



Personal Chef Training 1-2-3 is focused on the business and administrative development aspects of the Personal Chef Service model. We include information on culinary issues as a basic overview, with the understanding that this may be second nature to you already. Even with your existing culinary knowledge, we suggest you review this information.

FOOD SANITATION AND SAFETY

Personal Presentation

As a culinary professional, it is imperative that you present yourself in a professional manner. A clean, neat and well-groomed appearance, paired with work habits to match, will reflect the quality of service you render and the pride you have for yourself and your food. By exercising good grooming and hygiene, along with safe and sanitary work habits, you instill confidence and generate trust for yourself and the service that you provide with your clients. At the same time, you will be providing your clients with a little extra peace of mind knowing you have the knowledge and take the time to ensure that their food is selected and prepared with care and that the meals are as safe and wholesome as humanly possible.

Why Sanitation And Safety?

Working in a clean and safe environment is important because it reduces risks to yourself and your clients. Working in a clean kitchen using sanitary procedures when handling and preparing foods ensures yourself and others of a safe, uncontaminated product with minimal risk of causing illness and disease. Working safely and conscientiously reduces your chances of an accident or a potentially dangerous situation that could lead to harmful consequences.

Conversely, working in an unsafe, unsanitary environment can be hazardous, not only to your health and the health of others, but to your business and reputation as well. Poor sanitation practices can cost you in many ways. Contamination of foods creates spoilage that leads to the loss of product and increased food costs. Contaminated foods that go undetected can end up in your client's freezer and result in foods that taste bad and may be inedible. You also run the risk of making a client very ill.

If any of these occur, you not only have to deal with apologies and explanations to an upset and unhappy client, but you run the risk of losing the client altogether. Some clients may never even let you know that they had encountered food that tasted spoiled or made them ill. They may just stop using your service. If for some reason that word got out or it was reported that you were responsible for producing contaminated food, the effects on your business and reputation would be hard to recover from. If the incident results in a person becoming seriously ill, you could find yourself facing a potential lawsuit. There is no excuse for complacency or neglect. The same goes for safety in the workplace. Unsafe or careless work practices can cause or result in accidents that create injuries, medical expenses and lost jobs or clients.

Understanding Food Contamination

You should be knowledgeable about bacteria and other causes of food-borne illnesses. This is important because you are a chef working with food every day, but more so because you are the last line of defense from contamination prior to clients' consumption. It is important that you understand what bacteria can do and why it is dangerous. You also will need to understand how it moves from product to product and how to restrict or prevent its growth. You should be using all the methods available to you to prevent food contamination and ensure a safe food product.

These are some of the areas you will need to use and understand to work with food properly and safely:

- ◆ Causes and prevention of food-borne illnesses
- ◆ Proper hygiene
- ◆ Purchasing safe foods
- ◆ Proper food holding and handling
- ◆ Proper food cooling and thawing
- ◆ Proper storage methods and techniques
- ◆ Proper cleaning techniques
- ◆ Safe work habits and common kitchen hazards

Health Regulations

Although you may not be overseen by a local Environmental Health Agency (EHA), you should be aware of the rules and regulations that govern food production, sanitation and safety. You can call and request that a copy of the regulations and standards used by your local EHA be mailed to you, or these may be available via the Internet. Even though you may not be under EHA jurisdiction, following the guidelines they have set ensures that you are handling food with the same standards maintained by commercial kitchens, restaurants, etc.

While a personal chef, in most situations, is not required to obtain a safe food handler permit, you are strongly suggested to get this license. The fee is affordable, you will learn the very latest about food safety plus you'll have one more professional industry document to support your claim of being an expert in the field. Money well spent in our opinion.

Understanding Bacteria

Bacteria is all around us. Bacteria is in the food products we buy and in the kitchens where we work. It is not a matter of finding bacteria; bacteria will find us. The trick is to understand bacteria, how it moves and how it grows, and utilize available methods to stop or control it. You must prevent it from becoming dangerous and making it to someone's table.

Bacteria cause most food-borne diseases. You may know many of their names, such as botulism, salmonella and staphylococcus. It is not important that you know what they are called, only that you know how to protect and prevent the contamination of food. There are four major types of bacteria: harmless bacteria; beneficial bacteria; undesirable bacteria; and disease-causing bacteria. The first two are not hazardous so we do not discuss them in this.

Undesirable Bacteria

These are the bacteria responsible for food spoilage. Usually you can detect bacteria by means of a "bad" or "sour" odor, sticky or slimy surfaces and food discoloration. If you have come across food that has become contaminated by these bacteria, the safest action is to discard the item and check for other contaminated items that may have come in contact with the original tainted product. "When in doubt, throw it out." This kitchen philosophy will not only help you sleep at night, but undoubtedly will save you from making someone ill. When someone's well-being is at stake, be sure to play it safe. It is not worth a person's health or your reputation just to try to save a small amount of money.

Disease-causing Bacteria

Disease-causing bacteria are the most common of the food-borne illnesses, and their numbers are growing. Most of these cases are caused by the mishandling and cross-contamination of food by food service workers. With the increased awareness of the *E. coli* problem, the number of those cases have increased. Salmonella cases have increased 40% in the last 10 years and there are 1800 different strains of them and more being discovered every day.

Disease-causing bacteria differ from the undesirable bacteria in that they do not leave a detectable odor or taste in foods. The only way to protect against this type of bacteria is by following the proper rules, procedures and techniques of good hygiene, sanitation, handling, cooling, heating and storage of food products. This is the only way to ensure that you and your customers are kept safe from nature's lurking evils.

Conditions For Bacterial Growth

It is important to understand the conditions favorable to the existence and growth of harmful bacteria. If you recognize situations where bacteria thrive, you should be aware of the need to get food out of danger as soon as possible and do something to slow down or stop the growth of bacteria. It is important to understand that any time you allow a condition to exist, which promotes the growth of deadly bacteria, you also are allowing the bacteria enough time to multiply to dangerous levels.

- ◆ Note: Bacteria, under ideal conditions, double in number, every 15 to 30 minutes. One bacterium could multiply to one million in less than six hours.

Following are the six main requirements for growth needed by bacteria:

Food: Bacteria require some kind of food in order to grow. This will include any food or foods that fit within the parameters of the requirements listed here.

Moisture: Bacteria require water in order to absorb food. Dry foods will not support bacterial growth (except in some rare cases). Foods with a very high salt or sugar content are also relatively safe because these ingredients make the bacteria unable to use the moisture present.

Temperature: Bacteria thrive and grow best at warm temperatures, especially at room temperatures.

Temperatures between 41° F and 140° F (5° C and 60° C) promote the growth of disease-causing bacteria. This temperature range is referred to as the Food “**Danger Zone**.” (The FDA alters these temperatures every few years, but only by a degree or two. The important thing here is to realize the broad range in which the danger zone comprises)

IMPORTANT

Temperature is the component that causes the most problems for food safety. At certain times during the storage, cooking and cooling processes, food goes through the “danger zone” of temperature and bacteria begin to multiply. We can only stress that in all of your procedures, cooking processes and handling methods, you keep this very important idea in mind: **GET FOOD OUT OF THE DANGER ZONE AS QUICKLY AS POSSIBLE!** It is important to make sure you use the quickest, most efficient method available to you to get the food either up to temperature or cooled down to temperature. Any reduction of time a food remains in the “danger zone” is a reduction of bacterial growth and the risks they present.

- ◆ **Acidity or alkalinity:** Disease-producing bacteria like a neutral environment. Foods that are too acid or too alkaline will, generally, not allow bacteria growth.

- ◆ **Air:** Most bacteria require oxygen to grow, and are, therefore, referred to as aerobic.

Note: Some bacteria are anaerobic, which means they can grow only if there is no air present, such as in sealed metal cans. Anaerobic bacteria cause botulism, one of the most dangerous forms of food poisoning.

- ◆ **Time:** Bacteria requires time to adjust to their surroundings before they start growing. This time is called the **lag phase**. If other conditions are good, the lag phase may be as long as one hour. If it weren't for the lag phase, there would be much more food-borne disease than there is. This time delay makes it possible to have foods at room temperature **for very short periods** in order to work on them. As stated before, get foods out of the danger zone as quickly as possible. **The existence of a lag phase is not an invitation to leave food out unnecessarily.**

Note: A good reference concerning safe food handling, controls and temperature ranges can be viewed at:

http://www.fsis.usda.gov/Factsheets/Safe_Food_Handling_Fact_Sheets/index.asp#general

How Bacteria Is Spread

Bacteria cannot move from place to place by themselves; however, they have many methods of travel available to them. You need to be familiar with these methods so you can prevent them from happening. It is so important that, if you do have dangerous bacteria present, you do not let it spread and contaminate other products. If it does spread, that only increases your chances of making someone ill.

You should know that the greatest instance of food-borne diseases comes from what is known as “**cross-contamination**.” This is where harmful bacteria from a contaminated food is transferred to another food product, either directly or through a series of contaminations. This results in the spread of contamination to more and more areas and items, raising the risk of the increasingly dangerous bacteria being consumed. This transfer of bacteria can occur through the use of hands, utensils, knives or cutting boards that are not cleaned and sanitized between uses with another product. The product receiving the contaminate often is overlooked or sometimes served without cooking or killing the bacteria it received.

A good example of this is chopping lettuce on a cutting board that was previously used for cutting raw chicken and was not thereafter properly disinfected. The lettuce picks up the bacteria at room temperature and sometime later, is served.

There are an infinite number of examples of how bacteria can move to food that can provide optimum conditions for bacteria to flourish. These are disasters just waiting to happen.

Bacteria may contaminate other foods by traveling via the following methods.

- ◆ **Hands:** Hands can pick up bacteria from one item and contaminate another by touching it. This is why hand washing is required after completing work on one item before moving on to another.
- ◆ **Coughs and sneezes:** These throw contaminants into the air or onto other surfaces.
- ◆ **Other foods:** Contaminated foods can drip or touch other foods and contaminate them, which in turn go on to contaminate others.
- ◆ **Equipment and utensils:** Equipment and utensils that are used while working with a contaminated product and then used to work with a second product without being properly sanitized first, will contaminate the second product as well.
- ◆ **Air:** Bacteria can become airborne and land on any unsuspecting, uncovered food and contaminate it. This is the main reason that all food is required to be covered at all times, except when being actively prepared.
- ◆ **Water:** Water can pick up contaminants from one product and drip, leak, run or flood onto foods and contaminate them.
- ◆ **Insects:** Insects, especially flies and cockroaches, can crawl or land on contaminated food, pick up small amounts of bacteria and transport them to another item, which in turn also becomes contaminated. It takes only a minuscule amount of bacteria-laden fly saliva to contaminate any food product. Some insects are even more dangerous because they frequent bacteria-laden areas, such as bathrooms and trash cans.

Controlling Bacteria

There are three methods used to control bacteria in food. The first is to prevent the spread of the bacteria. The second is to stop bacterial growth, usually through the use of temperature. The third is to kill them through the use of heat or chemicals.

Prevent Bacteria From Spreading

You already have reviewed many of the major modes of transportation that enable bacteria to move from place to place. If you make an aggressive effort to keep bacteria from finding the means to move from its source, the better the chances are that other areas and foods will not become cross-contaminated.

Stop Bacteria From Growing

Although stopping the growth of bacteria does not rid you of them, it does prevent them from increasing their numbers to the point that they become dangerous to humans. **If you stop the growth of bacteria before they have had ample time to multiply, and never let them return to conditions in which they will start growing again, then you safely have prevented bacteria from becoming a hazard.**

Killing Bacteria

Using heat to kill bacteria: Heating equipment to a temperature of 180° F for 30 seconds will kill bacteria. (Some recommend only 170° F, but 180° F is safer.)

Using chemicals to kill bacteria: Some chemicals and chemical solutions can be used to kill and sanitize equipment and working surfaces. Chlorine bleach is one of the most commonly used.

Other Food Hazards

Another danger that food can bring to the consumer is through contact with viruses. The most common one of these is hepatitis. This can be transferred by eating raw shellfish from contaminated waters or, more often, food contaminated by an infected food worker. This can be avoided by the use of good hygiene and using government inspected seafood that has been harvested from safe waters.

Parasites also are a danger that we face from food. Trichinosis is one of the most recognized. It can be mistaken for the flu, but can last up to a year. A tiny worm that can be imbedded in the muscles causes this. It usually comes from pork products. Cooking foods to the proper temperature, which kills them, can eliminate these and other parasites.

Any infection, toxin or parasite that people ingest has the potential to harm them. It is your job to know not only what they are and how they get into food, but what to do to prevent that from happening. Now that you know how contaminants can get into food, you can keep foods from being exposed to those conditions. You also know how bacteria travel around the kitchen. It is important to avoid providing transportation for the bacteria to move around. You can use your knowledge to combat the spread of germs throughout your kitchen and food. The following sections deal with the rules, methods and steps you can take to eliminate, control or prevent food-borne illnesses from contaminating the meals you produce for your clients.

Personal Hygiene

Bacteria spread by food service workers cause most food-borne diseases. It is important that all of the people who work with food understand the need for a serious commitment to good hygiene and sanitary practices. It only takes one mistake to make people sick. Instances of cross-contamination should be vigilantly prevented.

You should look clean, work clean and stay clean. It is important that you maintain a clean and sanitary work area, along with good hygienic practices used constantly throughout your cooking day.

Rules For Good Hygiene

- ◆ Wash your hands and exposed arms often. By Health Department standards, a good quality hand washing consists of washing your hands with soap, under warm water for 20 seconds, cleaning thoroughly (including under the fingernails). Rinse thoroughly and dry with a clean, dry disposable towel. Health officials even recommend using a small brush for scrubbing under the nails. They also require that the sink be conveniently located to the work area and easy to access. When you are working at someone's home just remember to have soap and clean towels so you can wash your hands frequently.
- ◆ Personal Grooming:
 - Bathe or shower daily.
 - Wear clean and neat uniforms and aprons.
 - Keep hair neat, clean and contained (using a hat or hairnet).
 - Keep beards or mustaches neat and trimmed (or shave).
 - Keep fingernails short and clean (especially under the nails).
- ◆ Do not work with food if you have any communicable disease or infection.
- ◆ Cover your mouth when you sneeze or cough, then wash your hands immediately. Wash your hands after blowing your nose.
- ◆ Keep your hands from unnecessarily touching other parts of your body, especially the face, eyes and hair.
- ◆ Do not eat, drink, smoke or chew gum while working with food. If you need to do any of these things, you should take a short break. Be sure to wash your hands before returning to work.
- ◆ Cover all cuts and sores with sterile bandages.

- ◆ Do not sit on your worktables or work areas.

Purchasing Safe Foods

When purchasing foods for yourself and clients, make sure the food you buy is the safest product available. It is important that you purchase food from reputable vendors. These include chain supermarkets, your local markets and local growers. You want the people you deal with to have been in your community for some time, to have a record of supplying quality goods and to be willing to stand behind their products along with correcting and replacing any problem or inferior products.

When you are shopping you need to inspect each product for freshness, quality and wholesomeness. The food that you buy should be free from damage, dirt, disease, discoloration and age. Whenever applicable, you should buy government-inspected meat, poultry, seafood, dairy and egg products. Because it is up to you to select excellent products, you should be knowledgeable about foods, how to tell what the quality of a product is, and how to recognize signs of an inferior product. Learn everything you can to be a good shopper and you can be assured of a safe, quality product.

Safe Holding Of Foods

After purchasing foods, you can take some extra steps to ensure that the foods you are preparing are safe. Always store perishable foods in the proper refrigeration as soon as possible, especially if you have been out shopping for a while. You will keep your food even safer if you take a cooler to keep fresh meats and produce until you get to your client's house. Wash all fruits and vegetables thoroughly before using them. Rinse off poultry and seafood prior to use to help make them safer. Note: In recent years a theory has surfaced suggesting that rinsing meats can also spread bacteria – water droplets splashing off meat. We suggest the rinse approach, however you can make that decision on your own. Make sure that all your food is wrapped and covered for storage. Make sure that the kitchen you are cooking in is safe. Keep this in mind when selecting clients. Let clients know that you require a clean and sanitary kitchen in which to work, for their safety as well as yours.

Food Handling And Preparation

There are two problems that are of concern when handling and preparing foods. The first is the danger of cross-contamination and the spread of bacteria when touching, moving and preparing foods. The other is that when preparing or working with foods, the food will be exposed to temperatures in the danger zone for a period of time. It is important that you use the following guidelines and any other means that you can to control the exposure of food to unfavorable conditions and minimize the growth and spread of bacteria.

Whenever possible do not handle foods with your hands:

- ◆ Use clean and sanitized utensils such as tongs and spatulas when practical.
- ◆ Use disposable gloves when working with raw meats or mixing ingredients.

Clean and sanitize frequently:

- ◆ Your hands. Washing your hands is still the #1 preventive action you can use to stop the spread of bacteria. This cannot be stressed enough.
- ◆ All equipment, knives, utensils and work surfaces before and after use.
- ◆ All cutting surfaces, especially after working with raw meats, poultry, fish or dairy products and before working with other foods.
- ◆ As you work. Don't save the cleanup for the end of your day. Not only is that approach sloppy and lazy, but it creates a breeding ground for contamination.

Work with food as quickly and safely as possible by:

- ◆ Washing any food that you can to remove contaminants and poisons.

- ◆ Preparing the food you are working with as soon as possible so it can be returned to a temperature-safe environment. Do not bring out more food than you can work on in 30 minutes or less. It is best to only have the item that you are preparing out and leave all others in a safe place.
- ◆ Keeping all foods covered unless you are actively preparing them. If you are going to leave a food unattended for a short length of time, then cover it for that time. A hand towel is not a generally accepted cover, but if it is a clean one, you can use it to cover food for short periods, especially if you just need to stop preparation for a moment.
- ◆ Remembering to use good hygienic practices.
- ◆ Keeping all pets and animals away from areas of food preparation. They can bring in or spread contamination many ways.

Follow the guidelines regarding food preparation listed below:

- ◆ When reusing a soup, sauce or gravy, always bring the product to a temperature of at least 180 to kill any bacteria that could be present.
- ◆ When foods are kept hot, they must maintain a temperature of 140° F (60° C) to prevent the growth of bacteria. This is an FDA standard holding temperature for hot foods. Letting foods remain hot that are not up to this temperature is one of the main causes for food poisoning.
- ◆ When combining ingredients for cold salads, be sure to chill all the ingredients separately before combining them. This ensures that none of the ingredients have a chance to get together with another and start growing bacteria internally in a warm area and rise to dangerous levels before serving.
- ◆ Cook meats, poultry and seafood to at least the minimum recommended internal temperature to ensure safe products. Follow the FDA specifications.

Proper Methods Of Cooling Foods

FDA regulations state that in order to store foods in the refrigerator that have just been prepared or were being held at a temperature above 140° F (60° C) they must be cooled to a temperature of 41° F (5° C) within 4 hours. Regulations also state that the foods must be reduced to a temperature of 70° F (21° C) within the first two hours. As stated before, the longer the food is in the danger zone, the higher the risk of bacterial growth occurring, so it is advisable to get food to 41° F (5° C) as soon as possible.

There are several common methods that can be used individually or in conjunction with each other to cool foods. Below are short descriptions of some of the methods.

- ◆ Ice Baths: Place pots or containers in a larger bowl, tub or sink that is filled with enough ice or cold water to surround the hot container as much as possible. The more surface area covered by the ice water, the quicker the temperature is brought down. As a personal chef, you will find this method is great if you are in a hurry to move on in a procedure or cool food to package.
- ◆ Stirring: Agitation of hot foods with spoons, whips or other kitchen utensils is an easy way to get food to release its heat. Stirring should be used to cool all foods if the product can hold up to it. By stirring foods, you prevent the temperature in the center of the pan or container from creating a hot core. One gallon of stock, taken right off the stove and placed in a refrigerator, takes 10 hours to reach a temperature of 41° F (7° C). You can see that without any circulation or dispersion of the heat in a container, hot food can maintain an unsafe temperature where bacteria can multiply to dangerous levels for a very long period of time. Stirring is the method that personal chefs use the most because they usually are working with smaller quantities that cool much quicker than larger ones in a short, safe period of time.

- ◆ *Rapid-cool containers:* These are plastic bottles with long bat-like handles on the top, filled with water and frozen. Once they are frozen, they can be placed into a liquid or semi-liquid food and used to stir. This is a good method for cooling, but you may need a lot of these frozen cooling sticks, and use for one food item only. Don't use the same cooler in more than one dish. It combines the cooling power of ice and the heat dispersion of agitation. This method is being highly promoted by health officials for use in the restaurant industry because of its ability to prevent foods from holding an unsafe core temperature, which is one of the leading causes of food contamination. The rapid-cool's one drawback is the need to fill and store the container in the freezer while avoiding contaminating it.
- ◆ *Volume reduction:* You can split hot food into several small containers or place the food into large, flat containers. By splitting the food, you reduce the volume, giving you less product to cool, thus making the cooling process easier and faster. If you place the food into large, flat containers, you give the product more surface area to release heat, and reduce the depth of the product, preventing it from creating a center of high core heat. This method is very effective in taking "stove" heat off of a product and is good to use if you are going to transfer the product quickly into a refrigerator. This is an easy way for personal chefs to cool foods quickly based on the quantities they use. This method is especially helpful in cooling once the food is placed in the refrigerator because of the additional surface area it provides.
- ◆ *Cold running water:* You can run cold water over the external surface of hot containers to bring down the temperature of the food inside. This is not the most efficient method to use, but it beats doing nothing. This method works best for taking the initial "stove" heat off a product. As the temperature of the food drops, so does the effectiveness of the water.

Methods Of Thawing Frozen Foods

- ◆ *Refrigerator method:* (recommended) The frozen item to be thawed can be placed in an appropriately sized pan and put in the refrigerator 24 hours prior to use. This method allows a slow thaw and provides a high-quality product.
- ◆ *Same day method:* The frozen item can be placed in a clean and sanitary sink under a constant stream of cold running water. You should not let the sink fill with water or leave the item standing in water. Be sure the drain is not covered or plugged and is functioning properly. This method is not recommended for items that need longer than two hours or are very large single frozen pieces (unless it is an absolute emergency) because, similar to thawing at room temperature, the center remains frozen while the surface temperature is in the danger zone. These products tend to thaw so unevenly that the resulting product is inferior and, in some cases, even flavor-drained and waterlogged.
- ◆ *Quick-method:* This method is discouraged, but can be used in emergencies. The frozen item is placed in the microwave. Select a defrost setting and a time appropriate for the quantity of product to be defrosted (sometimes done by weight). This method should be used only if the item that is to be thawed will be used immediately because the surface temperature reaches the danger zone when defrosting in the microwave. A microwave also can destroy some of the flavor and nutrients of frozen vegetables.

Do not set frozen foods out at room temperature. The surface temperature of the thawing item will be in the danger zone long before the center of the item is thawed. This becomes a golden opportunity for contamination.

Note: as a personal chef you should be using the freshest ingredients available, meaning no frozen meats.

Proper Food Storage

It is important that the food you use is stored safely and properly. This accomplishes a couple of goals. First, it prevents the contamination of foods by using common sense rules to keep foods from being stored in potentially dangerous ways or

areas. It also prevents the growth of bacteria that are already present in foods. Temperature, once again, is the crucial player in the safe storage of perishable foods, as foods are kept cold or hot enough to inhibit or stop bacterial growth.

Dry Storage

Dry storage can be used for foods that are not likely to support bacterial growth in their “dry” state. These are foods such as flour, salt, sugar, grains and cooking oils that you would keep in your pantry box.

Freezer Storage

Keep frozen foods in a freezer that maintains a temperature of 0° F (-18° C) or lower. You can keep foods in a freezer that only cools to just below 32° F (0° C) temporarily, but this is only considered subfreezing and is not an acceptable temperature level for food storage. The closer the temperature of your freezer is to 32° F, the shorter the shelf life. If your freezer approaches 32° F occasionally, caused by either a weak freezing unit or excessive traffic in and out of the unit, then the greater the chance that thawing and refreezing of foods stored there will occur, causing serious deterioration to the product. The lower the freezing temperature, the longer you will maintain a higher quality product. Keep all foods you freeze wrapped tightly, using specially designed freezer bags, wraps, foil or airtight sealed containers. Air and moisture are the two components that can get into food and deteriorate the quality of your products. Products that are not stored properly will develop “freezer burn,” which is caused by the drying out of the product (from the air) along with the formation of ice crystals on the surface (from the moisture). This is usually a sign that the product has not been wrapped or sealed properly, or that it has been in the freezer for a very long time.

Refrigerator Storage

- ◆ Keep all non-frozen perishable foods stored at a temperature between 32° F (0° C) and 41° F (5° C).
- ◆ When placing food in the refrigerator, allow room for cool air to circulate around it. Do not crowd or pack food in a refrigerator.
- ◆ Keep the refrigerator door shut at all times, except to put in or take out items. Every time the door is opened, warm, room temperature air is allowed to enter, which may raise the temperature of the refrigerator and the food inside. Excessive in and out traffic to the refrigerator can potentially cause the temperature of the air and food inside the refrigerator to rise into unsafe levels, putting the food stored there in danger.
- ◆ Keep the shelves and interiors of the refrigerator clean and free from food drips and particles to prevent them from touching or falling into other foods and spreading contamination.
- ◆ Keep all foods covered and in sanitary containers. Food needs to be protected from coming in contact with other contaminants, air and falling or dripping particles or liquid.
- ◆ Store raw foods and cooked foods separately. Cooked foods should be stored above raw foods. This prevents raw juices or particles from falling onto foods that are ready to be served and will not be heated to a temperature sufficient to kill any bacterial contamination.
- ◆ Do not let any foods stored in the refrigerator come in contact with unsanitary surfaces such as the bottoms of storage containers or shelves.
- ◆ Cool hot foods down quickly and as much as possible before placing them in the refrigerator. Do not place too many hot items in the refrigerator at one time or it may raise the temperature of the refrigerator to an unsafe level. Stir any hot foods in the refrigerator occasionally or the center core temperature may not cool the food to a safe level in time.

Cleaning And Disinfecting

Sanitation of surfaces and equipment should be performed as needed using a proper sanitation solution mixed in the correct proportions with water. A variety of products can be used. The most common is chlorine bleach. This usually is

used in a solution for cleaning towels used to clean and disinfect surfaces. A solution of 50 parts per million is recommended. This is approximately one capful to one gallon of water.

Dishwashing

Proper dishwashing methods and procedures should be followed to ensure that food you are preparing is not contaminated by the equipment and utensils used. Situations will vary for individual personal chefs because cooking is done at clients' homes and the facilities available will change. The best thing to do is go to the client's house with all necessary equipment and tools clean and sanitized at the start of your cooking day.

The following dishwashing procedures will help to ensure that your utensils and other equipment are as sanitary as possible:

- ◆ Scrape and pre-rinse. This should be done to keep the wash water as clean as possible and minimize the amount of food particles in it, resulting in a cleaner wash.
- ◆ Wash. Use warm water (110° F-120° F) and a good detergent. Scrub the dishes well using a brush or cleaning pad to remove all traces of food particles, soil and grease. Be sure to clean out areas where food has built up or is trapped.
- ◆ Rinse. Use clean warm water to rinse off detergent residues. Change the rinse water frequently, or run the water constantly using a sink with an overflow.
- ◆ Sanitize. In a commercial kitchen, you must have the facilities to place dishes in water above 170° F for 30 seconds or in an acceptable sanitizing solution for at least 15 seconds.
- ◆ Drain and air dry. Remove the dishes from the sanitizing water with clean hands, letting most of the water drain off, and place them on a clean rack or surface and allow to finish draining and air dry. Do not use towels to dry because they may contaminate the dishes. After cleaning, do not touch any of the food contact surfaces of the cleaned articles.

Follow these methods as best you can with the situation in which you work. If you have a dishwasher available to you, it should be used because dishwashers do a much better job of sanitizing equipment.

SAFETY IN THE WORKPLACE

Working in a kitchen poses hazards, large and small. There are many kinds of accidents that occur in kitchens, but the most common are cuts, burns and falls. The keys to surviving the treacherous environment of a kitchen are understanding, respect and awareness.

Since the work you will be performing is done at another person's home in a relatively unfamiliar environment, it is important that you work carefully and identify potentially dangerous situations to which you may be exposed. This is the easiest way to avoid most accidents. Using common sense and following the general rules given below can protect you and others.

- ◆ Sharp knives are safer than dull ones. A sharp knife cuts cleanly and easily. A dull knife can catch or slip on the product it is cutting, many times causing you to cut yourself. Always use the right knife for the right job. Do not try to chop with a boning knife, or cut through large bones with a paring knife. Doing these types of things limits the control you have with the knife, putting you at risk of slipping or sticking yourself.
- ◆ Always use a cutting board. This allows you to properly cut through a product and still control the knife and the product. Cutting on smooth, metal or uneven surfaces can cause the knife or the product to slip and you may cut yourself. Place a damp towel or non-slip pad underneath your cutting board to ensure that the cutting board itself does not slip. Always secure food firmly on the board with one hand with your fingers placed in a safe manner out of the path of the knife blade, using your fingernails for protection. Be extra careful with food that is round or unstable. You can cut a small flat side on some foods to help keep them from rolling while you are cutting.
- ◆ Pay attention to your knife and your surroundings while you work. When cutting, move the knife in a downward motion away from your body. Avoid cutting anything toward your body. Watch out for others around you. When walking with a knife, keep the knife beside you, point down, edge back and don't swing your arm. When passing a knife to another, hold the knife by the top of the blade and offer the handle (if possible, set the knife down and allow the other person to pick it up). Make sure the other person has a firm grip on the knife before you release it. Clean your knives carefully, keeping the sharp edge away from you and being careful not to run your hands or fingers along the actual edge of the blade, even with a towel or sponge.
- ◆ Never set a knife down on its back leaving the blade straight up. Always store your knives in a safe place such as a sheath or a rack. Never store a knife in a place where it can't be seen and where people reach in with their hands, such as a sink full of water, on a high shelf, or in a drawer. These situations are accidents just waiting to happen. Never try to catch a falling knife. Step back, getting your feet and legs out of the way, and let it fall. Never use knives for anything besides cutting. Do not use them to open bottles or break apart frozen foods. Anytime you use a knife in an uncontrollable manner, especially where the knife can release or break through whatever you are attempting to cut at an unexpected time, you run the risk of hurting yourself or others around you.
- ◆ Broken glass can be a hazard in the kitchen. Avoid breakage by keeping dishes and glassware out of the cooking area. If glass breaks in an area where you have prepared foods or sauces, you will need to throw everything in that area away. Shards of glass can travel far when something breaks and are hard to spot after the breakage. Do not risk serving glass shards to a person. Get rid of anything in which the glass shards could have possibly gotten. Do not put glassware where it can break easily, such as a sink of dishes or around busy work areas. If glass does break, don't pick it up; sweep it up. If glass breaks in a sink, drain the water from the sink before trying to remove the glass. Throw away any chipped or cracked glassware. Do not throw broken glass in the garbage where it can cut you later, rather place it in a sturdy, separate container, that can be disposed of safely.

- ◆ Watch out for all nails, staples and sharp edges that may accompany food packaging such as crates, boxes, cans and bottles. If you see such items, remove them if possible. Also be careful of cutter bars that are used with plastic wraps and aluminum foil, which can cause serious lacerations if mishandled.
- ◆ Be careful with hot pans. Assume that the handles are hot when picking pans up or moving them. Use dry pads or towels to handle hot pans. Do not use wet pads or towels when working with hot equipment because they will conduct the heat, not insulate you from it. Watch out for waves of heat or steam when uncovering hot pans or containers, or opening ovens or steamers. Lift lids away from you when uncovering pans. Stand back for a few seconds when opening oven doors or steamer lids, allowing the initial heat to be released. It is important to protect yourself, especially your hands and face, from these dangerous bursts of heat or steam.
- ◆ Be careful when working around or moving pans that are on the stove. Do not overfill pans so that they become hard to control when moved or carried. Leave enough room at the top of the pot or pan so the food does not spill easily. Keep handles of pans on the stove turned in such a fashion that they will not be bumped by someone passing by or get caught on clothing while you are working. Utensils left in food on the stove can become very hot or can catch on a sleeve and be pulled from the pan. Get help when moving large hot pans of food, or split the product into smaller containers before moving. Always warn people if you are going past or are behind them with hot foods.
- ◆ To protect yourself from hot spills and splatters, wear shirts with long sleeves made of heavy materials. Always wear closed toe, leather shoes to protect your feet. It is preferable to have nonskid soles to prevent burns when frying foods, be sure to dry off the food to release any pockets of moisture before frying to limit the amount of splattering and popping that occurs. Be sure to slowly and carefully place the food in the oil or fat, making sure that the food falls away from you and does not splash. It is helpful to use a pair of tongs or a spoon when frying.
- ◆ Fire is a common hazard when working in a kitchen. Do not panic if a fire occurs. You should know the location of any fire extinguishers where you are working. Keep some baking soda handy to put out any small stove fires that might occur. There are some things that you can do to prevent fires where you work. Keep paper, towels or grease away from heat sources. Make sure your equipment and appliances are clean and free from grease build-up. Do not leave hot grease or oil unattended on the stove. Never put water on a grease fire.
- ◆ Kitchen machinery and equipment can be very dangerous. Make sure you know how to operate equipment before you try to use it. Use all guards and safety devices included with kitchen equipment when operating it. Do not try to touch or remove food, even with a spoon or spatula, while the equipment is running. Unplug any equipment before disassembling or cleaning it. Do not touch electric equipment if your hands are wet or you are standing in water. Make sure you do not have loose clothing, jewelry or anything else on your person that could get caught in machinery while it is operating. Use the device only for its intended purpose.
- ◆ Be careful to prevent falls in the kitchen. Clean up spills and slippery areas immediately. Keep work areas and aisles unobstructed. Don't carry items too big to see over, and never run in the kitchen. Use a small ladder or step stool to get to high shelves or cupboards, not chairs, stacked boxes or buckets.

Knowledge Of Foods

Knowledge about the types and varieties of foods available is critical to the purchase of quality products. A personal chef must have knowledge of each ingredient, how to use it and when it is appropriate to use.

An understanding of meats, poultry, seafood and produce is significant, since these foods compose a major portion of the meals prepared. They also compose a good deal of the cost, therefore, need to be purchased, used and stored wisely.

Meat

An effective personal chef must know the different cuts and characteristics of meat. The content of fat, connective tissue, texture and flavor varies with the cut. The location of the meat on the animal determines the cuts that are produced. It is important to recognize the different cuts you will encounter while shopping.

Poultry

Poultry requires an understanding of the type of fowl, size and age of the bird. It is important to understand the unique qualities of meat that each particular bird brings to the table. This is especially important in selecting the method of preparation.

Seafood

A personal chef also must know the different varieties, textures, flavors and cooking methods of seafood. Texture of the flesh and flavor vary with the species. In selecting the method of preparation, understanding composition and structure of seafood is essential.

Vegetables

A personal chef must know how to select the freshest produce, recognize good quality and anticipate when the best products are typically available. Fruits and vegetables vary greatly. Knowledge of all of the most common types, as well as many unique varieties, is required to be a well-rounded chef. A personal chef must be able to complement recipes with the appropriate fresh fruits and vegetables.

Dry Goods

The products on the shelves, the dry goods, also require knowledge and skill. Dry goods consist of all products that are not commonly refrigerated or considered perishable. A personal chef must know what the best products are, who makes them, where they can be acquired and what the best use for them is. Many of these products have multiple uses and come in a variety of sizes and preparations. It is up to you, the personal chef, to find the best, most consistent product available for your needs. In addition, a chef needs to become familiar with product packaging, the standards of each product's grading, and the supplier and producer of the product.

Knowledge Of Food Quality

Understanding food quality is necessary to be a good shopper and a good personal chef. Quality is an important component affecting any meal.

- ◆ What qualities do we look for to ensure the finest texture, color and flavor?
- ◆ Does the food possess the proper colors and flavors?
- ◆ Is the product fresh? Is the product in season? Has it been ripened properly?
- ◆ Does the product taste its best?

A personal chef must balance quality, quantity and price to fit his/her service as well as his/her budget. **Knowing where to find the best ingredients is instrumental in creating a great product.** There are many facets of shopping that are involved in finding and maintaining the best food.

Find stores you trust. Working with reputable businesses and individuals will ensure that the products you buy were procured with the quality and care you demand.

Find products that are consistent. Using consistent products helps to ensure consistent recipe production and consistent meals to your customers. If clients receive products that meet their standards, they are far more likely to be repeat customers.

Know when fresh foods are in season and at their peak in your area. Planning menus around this knowledge takes full advantage of these foods.

Knowledge Of Cost Factors

Personal chefs must control food costs and manage money well. Food costs directly impact the bottom line. Products must be prepared affordably but without sacrificing quality.

Adaptability and Production Skills

Personal chefs must know how to handle variations and restrictions in different kitchens. In-home operations can vary depending on the size of the kitchen and equipment it contains. A personal chef must adapt effectively to perform the job quickly and efficiently without sacrificing quality. An effective personal chef sets up the kitchen to allow him/her to work closely and quickly with the food. How the client's kitchen is designed will determine how much a personal chef needs to adjust.

Effective Production System and Efficient Procedures

Having a fast and efficient system is important to a successful Personal Chef Service. As a personal chef, it is important to create an efficient production system with organized procedures, not only when you are cooking, but also when unloading and repacking items at the client's home.

A personal chef uses set standards and procedures to ensure consistent products and efficient work. This helps to control your time, and ultimately your costs. If the tasks you do are consistent, you will become more familiar with the procedure, thus, be able to perform the task quickly. A successful personal chef completes tasks in a fast and orderly manner, without having to devote energy deciding how tasks should be done.

Knowledge Of Culinary Tools And Appliances

To be able to prepare foods effectively, you must be familiar with all the equipment and tools used in modern kitchens. A successful personal chef will know how to use many different appliances, including various heating and motorized kitchen devices and tools, as well as how to safely clean and properly sanitize all of this equipment. Proper use of equipment ensures better products and a more efficient use of time.

Food preparation ("prep work" or "mise en place") although sometimes tedious, is done to prepare for cooking, assembling and packaging your clients' meals.

Unless these tasks are done quickly and efficiently, they can drag on endlessly and eventually destroy one's enthusiasm for the recipe, or, for cooking itself. That is why the importance of coordinating your work is stressed. Coordination in the kitchen entails many skills, one of which is food cutting and preparation. This is the backbone of most food production. You need to be proficient at the skills of cutting, cleaning, slicing, dicing and all other methods of food preparation.

Efficient knife work and food prep will make all other phases of recipe preparation go more smoothly, producing the best results. You must practice these skills to become proficient.

Personal chefs should know a variety of cutting techniques. Different shapes and sizes of ingredients affect the look and appeal of food. Chefs learn how different cuts can add to (or take away from) the appeal, flavor and presentation of a dish.

Knowledge Of Cooking Methods And Culinary Arts

After all of your prep work, it is time to do the work that we love to do – cook the food. To do this well, personal chefs have to have all cooking methods at their disposal. By understanding methods, you will know how to "put it all together." This includes an understanding of how to heat the food, develop the flavors, work with sauces and adjust the seasoning. This is when knowledge and skill come together to create the best tasting food.

You should be familiar with all of the different cooking methods, in terms of how each method affects the food. Proper use and selection of cooking methods is very important.

You also must understand ingredient flavors. This understanding allows you to make adjustments where necessary to create a better tasting product, or, a nice variation of an old favorite. Personal chefs must be proficient with the herbs and spices they use so they know if a recipe has been seasoned and flavored correctly. Chefs need to be able to adjust flavors to complete or enhance an item.

In addition, personal chefs are responsible for menus and foods that are economically balanced, nutritious and look appetizing.

Controlling Quality And Customer Satisfaction

Personal chefs must achieve and maintain high standards of food for the people they serve. It is important to constantly check for quality during every phase of the cooking and serving process, especially the final product for which the personal chef is responsible to their client. Personal chefs who exhibit these standards and values will inevitably gain a strong trust and loyalty among their customers.

Experienced personal chefs use their knowledge and skills and have an uncanny understanding of the touch, taste, and smell of foods. By using all senses, personal chefs prepare foods that are “just right.” Blending their knowledge, skills and creative intuition, personal chefs prepare great tasting, highly appealing dishes and menus.

Preparing different types of foods and working with a diverse portfolio of recipes, the personal chef can assimilate many cuisines and styles of cooking. Chefs become advanced through experience and diversity, enabling them to handle a multitude of situations that may occur during the food preparation process.

Everyday Things To Improve Chef Skills And Knowledge

- ◆ Find New Cookbooks or Recipes
- ◆ Read or Browse Culinary Books or Magazines
- ◆ Take Cooking Classes
- ◆ Try New or Different Products
- ◆ Try New Gadgets and Gizmos
- ◆ Watch TV Food Shows
- ◆ Attend Food Shows (watch demos and take literature home)

FOOD & COOKING BASICS

Cooking Time

Cooking time is the time required to heat the food to the desired temperature to produce the desired changes. Cooking times vary from recipe to recipe because there is no consistent way to recreate or document all the variations that control cooking times. A personal chef adjusts and gauges cooking times based on the time recommended, previous experience with the product, the equipment used, and the environment in which the food is prepared.

Cooking time requires consideration of three factors:

- ◆ Temperature
- ◆ Speed of heat transfer
- ◆ Product characteristics

Temperature

Temperature refers to the actual temperature of the air, cooking surface or surrounding liquid that is being applied to the food. Examples of temperature variations are “450° F,” “medium-high heat,” and “simmer.” Calibrations and settings of the heat source also will cause variations in cooking times. All ovens do not cook at the exact same temperature, nor do they all cook with the same evenness.

Interpretations of cooking heat levels will cause cooking times to be different. Burners may heat at different levels from stove to stove. Gas burners vary by BTUs and flame dispersion. Electric burners heat up and adjust slower than gas and are typically harder to control.

Speed Of The Heat Transfer

Heat transfers at different rates through different mediums and equipment based on their heat conductivity. Recall the differences in equipment producing heat by way of convection, conduction and radiation and add to them the effects of mediums, such as fat or water. Heat transfer is often observed when grabbing a hot panhandle with a towel. If the towel is dry, the heat does not travel very quickly. If the towel is wet, the heat travels quickly to your hand and you will not be able to pick up the pan.

Product Characteristics

Size, temperature and the characteristics of the food cause variations in cooking times. Recipes that call for a roast often may list only the type and weight. Frequently, similar cuts of meat must be substituted. However, if the substituted cut is leaner or has more connective tissue, cooking time will vary. Just from exploring cooking times alone, the challenge of preparing food exactly the same, from day to day and kitchen to kitchen, is clear. Personal chefs must understand these factors and be able to adjust them to successfully prepare foods and recipes as they were intended.

Cooking

Cooking is merely “adding heat to invoke a particular change to the food.” But various cooking methods change foods in different ways. How does food change? How do specific food components change and react when cooked? How can methods be controlled to bring out the best flavors, colors and textures in food?

Matching the right foods with the right method lets the personal chef obtain optimum results from his/her recipes. The first step in learning this process is to understand the components of the foods you are preparing.

Food Components

Protein

Protein is a major component of meats, poultry, eggs and dairy products. Meat usually contains the highest amounts of protein. Small amounts of protein also are contained in nuts, beans and grains.

Effects of Adding Heat to Protein (Cooking)

When proteins are heated, they coagulate. This causes the protein to:

- ◆ Shrink
- ◆ Become more firm
- ◆ Lose moisture

Excessive heat causes protein to become tough and dry. Connective tissues are special proteins that exist in meats. They are usually tough, but can be dissolved when cooked slowly. Proper cooking, such as using low heat in a moist environment, can make tough meat tender.

Carbohydrates

Carbohydrates are sugars and starches found in many different foods. Carbohydrates are responsible for two major cooking processes: caramelization and gelatinization

- ◆ Caramelization is responsible for the browning of sugars in foods.
- ◆ Gelatinization is the process by which starches absorb water and swell. Gelatinization is used for almost all thickening of foods.

Fiber

Fiber is found mostly in fruits and vegetables, and is made up of complex substances that give plants structure and firmness. Two elements affect fiber:

- ◆ Sugar makes fiber firmer. For example, apple slices cooked in water will break down and turn to sauce while apples cooked in a heavy sugar solution will tend to remain slices.
- ◆ Baking soda (or alkalis) break down fiber and make it softer, usually very quickly. Alkalis also will cause vitamin loss. Do not use alkalis with vegetables except in special circumstances to restore or brighten vegetables that are dull colored or overcooked.

Fats

Fats are present in meats, poultry, fish, eggs, nuts, whole grains and milk products. Lesser amounts are found in fruits and vegetables. Fats can be either solid or liquid at room temperature. Liquid fats are called oils. The melting points of solid fats vary. When fats are heated, they break down. If heated too hot, fat break down is rapid and the fat may smoke. This temperature is called the smoke point. Stable fats with high smoke points are used for deep-frying.

Water

Water is present in different percentages in almost all foods and cell structures.

Other Components

Other components found in food are minerals (including salt), vitamins, pigment (coloring agents), and flavor elements. All of these elements can be leached out or dissolved away through cooking.

Knowing the components of diverse foods will help you identify which cooking processes will work best in preparing them. You will develop an understanding of why foods “do what they do” when using different methods and techniques. The next section explains these different cooking methods followed by a section that will apply those cooking methods to specific foods. Both sections will be a good review for more experienced chefs and provide beginning personal chefs a foundation for understanding what method to use with which food.

Cooking Methods

There are many factors involved in choosing the best cooking method. Different cooking processes allow the chef to manipulate the appearance, browning, flavor and texture of food.

Dry Heat Cooking Processes

Cooking with a dry heat method is cooking without moisture; using hot air, hot metal, radiation or hot fat. There are two dry heat methods that affect the structure, texture, moisture, flavor and color of various foods differently. Dry heat methods are generally broken down into two categories: with and without fat.

- ◆ Dry heat methods without fat include: broiling, roasting (baking), grilling, griddling and pan-broiling.
- ◆ Dry heat methods with fat include: sautéing and deep-frying.

Dry Heat Cooking Methods Without Fat

These dry heat methods are completed in ovens, convection ovens, microwaves, broilers, grills, griddles and pans. Dry heat methods that do not use fat are generally prepared in a gas or electric oven that comes equipped with a broiling unit.

When cooking in a conventional oven, be aware of uneven temperatures that can occur. Some ovens can be hotter in the back because of heat loss at the door. Some ovens are not as well insulated as others and will constantly lose heat in different areas. Repositioning the food occasionally can alleviate some of the temperature discrepancies.

Broiling

Broiling uses high heat radiated from above (infrared radiation). It generally is used for tender meats, poultry, fish and occasionally some vegetables. Broiling is done with the heat or power at its highest setting. (Preheat a broiler before using so the food can sear quickly.)

Moving the food either closer to or further from the heat source controls the intensity of the heat. Foods can be oiled lightly to help prevent sticking. Foods generally are turned only once during broiling. This will help ensure a nice even cooking and develop a good color.

Grilling

Grilling is done over an open grid or rack. The heat can be from any one of many sources, such as gas, electric, charcoal or wood. Moving the food to different areas of heat intensity on the grill surface controls the temperature. Like broiling, the food is placed on the grill and turned only once or twice to get the proper grill markings and even cooking.

Griddling

Griddling is the same as grilling except that the cooking surface is solid. In many cases the temperature is adjustable. A small amount of fat may be used to prevent sticking. The temperature of a griddle is usually much lower than that of a grill. Besides meats, items such as eggs and pancakes are cooked on griddles.

Barbecuing

Barbecuing is cooking that is done in an oven or on a grill with hard woods or coals. Today, wood burning ovens and specially designed smoke ovens, called smokers, are specialty dry heat fixtures.

Pan-broiling

Pan-broiling is griddling that is done in a sauté pan or skillet. This is done uncovered, so the food does not steam, and without oil (except to prevent sticking).

Roasting

Roasting is the term generally used for cooking meats, poultry and sometimes vegetables. Baking usually applies to breads and pastries, vegetables and fish. In many cases the terms are interchangeable except when dealing with breads and pastries.

Roasting is done uncovered, so as not to change the process to steaming or braising. When roasting meats, the food is placed on a rack so the fats can drip away and the product is not sitting and simmering in its fat. This also allows the hot air to circulate around the food and cook more evenly.

Baking

Baking is the primary method used for cooking foods such as cakes, breads and cookies. Ovens are preheated to a specific temperature when baking. It is important to place food in the center of the oven to allow the heat to circulate freely and evenly around the food.

Dry Heat Cooking Methods Using Fat

There are three major dry heat fat methods: sautéing, pan-frying and deep-frying. The main difference between each method is the amount of fat used.

Sauté

Sauté means to cook in a small amount of fat. The term sauté is French meaning “to jump.” This refers to the tossing action used when cooking small pieces of food in a pan, although larger pieces of food are not actually tossed in the pan.

Pan-frying

Pan-frying differs from sautéing in that it uses more oil, and a lower cooking temperature, and is usually used to cook larger pieces of food. The amount of oil used varies according to the size of the food being prepared. Foods must be turned at least once for even cooking. Some foods may need to be finished in the oven because of their size or to prevent excessive browning.

Deep-frying

Deep-frying is cooking food by immersing it in hot fat. Food that is properly deep-fried should have the following characteristics:

- ◆ The food should have absorbed a minimal amount of fat and lost a minimum amount of moisture.
- ◆ The food should have a crisp surface or coating and have a nice golden color.
- ◆ The fat used should not contribute any bad or less desirable flavors.

Many foods use breading and batter to protect the food from the oil and add crispness, color and flavor.

Moist Heat Cooking Processes

Moist heat cooking uses heat conducted by water or steam (including stocks and sauces). This method includes: steaming, boiling, simmering and poaching. The temperature of the liquid used is the difference between the methods.

Steaming

To cook foods by steaming is to cook foods by exposing them directly to steam. This can be done by placing food on a rack above boiling water, or in specially designed steam cookers. Steaming also can be done using a tightly sealed pan so food cooks in steam created by the food’s own moisture. Steam is the same temperature as boiling water but carries more heat. It is widely used for cooking because it cooks products quickly without agitation and minimizes the leaching of minerals and nutrients.

Boiling

Boiling is cooking in a liquid that is bubbling rapidly and is greatly agitated. Boiling occurs at 212° F at sea level. The water creates steam to give off additional heat so the water cannot get any hotter than the boiling point. The more heat you add, the more it boils.

Simmering

Simmering is cooking in a liquid that is bubbling very gently. The temperature is usually 185° F - 205° F. Most foods that are cooked in a liquid are simmered. Simmering foods slowly keeps the product(s) moist, while preventing the proteins from shrinking and toughening too quickly. It also breaks down connective tissues.

Poaching

Poaching is cooking in a liquid that is hot but not actually bubbling or simmering. It is closer to steeping than simmering and usually just enough water is used to cover the food. Some very small bubbles may appear in the pan. Poaching is used for delicate foods, such as eggs and fish. It is also used to partially cook some meats and other foods, to finish foods or to remove certain flavors.

Blanching

Blanching is a method used to precook foods. It is often used for vegetables to reduce the cooking time, to prevent overcooking when added to a dish or to ensure the proper texture. The product is boiled, simmered or poached until it just about reaches the desired completion. Then it is removed from the liquid and quickly cooled to stop the cooking process. This can be done with hot fat cooking methods also.



Summary

You know how to cook. Even if you don't know some of the official terms for a process, you know the process and the results desired. Do review your digital resources for expanded information on meats, poultry, seafood and vegetables – even if it is repeat information, it is still good information. You'll also find a chart concerning beef, the cuts, the names and properties.

Food storage and handling is critical at every step. From the moment you select a food product at the store until you've put away the last prepared meal into the refrigerator or freezer, make certain you've taken every precaution to ensure safety and quality of that product. Actual storage of the meals will be discussed in the next section, but regardless of the meal container selected, meals still need to be handled right and cooled promptly to avoid potentially terrible results.

Safety in your workspace is important and sometimes taken for granted. You are in new surroundings. Even a repeat client may have a small change between services that affects you. You are not in a position to get hurt during a service (or in your own kitchen for that matter). Be vigilant and employ safe practices and habits to absolutely minimize any potential harm to you, or others. Sharp knives are both a blessing and a curse. A sharp knife can work wonders and make your efforts almost effortless, but they are also unforgiving and can be a real spoiler in an instant if you or someone gets cut. Sharp knives and properly working equipment are always your best bet. Try not to “get by” when you know you should take actions to correct a situation.

Note: Pressure cookers and cooking can truly expedite your efforts with certain recipes. Refer to your digital resources for a special section on Pressure Cookers and the benefits they offer.

Note: Specialized and restrictive diets can be tricky. Examine ideas and examples in the digital resource data.