

CHAPTER SEVEN

KITCHEN OPERATIONS

FOOD PURCHASING

The food industry is one of the most complex businesses in this country. In order to deal effectively with your suppliers, you must be able to specifically indicate what products you intend to purchase.

Before any food is purchased, the menu should be carefully planned--at least two weeks in advance. The chapter that exists from one meal to another will see skyrocketing costs due to impulse buying and also stagnation in the variety of meals served due to lack of planning. Planning menus two weeks in advance prevents the use of the same foods or types of foods (fried, baked, barbecued, etc.) on the same day of each week.

1. Know your markets. Listen to good, sound advice. Read! Use magazines and market reports. Visit the suppliers and get acquainted; personal connections are always helpful. You should know the people you buy from. Deal only with reliable vendors, and be honest yourself. Avoid the telephone when possible. Personal contacts will keep you in touch with the markets and you are less apt to get in a rut. Don't spread your business with too many vendors, but shop around enough to know prices and quality.
2. Watch the trends of the market by keeping up with the crop conditions. Your local daily paper, magazines, trade papers, and magazines, as well as market reports, will help you with this information. Buy when prices are low--when they are in season or plentiful.
3. Familiarize yourself with the techniques of the business. Learn to know the sizes of crates, containers, etc. Find out what the different grades mean, how they vary in price and quality, and why they vary. Learn brands by quality and not by reputation. Know as much about each product as is possible. When you do arrive at a satisfactory quality, SPECIFY it when ordering.
4. Learn how to deal with salespeople. Use your own judgment and don't play favorites. Keep in touch with the salespeople and suppliers. Know market prices. Establish good relations with all the competition. Learn as much as you can from the salespeople themselves. Remember that they are working on commission.
5. Calculate costs to avoid buying things you cannot afford. Know the number of servings per pound so you can determine the cost per serving. Buy sizes best suited for your purposes.

6. Know which items to buy in large quantities, but don't buy more than you can use. When advisable, take advantage of large quantity prices. Plan ahead and purchase in full-case lots. Mark-up on partial cases may exceed 25 percent. Make sure you have adequate storage for large quantities.
7. Visit with other fraternity and sorority house directors as they will give you new ideas and broaden your purchasing options.
8. Keep good cost accounting records. Pay bills promptly to take advantage of discounts.
9. Try to eliminate excessive deliveries. With the price of gasoline and labor, these prove very costly. Ask the vendors if there is a savings if you have only two deliveries per week rather than six.
10. When goods are delivered, check for specifications promised, amounts, weights, and conditions.
11. Properly store all items and make sure that food is used before the expiration date.
12. NEVER gossip or vent in the presence of the sales or delivery people.

CAUSES OF HIGH FOOD COSTS

- You might buy the wrong merchandise at too high a price.
- You might not receive all you bought and paid for.
- You might have excessive spoilage.
- You might use the wrong cooking procedures and have excessive shrinkage or waste.
- You might be serving larger portions than you had originally planned.
- You might have excessive leftovers and not know what to do with them.
- Your prices might be wrong.
- Your employees and members might be eating or taking food without authorization.

WAYS TO CONTROL FOOD COSTS

1. Set up a food cost accounting system. This can be done on a daily or weekly basis. The purpose is to break down the total cost of food into its components (e.g. meats, fish, poultry, dairy products, etc.). This makes it easier to spot trouble when it comes.
2. Establish a more efficient purchasing procedure. Use standard purchase specifications so that the vendors know exactly what to send. Buy on the basis of competitive bids, place your orders in advance, and select the grades or the cuts on the basis of the menu.
3. Be careful about receiving goods. If food is delivered when you are busy, the temptation will be to sign quickly and send the driver on his way. Just as you count your change at a bank teller's window, you must check your food when it is delivered. You must find out what, if anything, was not shipped and you must reject

unsatisfactory merchandise. Meat and other foods purchased by weight must be weighed. If there is a discrepancy, make the adjustment on the invoice right then and there and straighten out the situation with the vendor at a later date. To make this careful checking easier, you may be able to work out mutually convenient delivery hours with your suppliers.

4. Store the food properly. Perishable items should be placed in the refrigerators or freezers immediately. Other items should be placed in proper containers or bins or on storage shelves. Food should not be stored next to the boiler or other sources of extreme temperatures. Food in storage should be locked and the key should be available only to authorized persons. Have all equipment checked periodically. Preventive maintenance eliminates large, excessive, and expensive bills.
5. Issue food systematically. By knowing exactly how much and what kind of food was used in the kitchen each day, you can maintain much better control and can correct wasteful practices in a hurry. This practice will help with more accurate inventories and is an aid in purchasing. You could use a requisition form or just develop a system on scratch paper that will help you and the cook(s) know what has been used.
6. Use standardized food preparation. Recipes should be put on cards or sheets after being tested and approved. Cooks should be told to follow the standardized recipes exactly.
7. Control your production. Some days you will have prepared barely enough food and other days you will have lots of leftovers. Fortunately, you can utilize most leftovers in some fashion the next day or you can freeze the food for use at a later date. Have the cooks keep a record of what they produce, how much they use, and what is left over. You will soon find out that there may be a certain pattern of behavior, so food preparation can be adjusted accordingly.
8. Prevent theft. You may discover that some of your employees and members, while otherwise perfectly honest, will eat your food and perhaps take it home without your permission. Somehow, people just don't think that taking food is a form of theft. The best way to avoid such theft is to establish some clear-cut rules in the beginning and stick to them. For example, one rule might be that no one is allowed to take any food home even if it is left over. Another rule might be that any packages leaving the premises must be personally approved by you.
9. Control your labor cost. While the cost of food is still the largest single element of cost in the sorority or fraternity, labor costs are rapidly catching up. You should know how many full-time people you really need. The smaller your regular staff is, the greater your flexibility in adjusting your payroll to your income. If you need extra help for short periods of time, keep a list of people who are willing to come in for just a few hours for the extra income.

10. Remember your overhead expenses. Lights and stoves/ovens can be turned off when not in use. Kitchen towels can be hung up. Breakage of china can be held down through close supervision. Preventive maintenance can keep down repair costs. Purchasing quality equipment designed for institutional use is another good idea; with proper daily care, this equipment will last a long time.
11. Do a cost analysis of convenience foods. If the cook just has to heat and serve, you may realize a great savings in labor costs.

SAMPLE FORM FOR KEEPING A PURCHASE RECORD
 SAMPLE FORM FOR KEEPING A MONTHLY INVENTORY
 SAMPLE FORM FOR KEEPING A PERPETUAL INVENTORY
 AMOUNT PURCHASED DATE FIRM BRAND COST OF AMOUNT
 PURCHASED
 UNIT
 COST
 GENERAL
 REMARKS
 ARTICLE BRAND SIZE AMOUNT UNIT COST TOTAL COST
 BRAND SIZE AMOUNT AMOUNT
 ISSUED
 RETURN TO
 STORE ROOM
 AMOUNT ON HAND
 AFTER LAST ISSUE
 TOTAL
 COST
 UNIT
 COST
 OF WHOM
 PURCHASED

THE BASICS OF KITCHEN SANITATION

DEFINITION

Sanitation is the promotion of hygiene and the prevention of disease by the maintenance of sanitary conditions.

REFRIGERATOR AND FREEZER STORAGE SHELF LIFE

	Refrigerator	Freezer
Fresh Beef	3 to 6 days	6 to 12 mo.
Fresh Veal, Lamb	3 to 4 days	6 to 9 mo.
Fresh Pork	1 to 2 days	3 to 6 mo.
Ground Beef, Veal, Lamb	1 to 2 days	3 to 4 mo.

Ground Pork	1 to 2 days	1 to 3 mo.
Variety Meats	1 to 2 days	3 to 4 mo.
Chicken, Turkey, Duck	1 to 2 days	6 mo.
Fillet Fish (Lean)	1 to 2 days	4 mo.
Fillet Fish (Fat)	1 to 2 days	3 mo.
Shellfish	1 to 2 days	2 to 4 mo.
Vegetables	4 to 5 days	8 to 10 mo.
Eggs	7 days	
Milk	5 to 7 days after date	

DRY STORAGE OF FOOD

1. The storage area must be free of overhead drains or pipes that may leak on food. It must also be dry and well-lit to accommodate reading of labels and kept clean and cool to prevent spoilage.
2. All foods should be stored six inches off the floor on clean racks, pallets, or shelving. Do not box in the bottom of storage shelves. Leave at least a six-inch opening between the bottom shelf and the floor to facilitate cleaning.
3. Shelf liners are not recommended as they inhibit cleaning, may tear, and provide an area for filth accumulation and insects.
4. Store food promptly upon receipt.
5. Replace all stock. First in, first used.
6. Keep storage facilities clean. Clean up spills immediately.
7. Refuse receipt of - and do not store - any swollen, badly dented, or rusted canned goods, torn or wet packaged foods, thawed frozen food, or poor quality fresh foods.
 1. Never taste canned foods to see if they are spoiled. When in doubt, throw it out. Inspect cans and packages before storing them.
8. Do not overstock on "specials" or foods that may spoil before you can use them.
9. Store pesticides, cleaners, polishers, sanitizers, or other possible contaminants away from food. Store these items in a separate area.
10. Watch for rodent and insect activity.

REFRIGERATED FOOD STORAGE

1. Store foods in shallow containers that will allow rapid cooling.
2. When a food cools to 140°, put it in the refrigerator or freezer. Do not let foods “cool off for a while” in the danger zone.
3. Cover all foods in storage with non-absorbent clean wrap. Cloth towels are generally not acceptable. Date and identify all foods.
4. Stir foods occasionally if they take more than three hours to cool to 40°.
5. Do not store or thaw raw meats or poultry above cooked or prepared food in the refrigerator as they might drip.
6. Check refrigerator temperatures every morning. An ideal temperature for the refrigerator is 36-38°.
7. Keep the refrigerator rack, side walls, and bottom pan and drains clean and unclogged.
8. Don't use foil to cover shelving as it reduces air circulation and cooling rate.
9. Keeping condenser grills clean also saves electricity.
10. Keep the unit in good repair with tight-fitting latches and doors.

THE BASICS OF KITCHEN SANITATION

THAWING FOODS

Do not thaw foods at room temperature or precook foods to thaw them. Plan ahead and avoid hazardous thawing practices. Food may be thawed by one of the following methods:

1. Thaw foods in the refrigerator at a temperature of 40° or below.
2. Frozen foods may be thawed as part of the cooking process when cooking is not to be interrupted.
3. Microwave thawing is acceptable if foods are immediately cooked.
4. Cold, running water (70° or below) may be used. Foods should be placed in a clean container with enough water flow to wash away blood and debris. Cook immediately after thawing.

SAFE FOOD TEMPERATURES

All potentially hazardous foods are required to be held at 40° F or below in refrigerated storage or 140° F or above when being held for hot storage prior to service. These

temperatures are required to prevent rapid multiplication of disease-causing bacteria. Temperatures between 40° and 140° are in the danger zone. The major contributor to food-borne diseases is the failure to get foods out of the danger zone before bacteria begin rapid multiplication and toxin formation.

Do not cook foods too far in advance (for example, do not cook potentially hazardous foods like turkey and dressing or casseroles early in the morning and allow them to remain on the stove or in the oven until reheated for service several hours later). Use a meat thermometer to see that poultry is cooked to 165° internally. Conclude cooking just prior to service or refrigerate foods prepared in advance.

Leftovers have higher bacterial counts than finished cooked foods. If the food is to be reheated, heat to at least 165°.

Potentially hazardous foods include the following: milk and milk products, eggs, meat, poultry, fish, sprouts, soy protein foods (e.g. hamburger helper), sliced melons, tofu, garlic and oil mixtures, cooked/heat-treated foods (e.g. rice, beans, potatoes, etc.).

SERVING FOOD

1. Do not serve foods in the kitchen. Only authorized personnel should be in the kitchen. Others can contaminate foods and preparation surfaces with hands, sneezing and coughing, dirty clothes, and used utensils. Serve all meals in the dining room.
2. Maintain foods at safe temperatures. Use steam tables for hot food and ice trays, etc. for cold foods.
3. Provide tongs, dippers, spoons, or other utensils for handling foods.
4. Protect foods from contamination.
 - a. Serve drinks from closed coolers or dispensers.
 - b. Serve condiments (salad dressing, jelly, peanut butter, etc.) in containers other than the large cans or plastic jars they come in. Contents near the bottom can be contaminated after a few servings.
5. Refrigerate sack lunches until they are picked up. Chicken salad and other types of salad sandwiches are not recommended. If sack lunches are not to be consumed for several hours, potentially hazardous types of foods may be frozen and will thaw by the time of consumption.

THE BUFFET

When serving a meal buffet-style, use common sense and good food handling practices. Be sure each food item has its own serving utensil. Serve food items in shallow (2-3-inch deep) containers and replenish frequently. Keep cold food iced or refrigerated. For hot foods, use hot trays to keep foods hot. Candle warmers are generally ineffective because they do not

produce enough heat to retard bacterial growth. Keep hot food covered as much as possible. When using sterno heating, follow safety procedures. Make sure that a new plate is obtained each time a person goes through the buffet line.

HOW TO BE SAFE AT THE PLATE

At the Store

- Keep packages of raw meat separate from other foods, particularly foods for fresh eating.
- Use plastic bags to keep raw meat, fish, or poultry from dripping on other foods.
- Buy packaged, pre-cooked foods only if packaging is sound (no holes or tears).
- Buy products labeled “keep refrigerated” only if they are stored in a refrigerated case.
- Buy unpackaged deli meats or poultry only if not in contact with other food.
- Buy frozen foods only if they are solidly frozen.
- Report problems with packaging, products, storage, or sanitation to store management; if problems are not corrected, notify health authorities.
- Shop for meat, fish, and poultry last; pack in ice chest if time from store to home will be longer than 1 hour, especially in hot weather. Place inside car, not in trunk.
- Avoid purchasing fresh meat, fish, or poultry from temporary stands.

In Your Refrigerator

- Keep it clean.
- Use a thermometer. Keep refrigerator temperature at 40° or colder.
- Keep raw meat, fish, and poultry separate from other foods. Use plates, plastic bags, or covered containers to keep meat and poultry juices from dripping on other foods or refrigerator surfaces.
- Refrigerate products with “keep refrigerated” labels.
- Regularly clean refrigerator surfaces with hot soapy water.
- If refrigerator fails, keep door closed and hold food at 40° or cook within a few hours.

In Your Freezer

- Maintain temperature at 0° for best quality.
- Use freezer wrap, freezer bags, or aluminum foil over commercial wrap for freezer packages.
- If freezer fails, keep door closed. Re-freeze meat or poultry still containing ice crystals. Find other cold storage within a few hours OR cook and serve the product.

Washing Up

- After handling raw meat, fish, or poultry, touching animals, using bathroom, or changing diapers, wash hands with soap and water for 20 seconds before beginning food preparation.
- Wash hands, counter, equipment, and utensils after handling raw meat, fish, or poultry.
- Wear clean plastic gloves over skin cuts, particularly when handling cooked products.

Before You Cook

- Thaw foods only in the refrigerator, under cold water changed every 30 minutes, or in the microwave (followed by immediate cooking).
- Stuff meats, poultry, and fish just before cooking. Avoid buying fresh, pre-stuffed whole poultry. Buy fully cooked, pre-stuffed whole poultry only if it will be served within 2 hours.
- Don't taste raw or partially cooked meat or poultry—or eggs, fish, or shellfish.
- Marinate raw products in the refrigerator, not on the counter. Do not re-use marinade.
- Don't let juices from raw meat, fish, or poultry come in contact with any other foods, raw or cooked, unless they will be cooked together.

Get Cooking

- Use appropriate microwavable containers for microwave heating. See owner's manual.
- If your microwave has a temperature probe, use it. Cover raw meat or poultry to microwave and check the temperature in at least three spots.

- Use rotating microwave pad or rotate foods manually during microwaving. Let food stand for recommended time before serving.
- Use a meat thermometer to measure safe internal temperature of meat, fish, and poultry more than 2 inches thick (160° or above for meat; 180° or above for poultry).
- For meat or poultry less than 2 inches thick, clear juices and no pink in the center are signs of doneness.
- When using smokers or slow cookers, start with fresh rather than frozen chunks of roasts or large cuts and be sure the recipe includes a liquid. Check internal temperatures in three spots to be sure food reaches 160°.
- When basting grilled meats, brush sauce on cooked surfaces only. Be careful not to contaminate fully cooked meats by reusing leftover marinade or adding sauce with a brush previously used on raw meats.
- Avoid interrupted cooking. Never partially cook products to finish grilling or roasting later.
- Roast meat or poultry in oven temperatures of 325° or above. Avoid cooking without a heat source (i.e. preheating oven, putting in roast, and turning off oven).
- Avoid eating raw cookie dough or tasting any meat, poultry, fish, or egg dish while it is raw or partially cooked.

FOOD HOLDING & SANITATION

Serving It Up Safe

- Serve cooked foods on clean plates with clean utensils. (Never put barbecued meats back on the platter that previously held raw meats.)
- Keep hot foods above 140°.
- In environmental temperatures of 90° or warmer, hold cooked foods no longer than 1 hour before reheating, refrigerating, or freezing. Below 90°, hold no longer than 2 hours.

What to Do with Leftovers

- Remove stuffing before cooling or freezing meat or poultry.
- Refrigerate or freeze cooked leftovers in small, covered, shallow containers within 2 hours after cooking. Leave airspace around containers for quick chilling.

- Cover and reheat leftovers thoroughly before serving (rolling boil for sauces, soups, and gravies).
- Date packages of leftovers and use within a safe period.
- Don't taste leftovers to determine safety.
- If in doubt, throw it out. Discard outdated, unsafe, or questionable leftovers in garbage disposal or in tightly wrapped packages that cannot be consumed by people or animals.

Away from Home

- Carry lunches in an insulated container with a freeze pack or include a frozen juice box or small plastic bottle of frozen water. Keep away from direct sun.
- Pack pre-chilled picnic food in a cooler with ice. Do not use your cooler to chill room-temperature foods.
- Cut into the middle of hamburgers to see if the meat is no longer pink.
- At salad bars and buffets, check for a clean, sanitary appearance of serving containers and make sure cold foods are kept chilled and entrees are steaming hot.

CLEANING & SANITIZING FOOD CONTACT SURFACES

The purpose of cleaning food contact surfaces is to remove soils that contain bacteria and support their growth. Sanitizing is the killing of any residual bacteria left after cleaning by the use of chemical or hot water sanitizers.

Bacteria are transferred from contaminated equipment and utensils to the food being prepared. This process is called cross-contamination and can occur when cooked food that is low in bacterial count is contaminated from an unclean surface such as a cutting board.

Slicers should be cleaned and sanitized after the conclusion of each use or before use after periods of storage. For example, if the slicer is used to prepare a ham in the morning, it should not be left dirty all day and then used to slice beef roast in the afternoon.

Dish-washing by hand requires care. Scrape and flush all dishes and utensils promptly. Change wash water when it becomes dirty, and rinse by immersion in hot, clear water. Sanitize by immersing the dishes, pots, pans, etc. in a water solution containing a minimum of 50 PPM chlorine. Water must be at least 75° and no more than 120°. Items should be submerged for one minute. Air dry—do not towel!

When using a dishwasher, silverware should be pre-soaked in a pan of hot detergent water as soon as it is taken from the table or tray. Be sure to use the right basket for the job, and make sure baskets are free of paper and debris that might restrict water flow. Avoid overcrowding and stacking. The wash cycle water temperature should be 140-160° and the water for the rinse cycle should be 180°.

CLEANING AGENTS

1. Detergents: All detergents contain surfactants, substances that lessen surface tension between the detergent and the soiled surface so that the detergent can penetrate and loosen soil. Most detergents also use alkaline substances to break up soil. Most detergents are used to remove fresh soil from walls, floors, ceilings, and most equipment and utensils. Strong alkaline detergents are used to cut through wax, grease, and aged, baked, or burnt-on soil.
2. Solvent Cleaners: These are often called “de-greasers.” They are alkaline detergents that include a grease-dissolving agent. They work well on grill backsplashes, oven surfaces, and even grease stains on driveways. Solvent cleaners lose strength when diluted and are too costly to be regularly used on large areas.
3. Acid Cleaners: These are used when regular alkaline cleaners do not work. For example, they are used for scaling in dishwashing machines, rust stains in restrooms, and tarnish on copper and brass. They must always be used carefully and according to the manufacturer’s instructions.
4. Abrasive Cleaners: These contain scouring agents that can be rubbed or scrubbed on hard-to-remove soils. These cleaners are often used on floors or baked- and burnt-on soils in pans. Abrasives may make cleaning harder and may scratch surfaces such as Plexiglas, plastic, and stainless steel.

SANITIZING OPTIONS

Sanitizing means reducing the harmful micro-organisms on a surface to safe levels. It is not a substitute for cleaning; food contact surfaces must be cleaned and rinsed before they can be effectively sanitized.

1. Heat Sanitizing: The temperature of food contact surfaces must be 165° to kill microorganisms. Check the temperature of the water and the temperatures of the items you sanitize.
2. Chemical Sanitizing: Chemical sanitizing solutions are widely used because of their effectiveness, reasonable cost, and easy use. These sanitizers are regulated by EPA agencies, which classify them in the same category as pesticides.

THREE COMPARTMENT SINK

(TABLEWARE, UTENSILS, & DETACHABLE EQUIPMENT PARTS)

- Flush, scrape, or soak items before washing
- Wash items in the first sink in detergent solution at least 110° F. Use a brush or cloth to loosen the soil.
- Rinse in the second sink in clear water at 120° F. Remove all traces of food and detergent.
- Sanitize in the third sink by submerging items in hot water 170° for 30 seconds, or a chemical sanitizing solution at least 75° F or follow manufacturer directions.
- Air dry all items.

GARBAGE AND TRASH DISPOSAL

The proper disposal of garbage and trash helps control vermin and insects. Improper disposal and storage of garbage not only increases the population of vermin, but distracts from community aesthetics, increases the expense of collection, and strains relationships with neighbors.

1. Do not allow garbage to accumulate in the kitchen or storeroom.
2. Provide tight-fitting covers for inside and outside containers. Keep containers clean.
3. Flatten cans after cutting out tops and bottoms, and crush cardboard boxes to increase storage capacity.
4. Do not block dumpsters.
5. If dumpsters are over-filled and ground storage is necessary, steps should be taken to prevent scattering of garbage.
6. No objects should stick out over three feet about the dumpster rim.
7. When necessary, call for extra or special collection.

FLOOR CLEANING

1. Sweep first. Start against the walls and under equipment and sweep to the center of the room.
2. Once a week, take a nylon-bristled broom and scrub around wall-floor junctures and table and equipment legs prior to mopping.

3. Use a hot detergent solution for mopping. A dry or damp mop actually works better than a wet mop. Leave as little water on the floor as possible as this reduces film.
4. Empty mop buckets, rinse out the mop and bucket, and hang the mop to air dry. Sanitize mops frequently to freshen them. Many string mop heads can be laundered. A little bleach or pine oil in the mopping detergent can help control odors.

E.COLI BACTERIA

Most strains of the E. Coli bacteria are harmless and live in the intestines of healthy humans and animals. The particular strain that produces a powerful toxin and can cause severe illness is E. Coli O157:H7. It was first identified as a cause of illness in 1982, during an outbreak of severe bloody diarrhea traced to contaminated hamburgers.

Persons who are infected with the bacterium often develop severe diarrhea and painful abdominal cramps, although some persons show few or no symptoms. The illness usually resolves in five to ten days. In some persons, particularly young children and the elderly, the infection can lead to destruction of red blood cells and acute kidney failure. This complication can lead to stroke, seizures, and death. Most persons recover without antibiotics or other specific treatment. Persons with diarrhea alone usually recover completely, although it may be several months before their bowel habits are entirely normal.

Most cases of E. Coli infection come from undercooked ground beef. Contaminated meat looks and smells normal. Beef that is still pink, or has blood-tinged juices, has not been cooked enough to kill E. Coli. The infection can also follow drinking raw, unpasteurized milk or drinking or swimming in sewage-contaminated water. The bacterium can be passed from one person to another if hygiene and hand washing habits are inadequate. This is particularly likely to occur among toddlers who are not fully toilet-trained. Family members and playmates of such children are at high risk of becoming infected.

Prevention Advice

Avoid raw, rare, or undercooked ground beef or hamburger. Make sure that the cooked meat is gray or brown throughout (not pink), that any juices run clear, and that it is hot on the inside.

- If you are served an undercooked hamburger in a restaurant, send it back for further cooking.
- Avoid raw, unpasteurized milk or products made from such milk.
- After shopping, quickly freeze or refrigerate perishable foods.
- Use refrigerated ground meat and patties in 1-2 days; frozen meat and patties in 3-4 months.
- Wash hands, utensils, and work areas with hot soapy water after contact with raw meat and meat patties.

- Never thaw food on the counter or let it sit out of the refrigerator over two hours.
- Serve cooked food with clean plates and utensils.
- Microwave carefully. If your oven is a lower wattage than what is shown in the instructions, you'll need to cook food longer or at a higher setting. Cover and rotate food for even cooking. Let food stand outside the oven after cooking if so directed. The food will finish cooking as it stands.
- When someone develops an E. coli infection, careful hand washing with soap will reduce the risk of spreading it. Frequent supervised hand washing with soap is particularly important if the patient is a young child.
- Treatment of municipal water supplies with adequate levels of chlorine or other effective disinfectants is critical to guard against chance contamination of water when pipes leak or repairs are made.
- The same advice holds while traveling abroad.

Eggs and Egg-rich Foods

Keep eggs clean and cold. Refrigerate them promptly. Leftover egg yolks or whites should be refrigerated in a covered container. Always store foods containing eggs in the refrigerator. Refrigerate hard-cooked eggs after preparation. If you hide hard-cooked eggs for an Easter egg hunt, do not leave them out of the refrigerator longer than 2-3 hours if you plan to eat the eggs. Cook eggs thoroughly until both the yolk and white are firm, not runny, in order to kill any bacteria that may be present. Refrigerate cream, custard, or meringue pies and foods with custard fillings, including cakes, cream puffs, or éclairs. Do not allow them to stand at room temperatures. If you carry foods of this type on summer outings, keep them in a cooler with ice or reusable cold packs until served. Follow the same precaution for salads that contain eggs.

HANDLE THESE FOODS WITH CARE

Hamburger

Ground meat must be handled carefully and cooked until it is light gray in the center. Never serve it raw. Ground meat requires special care because bacteria on the surface are spread throughout the meat during grinding, making it spoil more rapidly than whole meats.

Ham

Know what kind of ham you've bought. Some types need to be cooked; others are fully cooked and can be eaten as they come from the package or can be heated just before serving. Read the label carefully. If you have any doubts, cook the ham. Remember that ham is perishable and should be kept COLD or HOT.

Stuffed meat or poultry

Stuff poultry, meat, or fish just before roasting. Put the stuffing in lightly, without packing, to allow heat to penetrate quickly throughout the stuffing. Make sure the stuffing reaches a temperature of at least 165°. To check the temperature, insert a meat thermometer in the stuffing for about 5 minutes. Cook it longer if necessary. You may prefer to bake the stuffing separately.

Microwave pork or poultry

Extra care must be taken when using a microwave oven to cook pork or poultry. Cooking in a microwave can cause "cold spots," areas that do not reach as high a temperature as other areas. Cold spots result from uneven distribution of microwaves, from uneven distribution of water and fat in pork, and from bones that "shade" other parts from microwaves in poultry. Cook pork and poultry thoroughly. Rotate dishes so that cooking will be even. No pink color should be present in meat or juices after cooking. Let cooked meat stand covered for 15-20 minutes to complete cooking.

Leftovers

Hot perishable foods need to be cooled quickly. Don't cool leftovers on the kitchen counter. Put them straight into the refrigerator or else cool them in a bowl surrounded by ice water and then refrigerate. Divide large meat, macaroni, or potato salads and large bowls of mashed potatoes or dressing into smaller portions. Pour large pots of stew or soup into shallow containers, and then put them into the refrigerator. Do not rely on reheating leftover food to make mishandled food safe. Staph bacteria produce a toxin that is not destroyed by heating!

Frozen Foods

Freezing does not kill the bacteria in food; it simply stops their growth. They continue to multiply after the food is thawed. You may safely re-freeze frozen foods that have thawed if they still contain ice crystals. Thawed ground meat, poultry, or fish that have an off-odor or are off-color should not be refrozen and should not be eaten.

Canned Foods

Commercially canned foods are considered safe because they are processed under carefully controlled conditions. However, if a commercially canned food shows any sign of spoilage (e.g. bulging can ends, leakage, spurting liquid, off-odor, or mold) do not use it. Do not even taste it.

OPENING THE KITCHEN

1. Clean all equipment, floors, walls, and ceilings.
2. Run all refrigerators and freezers for 48 hours prior to storage of food products to check for proper operating temperatures (36-38° for refrigerators and 0° or below for freezers).
3. Inspect other processing equipment for proper operation.
4. Do not have food items delivered before the above items have been completed.
5. Make sure fire extinguishers are properly charged and mounted. Do not forget the exhaust hood fire system; this unit should be inspected and serviced every six months.
6. Require all food handlers to have a valid food handler certificate.
7. Request an inspection from the local licensing authority.

KITCHEN SAFETY CHECKLIST

COMPLIANCE

Health & Safety Checklists (Food Service Facility Inspection Report and Supplement to the HACCP Evaluation)

Employee Hand-Washing Sign

Kitchen Use Warning

Manual Handling

Trays and carts are used to carry armfuls of items.

Trash bins are properly removed.

Deep fryers are self-cleaning.

Oil waste is disposed of properly.

Proper lifting and handling methods are used.

Heat-resistant gloves are used when handling hot utensils and equipment.

Non-slip footwear, preferably with rubber soles, is worn by employees.

Work Environment

The ventilation and/or air conditioning system works well.

Floor cleaning products that remove oil and grease are used.

Spills are cleaned up immediately.

Exits are unobstructed.

Passageways and work areas are uncluttered.

There is adequate lighting.

Towels, curtains, and other flammables are located away from the range.

Clothing with short or close-fitting sleeves is worn while cooking.

Machinery and Tools

Knives are kept sharp.

Knives are stored in racks or knife blocks.

Training is provided for the correct use of knives.

Training is provided for the correct use of machines.

There is a safety guard on slicing machines.

All machinery is maintained regularly.

Heat

Equipment containing hot fat or fluids is covered when not in use.

There are signs to warn of hot equipment.

Training is provided for the safe use of deep fryers and other hot items.

There is protection from splash burns.

Electricity

All electrical appliances have safety switches and are splash-proof or waterproof.

All electrical appliances are UL listed.

There are enough power outlets to avoid use of multi-plug adapters and extension cords.

All electrical equipment is in good condition (no frayed or spliced cords, etc.).

All electrical equipment is tested and maintained regularly.

Training has been provided in electrical safety.

Gas/Fire

All gas equipment is located in a well-ventilated area.

Training has been provided for an emergency drill if there is a fire or gas leak. (In the event of fire or gas leak: fire alarm is activated, building is evacuated, and 911 is called.)

At least one type K (Kitchen) fire extinguisher is located in the kitchen.

Fire extinguisher is mounted near an exit and unobstructed.

Employees and members are trained in the use of fire extinguishers.

The proper fire extinguisher is in place for grease fires.

Training has been provided in fire safety and emergency procedures.

Smoke detectors are not located in kitchens.

All grease-producing appliances are located under kitchen hood.

Hoods, ducts and grease filters are kept free of grease. Commercial cleaning is required on a regular basis; schedule depends on grease accumulation.

Grease filters are in place.

The hood/duct fire suppression system is tested and inspected semi-annually by a fire protection contractor. (Check test date on tag.)

AVOIDING FOOD SAFETY MISTAKES AT THE GAME

1. Wash hands before and after handling food—use pre-packaged towelettes or hand sanitizer if soap and water are not available.
2. Use separate coolers or ice chests for beverages, ready-to-eat foods, and raw foods that will be cooked.
3. Block ice will melt more slowly than cubes and cubes will melt more slowly than crushed ice.
4. Plan the menu with game time in mind. If grilling is on tap for a pre-game lunch, plan post-game snacks (cookies, fruit, veggies and dip, or a snack mix) that don't need cooking.
5. Chill salads and sides (deviled eggs, for example) well before transferring them to an ice chest or cooler. Fill ice chests just before leaving home.
6. Shade ice chest and coolers; cover with a blanket if no shade is available.
7. Use a food thermometer to check cooked temperatures. Foods with temperatures from 40° to 140° can be hazardous. If food is left out for two hours or more, it should be discarded.
8. Don't forget to take serving spoons, a roll of paper towels, and trash bags.
9. Make sure cooking appliances or equipment are shut down and cooling or otherwise stowed appropriately before going to the game to reduce the risk of fire hazards.
10. When picking up chicken or pizza before the game, make it your last stop before the stadium to keep hot foods hot and cold foods cold.

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