with special coffee stain remover, a mix of citric acid powder and hot water, or a vinegar solution. The brewing pots can be washed with soap and water, ice cubes and salt, or soaked with the stain remover. Proper rinsing is crucial to this process.

Coffee machine:

Clean daily. Wash moving parts and soak overnight. Take apart and deep clean once every week.

Counters:

Clean several times a day. Sanitize at closing.

Table bases:

Table bases should be checked. Any bases that are dirty or in need of paint can negatively affect the dining experience.

Floors:

Daily, after closing. Clean with soap and water. Use a bleach solution weekly.

Menus and promotional materials:

These should be checked for cleanliness and wear. They should be wiped clean or replaced as needed.

Windows, doors, pictures and mirrors:

All glass surfaces should be polished thoroughly before service. (You can use old newspapers to do this).

Doorknobs:

Germs collect on doorknobs and can be transferred to staff and guests. They should frequently be wiped clean.

Restrooms:

A male and female employee should be assigned to check the restrooms on an hourly basis for cleanliness and the need for supplies.

General Guidelines for Manually Cleaning Small Wares

1. Remove large quantities of soiled food from dishware with a spatula, brush or other utensil before washing. Inspect dishware during washing and discard cracked, chipped, or unusable items. Often, a presoaking process is required to properly wash heavily soiled dishware.
2. Wash dishware in a sink with at least three or four compartments. If a three-compartment sink is used, procedures will involve washing, rinsing, and sanitizing. If a four-compartment sink is used, the normal process will involve prewashing, washing, rinsing, and sanitizing. Always follow local and other health codes.
3. Use the proper type and quantity of dishwashing soap, based on information from the soap's manufacturer or supplier. Provide employees with the proper measuring equipment.
4. Use plastic brushes with firm bristles to wash dishware. Don't use dishcloths, dish mops, or soft sponges—they are very difficult to keep clean. Don't use metal cleaning brushes because they can leave metal slivers in or on items being washed. Wash glasses with a glassware brush.
5. The normal order of washing is as follows: glassware, flatware, dishes, trays, and pots and pans.
6. Frequently drain wash water and refill with clean, fresh, hot water.
7. After they are washed, glasses, cups and bowls should be placed upside down in rinse racks. They should be placed loosely in the racks so that rinse water will reach all surfaces. For the same reason, dishes, trays, and pots and pans should not be crowded on the rinsing racks.
8. Place flatware in rinse baskets with handles up.
9. Remove all detergent from dishes before placing them in the rinse sink.
10. Fill rinsing sink with clean water at approximately 180°F (82°C) if sanitizing with hot water. If sanitizing with chemicals, it's possible to sanitize with water at a much lower temperature. (Different chemicals may call for different temperatures—always check the manufacturer's instructions.)
Change rinse water frequently.

There are two ways to properly sanitize dishware washed manually:

- **Hot water.** Water must be at least 180°F (82°C) to sanitize dishware. To raise water to that temperature you need a booster heater or an electrical heating element that can be immersed directly in the water. Since employees cannot remove items from 180-degree water with their hands, they must use tongs or other devices.
- **Chemicals.** It is frequently more practical to use a chemical sanitizing agent to sanitize dishes. If chemicals are used, the water does not need to be excessively hot. Use proper chemical sanitizing agents in the correct amount. Determine the quantities to use, and provide appropriate training and measuring utensils to employees.

CHAPTER 2: Sanitary Food Handling

Proper food handling is more a matter of developing a proper attitude than memorizing an extensive list of dos and don'ts. If you and your employees understand the need to be careful with food and know basic sanitation principles, many of the specific rules become a matter of common sense. The first step in proper food handling is simply making it clear to everyone that sanitation is a priority when purchasing, receiving, storing, preparing, and serving foods.

Purchasing

Restaurant personnel should only purchase food that is wholesome and suitable to eat. Food should be obtained from commercial sources that comply with all applicable local, regional, and national sanitation laws.

Generally, meat and poultry products shipped from other countries or shipped within Haiti should be inspected by agents from the Department of Agriculture to make sure these products are suitable for human consumption. Inspection is done at the processing plants in the USA to make sure that (1) meat and poultry products have the proper quality, (2) the plant is clean, and (3) proper procedures are used by the plant's employees.

Purchasers should be aware of the difference between “inspection” and “grading.” “Inspection” refers to an official examination of food to determine whether or not it is wholesome. “Grading” refers to the process of analyzing foods relative to specific, defined standards in order to assess its quality. Inspection is often required by law, but grading is optional. Many purchasers prefer to buy graded products because they know those products have met specific quality standards— that is one reason producers are willing to pay to have their fruits, vegetables, cheese, and other products graded. Purchasers should be aware, however, that products are graded at the processing plants; improper handling by delivery or restaurant personnel can adversely affect quality.

Receiving

All incoming foods should be checked to make sure they meet quality standards stated in the operation's purchase specifications. Employees who receive American meats and poultry for the operation should look for the USDA "Inspected and Passed" labels. The following are examples of sanitation guidelines for receiving:

- Look at the condition of the delivery vehicle. Does the interior look clean? Is it an open-bed truck or an enclosed truck? The chance that products may be contaminated is greater with an open-bed truck

- Carefully inspect every case that appears damaged; there is a possibility that the food within may be contaminated.
- Check all deliveries for evidence of insect or rodent contamination.
- Check incoming products for unusual or foul odors. Such odors generally mean a problem exists.
- Don't accept frozen foods that feel partially or completely thawed, or appear to be spoiled.

Storing

Food should be stored as soon as possible after receiving. Keep stored foods covered. Uncovered food may dry out or absorb odors. It is also possible for debris or other objects to fall into uncovered food from storage shelves above. Store frozen foods in their original containers because these containers are usually moisture- and vapor-proof. Store staples such as flour, cornmeal, and rice in rust-proof and corrosion-resistant containers with tight-fitting lids. Do not use metal containers; they are hard to clean, sanitize, and maintain.

Keep stored food away from walls and dripping pipes. Place food on slotted shelves that are at least two inches away from the wall and six inches off the floor.

Recommended Refrigerated Storage Practices

All cooked food or other products removed from original container must be enclosed in clean, sanitized, covered containers and identified.

Do not store packaged food in contact with water or undrained ice.

Check refrigerator thermometers regularly. Recommended temperatures are as follows:

Produce	45° F. (7° C.) or below
Dairy and Meat	40° F. (4° C.) or below
Seafood	30° F. (-1° C.) or below

Store large pieces of meat and all foods to permit free circulation of cool air on all surfaces.

Do not store food directly on floor or base.

Schedule cleaning of equipment and refrigerated storage rooms at regular intervals.

Date all merchandise upon receipt and rotate inventory on a "first-in-first out" basis.

Check fruits and vegetables daily for spoilage.

Store dairy products separately from strongly-odored foods.

Store fish apart from other food products.

Establish a preventive maintenance program for equipment.

DOUBLE CHECK THESE PRACTICES

- Facilitate air circulation and floor cleaning.
- Don't line shelves with paper or other materials because this will block airflow. All shelves must be clean.
- Food that cannot be stored on shelves because of size or bulk should be stored on easily-movable dollies or skids, not on the floor. Even if it is in containers, food should never be stored on the floor because these containers may be placed on kitchen counters to be opened and emptied; this would allow soil on the bottom of the containers to contaminate the counter.
- Recommended temperatures in refrigerated storage areas vary with the type of food being stored. Freezer temperatures should be 0°F (-18°C) or below. Food products not requiring refrigeration or freezing should be stored in clean, cool, and moisture-free areas that are well-ventilated and free from rodents and insects. Temperatures for dry food products should be between 50°F (10°C) and 70°F (21°C); relative humidity should range from 50% to 60%.
- Issue food to preparation or service areas on a first-in, first-out (FIFO) basis. In other words, products that are in storage the longest should be used first. Before storing a product, mark the date it was received on the package or container it came in. This will help with stock rotation.
- Products that seem spoiled or unusable should be thrown away, but be sure that employees notify you first!
- Inspect storage areas often. Do not keep poisons, toxic substances, or cleaning materials in food storage areas.

Preparing

1. Basic sanitation procedures should always be followed when working with and around food.
2. Keeping hands clean during food preparation is a must. The use of disposable gloves is often practical.

3. Be sure to clean food preparation tools and other equipment properly. Sanitize contact surfaces between every food-processing task.
4. Wash the tops of cans before opening them. Do not use cans that have swelling at the tops or bottoms, or those with dents along the side seams. Swelling could mean that germs have contaminated the product; dents along the side seam may indicate the can's seal is broken. If canned products have unusual or unfamiliar odors, or if the contents seem foamy or milky, don't use them.
5. Wash all raw fruits and vegetables thoroughly before preparation or serving. Be especially careful when handling and preparing meat, eggs, fish, shellfish, and other foods high in protein. Do not use meats that smell strange or have slimy surfaces. Generally, any type of food that appears moldy, cloudy, or that has a strange smell should be discarded. Do not taste foods, since this test proves nothing and can make you ill.
6. Never leave food out overnight to thaw. Potentially hazardous foods should be thawed in one of the following ways:
 - In refrigerated units
 - Under running water at a temperature of 70°F (21 °C) or below
 - In a microwave oven if the product will be immediately transferred to other cooking equipment as part of the cooking process—for example, when steaks are charbroiled from their frozen state.
7. Do not refreeze thawed products. Freezing, thawing, and refreezing can create sanitation problems and destroy food quality.
8. Prepare perishable foods as close to serving time as possible. To kill any germs that may be present, all foods should normally be heated to at least 140°F (60°C) in the center of the food mass.
9. Some foods require a higher temperature before serving. The center of poultry, poultry stuffings, stuffed meats, and stuffings containing meat should be heated to 165°F (74°C), pork to 150°F (66°C).
10. On the other hand, rare roast beef and rare beef-steak need to be heated only to 130°F (54°C). Meat and poultry temperatures should be checked with a cooking thermometer.
11. Keep cold foods refrigerated until serving begins (or during service, in the case of a cafeteria or buffet operation). Many kitchens have refrigerators where prepared foods can be kept until service.

12. A common problem in many food service operations involves holding hot foods that are prepared in advance of service. Casseroles, stews, gravies, and other products high in protein are often kept in a hot water bath at lukewarm temperatures for long periods of time. If germs get into these products, conditions are ideal for food poisoning or infection. Protein foods must be kept above 140°F (60°C), or below 45°F (7°C) or they should not be kept at all.

Official Inspection Stamps for Imported American Beef, Poultry, Eggs, Cheese, Dry Milk, Fruits and Vegetables:



Dairy and Egg Products



- The top quality for butter and cheddar cheese.



- Second highest quality for butter and cheddar cheese.



- May appear on cottage cheese and processed cheese.



- Used on instant non-fat dry milk.



- Top quality for fresh eggs, also known as fresh fancy.



- Second highest grade for shell eggs.

Fruits and Vegetables



- The top USDA grades for canned and frozen fruits and vegetables.



- The top USDA grade for fresh fruits and vegetables.

Meat and Poultry



- USDA inspection stamp for meat wholesomeness, a **mandatory requirement**. Meat may carry a State inspection stamp as an alternate.

The following quality grades are **not requirements**.



- Highest quality for beef, veal, and lamb.



- The widest grade for beef, veal, and lamb.



- The third grade for beef, veal, and lamb.

Among grades for pork are U.S. No. 1, 2, and 3.



- Yield grades measure the percentage of lean meat a carcass contains. Yield Grade 1 denotes the highest yield, and Yield Grade 5 the lowest.



- USDA inspection stamp for wholesomeness for poultry, a mandatory requirement.



- The highest grade for chicken, turkeys, ducks, and geese.

Fish (Department of Commerce Symbols, a Voluntary Program)



- Product is clean, safe, and wholesome; processed and packed under supervision of Federal inspectors.



- Product is of a specified quality as determined by a Federal inspector.

Source: *Sanitation Operations Manual* (Chicago: National Restaurant Association, 1979), pp. A6–A9.

Sanitation Procedures

Employee Activity to Avoid

1. Don't leave inventory on the loading dock.
2. Don't store food on the floor.
3. Don't store food against the wall.
4. Don't leave leftover food out
5. Don't hold food in temperatures between 45-140°F.
6. Don't refreeze food.
7. Don't cook food incompletely
8. Don't taste suspicious-looking food.
9. Don't serve unwashed fruits or vegetables or open cans with unwashed tops.
10. Don't leave food particles on equipment glasses, flatware, or dishware.
11. Don't use cracked or chipped glasses or dishware.
12. Never handle glasses by the rim, utensils by the eating portion, or tops of plates.
13. Never place soiled dishes on the same tray with food that is to be served.
14. Don't allow food to stand on the service counter.
15. Never sit on counters or tables; don't lean on tables.
16. Don't have hair loose.
17. Keep your hands away from your face and hair and out of your pockets; do not
18. Never chew gum or anything of a similar nature.

Reason for Avoidance

- Spoilage of perishable goods through bacterial growth.
- Food is easily contaminated by dirt on floor. Prevents air circulation.
To avoid contamination
- To avoid contamination.
- To avoid contamination.
- Quality decreases, bacteria count increases
To avoid contamination.
- Preservation of employee's health.
- To avoid contamination.
- To avoid contamination.
- Bacteria can grow in the cracks.
- Transfer of bacteria from hands to dishware.
- Possible contamination.
- Cooling food increases chances of bacterial growth.
- Contaminants on clothing are transferred to tables.
- Hair falls in food and causes contamination. It is also not appetizing.
- Possible contamination.
- It can spread infection.

Suggestion

- Count inventory immediately and store in proper area, refrigerators, freezers, and dry storage.
- Food should be two inches away from the wall to ensure circulation.
Refrigerate food as soon as possible.
- Use completely or store after product is cooked.
Heat food without Interruption.
If it looks suspicious, throw it out.
- Clean all equipment after use and inspect glasses, flatware, and dishware before service.
- Touch dishes only by the edge, cups by handles, glasses near the base, and utensils by the handles.
Use buspersons or clear the table with a separate tray.
- Serve it at once.
- Wear hairnets or hats.
- If you must do any of these things, wash hands thoroughly afterward.

19. Never carry the check or pencil in your mouth. Don't put a pencil in your hair.	Spreads infection.	Check should be carried in your hand; pencil in your pocket
20. Avoid sneezing, yawning, or coughing.	Spreads infection.	If unavoidable, be sure to turn away from food or guests and cover your mouth
21. Do not spit	Disease can spread	
22. Don't eat or nibble on the job	Never eat from bus trays or soiled dishes	Eat at designated break times and wash hands thoroughly when finished.
23. Never smoke on duty.	The nicotine virus can be transferred as well as disease	Smoke in designated areas during breaks: wash hands thoroughly afterward.
24. Never use your apron as a towel.	Clean hands are contaminated on a dirty apron.	Use disposable towels.
25. Never work with dirty hands	Possible contamination.	Wash hands using warm, soapy water. Lather well and rinse with clear water. Dry hands with disposable towels.
26. Never handle clean dishes if hands have not been cleaned after touching soiled dishes.	Possible contamination from soiled dishes.	Wash hands thoroughly between these two stages.
27. Never touch or pick food with hands.	Spread of infection from the skin.	This is for all personnel—dishwashers, servers, and buspersons.
28. Don't report to work in soiled clothes.	Soil can harbor infection.	Use the proper serving tool or gloves.
29. Avoid excessive jewelry.	Food particles can collect and cause contamination.	Always wear a clean uniform and apron.
30. Don't arrive at work needing a bath.	To avoid bacterial contamination.	Wear a minimum of jewelry, (wedding band). Bathe and use deodorant daily.
31. Never use the same knife and cutting board for meats and vegetables without washing.	Salmonella and other very small organisms can spread.	Use a different knife and board, or wash board and use a sanitizer.
32. Don't report to work if sick.	Increases the chances of spreading the illness.	Call in so a replacement can be located.
33. Don't work with exposed wounds.	Increases risk of wound infection and of spreading it	Always keep wounds covered with the proper type of bandage.
34. Don't report to work if your health card has expired.	Prevents the spread of communicable disease, tuberculosis, and venereal disease.	Keep track of the expiration date and renew it immediately.
35. Never wash hands in sinks used to prepare food.	Contamination of food.	Use designated hand washing sink.
36. Never taste food with your finger.	Contamination of food by saliva.	Use a tasting spoon and only once.
37. Never re-serve food.	Handling of the food by guests can spread disease.	Throw food away; avoid giving an excess of rolls, etc., when serving.
38. Never serve pork rare.	To prevent trichinosis.	Cook pork until done to kill trichina organisms.
39. Never leave racks of glasses bowl-side	Airborne illness can collect up.	Store glassware inverted
40. Never store food in an open container.	Airborne particles can contaminate foods.	Always store food in sealed containers.

41. Don't leave prepped food out.

42. Never dry Silverware, glasses, utensils, or cooking equipment with a towel.

43. Don't store garbage with food.

Airborne illness can collect up.
Airborne particles can contaminate foods.
Increases chances of infection

Possible bacterial contamination

Prepare just prior to cooking or serving.

Let air dry or dry in dishwashing machine's cycle.

Have the proper place for each.

Source: Adapted from material originally developed by Jeanne Picard, School of Hotel, Restaurant and Tourism Administration, University of New Orleans, 1980.

CHAPTER 3: FOOD SAFETY

Causes of Unsafe Food:

a. Chemical Poisoning

Cleaning agents, pesticides, and other toxic substances must be kept away from food. Fruits and vegetables should be washed thoroughly before use. Canned food must be removed from opened cans and stored in other containers. Do not use rusted pots, pans or cooking utensils.

b. Germs

Germs are too small to see without a microscope. Not all of them are harmful; some are beneficial and useful. We need them to make bread, cheese, wine and sauerkraut. Some are used to manufacture medications, and some are necessary in our body to help with digestion. However some germs are harmful and dangerous. These include bacteria, viruses, molds and parasites. The most dangerous germs are the ones which prefer the foods we like: meat, poultry, fish, eggs, and baked foods with crème fillings. They need moisture and favorable temperatures between 45° F (7° C) and 140° F (60° C) in order to multiply rapidly and provoke food borne illnesses.

c. Allergies

Some people have allergies that could be fatal. The most known are tree nuts and shellfish.

Food Borne Illnesses

There are two basic types of food borne illnesses:

1. Food poisoning: Illness caused by germ-produced poisons
2. Food infections: illness caused by germs in the food.

Types of Food Poisoning

Staphylococcus poisoning: Eating food infected by careless food handlers with germs from cuts, sneezing or coughing around food. Found in cream and custard dishes, meat, poultry, ham, meat salads.

Botulism: Eating food containing poison from bacteria in canned

food not properly prepared. (Meat, fish, corn and beans),

Salmonella (Sam) poisoning: Eating improperly cooked food containing this organism. Caused by contact with fecal material (mostly from rodents). In meats, poultry, eggs, baked goods with cream filling.

Clostridium perfringens: Eating food contaminated by food handlers or insects. Found in meats, poultry, soups, gravy and sauces made with meat or poultry.

Strep: Eating foods contaminated by coughing, sneezing, dust, dirt from clothing or contaminated air in the facility.

Trichinosis: Eating contaminated pork meat or products.

Tuberculosis: Eating food handled by carriers of the disease. Transmitted in milk or milk products.

Food Infections

Salmonellosis: The most common form of food infection. Sam germs live in the intestinal track of people, hogs and chickens. Foods especially susceptible are ground beef, pork, poultry, fish, eggs, egg products and cream fillings. Occurs within 12 – 48 hours. Symptoms include, abdominal pain, diarrhea, fever, vomiting and chills.

Clostridium perfringens: Germ found everywhere: in the soil, in dust, and in the intestinal tracks of people and animals. Infects soups gravies and stews kept lukewarm in deep containers for long time. Occurs within 8 – 12 hours. Symptoms: abdominal pain and diarrhea.

CHAPTER 4: Hospitality / Food Service Accidents

Let's look at the most common types of food service accidents and ways to protect employees and others:

Burns

Many accidents in food service operations result in burns. The following are among actions that can be taken to prevent burns:

- Follow recommended procedures when using any cooking equipment or when lighting gas equipment.
- Plan ahead. Always have a place prepared for hot pans before removing them from a range or oven.
- Use dry potholders; a wet or damp potholder can cause a steam burn. Never use an apron, towel, or dishcloth.
- Don't use pans with loose handles (they can break off) or rounded bottoms (the pans may tip).
- Don't fill pots, pans, or kettles too full. Open pots carefully by raising the back of their lids so steam will escape away from you.
- Stir food carefully with long-handled spoons or paddles; avoid splattering and splashing.
- Don't reach into hot ovens; use a puller or other proper tool.
- Allow equipment to cool before cleaning it.
- Know how to put out fires. If food catches on fire, spread salt or baking soda on the flame; do not use water. Know how to use fire extinguishers and other safety equipment.
- Prohibit horseplay.
- Be careful when pouring coffee and other hot liquids.
- Use caution around heat lamps.

Muscle Strains and Falls

To avoid muscle strains, always have a firm footing before attempting to lift a heavy object. Keep your back straight; do not bend forward or sideways. Bend your knees to pick up low objects and lift with your legs, not your back. Employees should not try to carry too many items at one time or items that are too heavy for them. When carrying a heavy load, ask for help or use a cart.

Next to traffic accidents, falls kill more people than any other kind of accident. Most falls are not from high places but are slips or trips at floor level.

Precautions to prevent falls include the following:

- Keep floors clean and dry at all times. Wipe up spills immediately. Use "slip-resistant" floor waxes and use "Caution" or "Wet Floor" signs when appropriate.
- Keep hazardous objects such as boxes, mops and brooms off floors. Replace loose or upturned floor tiles as soon as they are noticed.
- Repair cracked or worn stair treads.

- Wear properly-fitting shoes with low heels and non-skid soles. Never wear worn-out shoes, thin-soled shoes, slippers, high heels, tennis shoes or sandals. The heel and toe of the shoe should be completely enclosed. Keep shoestrings tied to prevent tripping.
- Walk, don't run, and use caution when going through swinging doors.
- Use a sturdy stepladder if it is necessary to reach high places.
- Make sure that entrances and exits are clean and safe. This includes removing mud if the property is located in an area where this is a potential problem with rain. Keep floor mats or other protective devices clean and in good condition.
- Keep any areas in which employees must work or walk well-lit; pay special attention to exterior areas and steps where accidents are more likely to occur.

Cuts

Cuts are constant hazards for food preparation employees. Employees must be alert when using knives, slicers, or similar equipment.

There are many common guidelines for using knives. Always place food to be cut on a table or a cutting board. Cut away from your body; the food item should be firmly grasped and sliced by cutting downward. When chopping food with a knife, hold the food with your free hand and keep the point of the chopping knife on the block. Dull knives cause more problems than sharp knives because dull knives require employees to exert more pressure, and slippage problems are more likely to occur.

Discard or repair knives with loose handles. Don't leave knives on the edge of a counter—push them back so they cannot fall on the floor or on someone's foot. Don't try to catch a falling knife. Never play with knives or use them as substitutes for screwdrivers or can openers. Don't use knives to open cardboard cartons; use the proper container-opening tool.

Cuts can also occur when knives or other sharp tools are washed. For this reason, all sharp tools should be washed separately. Never place knives or other sharp tools in sinks filled with soapy water, dean all sharp tools with caution. Use a folded heavy doth and work slowly and carefully from the center of the blade to the outside cutting edge. When cleaning a slicer, make sure the blade of the slicer is in the position recommended for cleaning. Unplug the unit and refer to the manufacturer's operating and maintenance manual for specific cleaning instructions.

Minimizing the use of glass in the kitchen can help prevent cuts. Any broken glass should be cleaned up immediately with a broom and dustpan, not your fingers. If glass is broken in a dishwasher, drain the dishwasher and pick up the glass with a damp doth. Always place broken glass or china in a separate refuse container.

Here are some additional precautions for preventing cuts:

- Keep knives, cleavers, saws, and other sharp tools in racks or special drawers when not in use.
- Use the correct-size cutting tools and make sure they have the proper blade.
- Use safety guards and any other safety items provided on equipment.
- Be careful with grinders. Use the feeder/tamper.

- Use caution when operating slicers and other electric cutting tools.
- When using sharpening steels, be sure there is a finger guard between the handles and the steel.

Equipment Accidents

Safety precautions should be used whenever employees work with equipment. Don't take shortcuts when operating potentially hazardous food service equipment; always follow the manufacturer's instructions carefully. Place the instructions on or near equipment so that employees can refer to them.

Train employees how to use, maintain, and clean equipment. New employees should be carefully supervised to ensure that proper procedures are followed. Whenever possible, disconnect equipment from power sources before cleaning.

Properly maintain equipment. Improper maintenance can lead to unsafe working conditions. Conduct regular and detailed equipment inspections with maintenance personnel or representatives from the equipment supply company. Make sure all gas connections conform with applicable regulations.

Here are some special precautions for working with electrical equipment:

- Ensure that all electrical equipment and connections conform to national, state, and local electrical code requirements. Electrical equipment should, where applicable, bear the Underwriters Laboratories seal of approval
- Carefully follow the manufacturer's instructions whenever operating electrical equipment.
- Always unplug electrical equipment before cleaning it. Never touch metal sockets and electrical equipment when your hands are wet or you are standing on a wet floor.
- Practice preventive maintenance. A qualified electrician should inspect all electrical equipment, wiring, switches, etc., on a regular basis.

Fire

Another potential accident in food service operations is fire. The following precautions can help lessen the danger of fire:

- Properly clean and maintain cooking equipment and exhaust hoods/ filters.
- For sanitation as well as safety reasons, limit smoking to restricted areas.
- Be sure there is adequate fire extinguishing equipment on hand. Personnel should know where it is located and how to use it. Consult local fire authorities about the purchase, use, and inspection of fire extinguishing equipment
- Consider using fire detection devices. These may be specialized equipment items that can detect smoke, flames, and/or heat.
- In the future, consider using automatic sprinkler systems. They are a very effective way to control fires.

Local ordinances frequently require special fire extinguishing equipment under ventilation filters. Regardless of the type (dry chemical, carbon dioxide, or chemicals in special solutions), this equipment can only be effective if it is professionally designed, installed, and maintained.

Employees should know where all emergency exits are located, and fire drills should be conducted. Contact the local fire department for specific help in designing emergency procedures. Make sure all doors to the property open out and that fire exits are kept clear at all times. Fire department telephone numbers should be located near telephones.

First Aid

Immediately after an accident occurs, first aid is the primary concern. It is very important that someone trained in first aid apply treatment. People without first aid training normally should only undertake common-sense procedures. In case of a serious injury, you should make the person as comfortable as possible (without risking further injury) and call for medical help; in case of a minor injury, give the person whatever aid is necessary from the property's first aid kit, fill out an accident report, and urge the victim to see a physician if that seems appropriate.

Encourage employees to receive first aid training. The American Red Cross provides excellent training throughout the United States. If possible, training should be given to several employees so that it is more likely that someone with first aid training will always be on the premises. An operation should have first aid equipment and supplies on-site in a convenient area. In large operations, particularly those with more than one floor, several first aid kits may be needed.

Display first aid information. Post various types of medical and first aid posters in appropriate places throughout your food service operation.

Choking

Choking because of an obstructed airway is a leading cause of accidental death. If a choking person is not coughing or is unable to speak, that's your cue to perform the Heimlich maneuver immediately. Here are a few steps to help save a choking victim. The Heimlich maneuver is generally considered the best first aid for choking.

Heimlich Maneuver

Step1 Ask the choking person to stand if he or she is sitting.

Step2



Place yourself slightly behind the standing victim.

Step3 Reassure the victim that you know the Heimlich maneuver and are going to help.

Step4



Place your arms around the victim's waist.

Step5



Make a fist with one hand and place your thumb toward the victim, just above his or her belly button.

Step6



Grab your fist with your other hand.

Step7



Deliver five upward squeeze-thrusts into the abdomen.

Step8

Make each squeeze-thrust strong enough to dislodge a foreign body.

Step9

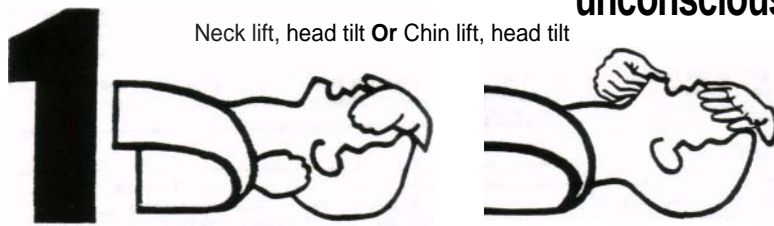
Understand that your thrusts make the diaphragm move air out of the victim's lungs, creating a kind of artificial cough.

Step10

Keep a firm grip on the victim, since he or she can lose consciousness and fall to the ground if the Heimlich maneuver is not effective.

Sample First Aid Poster

Place victim flat on his back on a hard surface. If unconscious,



open airway.

2 If not breathing, begin artificial



breathing.
4 quick full breaths.
If airway is blocked,
try back blows, abdominal or
chest thrusts and finger probe
until airway is open.

3

Check carotid pulse.



4



If pulse absent, begin artificial circulation

Depress sternum 1 & 1/2 to 2"
One Rescuer Two Rescuers
15 compressions 5 compressions
rate 80 per min. rate 60 per min.
2 quick breaths 1 breath

CONTINUE UNINTERRUPTED UNTIL ADVANCED LIFE SUPPORT IS AVAILABLE

Courtesy of the American Heart Association.

CHAPTER 5: Safety Questionnaire / Checklist

Hotel Guest Rooms

Are there safety locks on the door?
Is there a chain?
Is eye viewer set at medium height?
Can the windows be secured from the inside?
Are all electric outlets grounded?
Is hot water set at a safe temperature?
Are the floors slippery?
Does the bath tub or shower have a non slip floor?
Are the rails of the windows or balcony toddler safe?
Is there a smoke alarm?
Is there a fire escape map?
Is there an alarm cord in the bathroom?
Does the telephone work?
Is there a backup light device incase of power down?
Is there a safe for valuables in the room?

Receiving Area

Are floors in safe condition? (Are they free from broken and defective floor boards?
Are they covered with non-skid material?)
Are employees instructed in correct handling methods for various containers, etc., that are received?
Are garbage cans washed daily in hot water?
Are garbage cans always covered?
If garbage disposal area is adjacent to a part of the general receiving area, is there a program that keeps floors and/or dock areas clear of refuse?
Is there a proper rack for holding garbage containers? Are garbage containers on dollies or other wheel units to eliminate lifting by employees?
Are adequate tools available for opening crates, barrels, cartons, etc. (hammer, cutter, cardboard carton opener, and pliers)?
Is crate, carton, and barrel opening done away from open containers of food?

Storage Area

Are shelves adequate to bear weight of items stored? Are employees instructed to store heavy items on lower shelves and lighter materials above?
Is a safe ladder provided for reaching high storage?
Are cartons or other flammable materials stored at least two feet from light bulbs?
Are light bulbs provided with a screen guard?
Is a fire extinguisher located at the door?
Are employees carefully instructed in the use of detergents to prevent agitation of dermatitis, etc.?

Do you have a program for disposition of broken glass or china?

Where controls are in a passageway, are they recessed or guarded to prevent breakage or accidental starting?

Are dish racks in safe condition ("if wooden, free from broken slats and smoothly finished to eliminate splintering; if metal, free of sharp comers that could cause cuts)?

Are these racks kept off the floor to prevent tripping?

Serving Area

Are steam tables cleaned daily and maintained regularly (are gas or electric units checked regularly by a competent serviceperson)?

is safety valve equipment operative?

Are serving counters and tables free of broken parts and wooden or metal slivers and burrs?

Do you have regular inspections of: Glassware? China? Silverware? Plastic equipment?

If anything breaks near the food service area, do you remove all food from service adjacent to breakage?

Are tray rails adequate to prevent trays from slipping or falling off at the end or comers?

Are floors and/or ramps in good condition (covered with nonskid material, free from broken tile and defective floor boards)?

Are these areas mopped at least daily and waxed with nonskid wax when necessary?

Is there effective traffic flow so that customers do not collide while carrying trays or obtaining foods?

Dining Area

Are floors free from broken tile and defective floor boards? Are they covered with nonskid wax?

Are pictures securely fastened to walls?

Are drapes, blinds, or curtains securely fastened?

Are chairs free from splinters, metal burrs, broken or loose parts?

Are floors "policed" for cleaning up spillage and other materials?

Is special attention given to the floor adjacent to water, ice cream, or milk stations?

Are vending machines property grounded?

If customers clear their own trays prior to return to dishwashing area, are the floors kept dean of garbage, dropped silver, and/or broken glass and china? If dishes are removed from dining area on portable racks or bus trucks, are these units in safe operating condition (for example, are all casters working, all shelves firm)?

Soiled Dish Processing Area

Are floors reasonably free of excessive water and spillage?

Are floor boards properly maintained and in safe condition (free from broken slats and worn areas mat cause tripping)?

Are all electrical units property grounded?

Are switches located to permit rapid shutdown in me event of emergency?

Can employees easily reach switches?

Pots and Pans Room or Area:

Are duckboards or floor boards in safe condition (free from broken slats and worn areas which could cause tripping)?

Are employees properly instructed in use of correct amounts of detergent and/or other cleaning agents?

Are adequate rubber gloves provided?

Is there an adequate drain board or other drying area so that employees do not have to pile pots and pans on the floor before and after washing them?

Do drain plugs permit draining without the employee placing hands in hot water?

Walk-In Coolers and Freezers (Refrigerators):

Are floors in the units in good condition and covered with slip-proof material? Are they mopped at least once a week (and whenever spills occur)?

If floor boards are used, are they in safe condition (free of broken slat and worn boards which could cause tripping)?

Are portable and stationary storage racks in safe condition (free from broken or bent shelves and set on solid legs)? Are blower fans properly guarded?

Is there a by-pass device on the door to permit exit if an employee is locked in (or, is there an alarm bell)?

Is adequate aisle space provided?

Are employees properly instructed in placement of hands for movement of portable items to avoid hand injuries?

Are heavy items stored on lower shelves and lighter items on higher shelves?

Is the refrigerant in the refrigerator non toxic? (Check with your refrigerator service manual.)

Kitchen, Food Preparation Area

Is electrical equipment properly grounded?

Is electrical equipment inspected regularly by an electrician?

Are electrical switches located so that they can be reached readily in the event of an emergency?

Are the switches located so that employees do not have to lean on or against metal equipment when reaching for them?

Are floors regularly and adequately maintained (mopped at least daily and waxed with nonskid wax when necessary: are defective floor boards and tiles replaced when necessary)?

Are employees instructed to immediately pick up or clean up all dropped items and spillage?

Are employees properly instructed in the operation of all machines?

Are employees forbidden to use equipment unless specifically trained in its use?

Are machines properly grounded? Don't Overlook:

Lighting - Is it adequate in the

- Receiving Area?
- Storage Area?
- Pots and Pans Area?
- Walk-in Coolers and Freezers?
- Food Preparation Area?

- Cooking Area?
- Serving Area?
- Dining Area?
- Soiled Dish Processing Area?
- Garbage area?

Doors

- Do they open into passageways where they could cause an accident? (List any such locations.)
- Are fire exits clearly marked and passages kept clear of equipment and materials? (List any violations.)

Stairways and Ramps

Are they adequately lit?

Are the angles of ramps set to provide maximum safety?

If stairs are metal, wood, or marble, have abrasive materials been used to provide protection against slips and falls?

Are broken out of the casing or front edge off the steps?

Are clean and securely fastened handrails available?

If there are wide stairs, has a center rail been provided?

Ventilation- is it Adequate in the

- Receiving Area?
- Storage Area?
- Pots and Pans Area?
- Walk-in Coolers and Freezers?
- Food Preparation Area?
- Cooking Area?
- Serving Area?
- Dining Area?
- Soiled Dish Processing Area?

Other Safety Concerns:

- Do employees wear good shoes to protect their feet against injury from articles that are dropped or pushed against their feet?
- Is employee clothing free of parts that could get caught in mixers, cutters, grinders, or other equipment?
- Are fire extinguishers guarded so they will not be knocked from the wall?
- If doors are provided with a lock, is there an emergency bell or a by-pass device mat will permit exit from the room should the door be accidentally locked while an employee is in the room?
- Is there a pusher or tamper provided for use with the grinders?

- Are mixers in safe operating condition?
- Are the mixer beaters properly maintained to avoid injury from broken metal parts and foreign particles in food?

Source: Adapted from
National Safety Council,
Chicago, by American
Hotel and Motel Association

CHAPTER 6: Management's Role

Although all members of the food service staff are members of the operation's sanitation and safety team, the development of sanitation and safety programs really begins with a commitment from management. Managers have the ultimate responsibility for developing, implementing, and monitoring the property's sanitation and safety efforts.

The role of managers includes:

- Incorporating sanitation and safety practices into operating procedures
- Ensuring that sanitation and safety concerns take priority over convenience
- Training employees in sanitary and safe work procedures
- Conducting sanitation and safety inspections
- Completing accident reports, assisting in investigations, and doing whatever is necessary to ensure that problems are quickly corrected.
- When necessary, assisting in treatment and seeking medical assistance for injured employees or guests
- Reporting needed repairs or maintenance, changes in work procedures, or other conditions that are potential problems
- Conducting sanitation and safety meetings
- Urging the active participation of all staff members in solving sanitation and safety problems.

Incident / Accident Reports

In USA, OSHA regulations and state workers' compensation laws require that accidents that occur in the workplace be reported. It will be good practice to fill a report in case of an incident / accident and keep the record. It should be available in case of investigation by the authorities or insurance company. Required information includes: Who was involved / hurt, when, where, and how with details. Also what was the reaction and measures taken to avoid similar happening in the future?

Inspections

Inspections are usually at the heart of management's effort to ensure that sanitation and safety procedures are consistently followed. You can develop inspection forms or checklists that focus attention on equipment, facilities, food handling practices, and/or food service employees. Persons with special knowledge (insurance representatives, state or local fire inspectors, and so on) can help you create these checklists. A sample safety checklist is shown at the end of this chapter.

How often you make sanitation and safety inspections depends, in part, on how well your property measures up during the first inspection. A complete inspection should be made at least monthly. However, if necessary you should also conduct daily inspections of specific work station areas or equipment.

A primary reason to conduct sanitation and safety inspections is to correct potentially dangerous conditions. Corrective measures should be taken promptly! If time must lapse

before a problem is corrected, inform employees of any possible hazards and alert upper management that a problem has been found and steps are being taken to correct it.

After an inspection is completed, inspection forms and checklists should be filed for later reference. Looking back at earlier forms and checklists can give you an indication of the long-range effectiveness of your sanitation and safety programs. Also the forms are evidence of your efforts to maintain a sanitary and safe food and beverage operation.

Important Notes

- 1 This manual provides only a basic overview of sanitation. Readers desiring more detailed information about sanitation are referred to Ronald F. Cichy, *Sanitation Management: Strategies for Success* (East Lansing, Mich.: Educational Institute of the American Hotel & Motel Association, 191 Sanitation
3. Personal hygiene is one of the subjects covered in *Sanitation: Conquering Kitchen Germs* (East Lansing, Mich.: Educational Institute of the American Hotel & Motel Association). Videotape.
4. Details about purchasing procedures are found in William B. Virts, *Purchasing for Hospitality Operations* (East Lansing, Mich.: Educational Institute of the American Hotel & Motel Association, 1987).
5. Safety issues are covered in more detail in Raymond C. Ellis, Jr., and the Security Committee of AH&MA, *Security and Loss Prevention Management* (East Lansing, Mich.: Educational Institute of the American Hotel & Motel Association, 1986).
6. David Wheelhouse, *Managing Human Resources in the Hospitality Industry* (East Lansing, Mich.: Educational Institute of the American Hotel & Motel Association, 1989).
7. Information about accident prevention in this chapter is based on U.S. Department of Agriculture, *Sanitation and Safety Practices for Child Nutrition Programs* (Washington, D.C.), and *Safety Operations Manual* (Chicago: National Restaurant Association, 1981).
Operations Manual (Chicago: National Restaurant Association, 1979), *Safety Operations Manual*
8. Additional Information about kitchen safety by Culinary Institute of America