

Dry Cooking Techniques

OBJECTIVES

After reading this section, you will be able to:

- Demonstrate dry cooking techniques.
- Demonstrate different methods of frying foods.

DRY cooking techniques include baking, roasting, sautéing, stir-frying, pan-frying, deep-frying, grilling, and broiling. Don't let the word "dry" fool you. It is called the dry cooking technique because no moisture is used in the cooking process. Any moisture that comes from the food evaporates into the air. Some dry cooking techniques use oil and fat to transfer heat. Others use metal and radiation of hot air to create the necessary heat. This section will introduce you to dry cooking techniques.



KEY TERMS

- carryover cooking
- seared
- open-spit roast
- sautéing
- stir-frying
- dredging
- breading
- batter
- pan-fry
- deep-fried
- recovery time
- broiling

BAKING

Baking is a very popular dry cooking technique. Bread and chicken are foods that are commonly baked. Fish, vegetables, fruits, and pastry items can be prepared using this method.

To bake, you use dry heat in a closed environment, usually an oven. No fat or liquid is used. Any moisture that is created in the form of steam evaporates into the air because the food is cooked uncovered.

A large food product will continue to cook for 5–15 minutes after you remove it from the oven. This is called **carryover cooking**, or the cooking that takes place after you remove something from the heat source, which happens because the outside of the food is hotter than the inside of the food. This effect continues until the heat throughout the food becomes stable. It can add 5°F–15°F to the final temperature. There is no way to stop the carryover cooking that occurs in dry heat cooking. Just keep this in mind when you take something out of the oven. See Fig. 15-4.

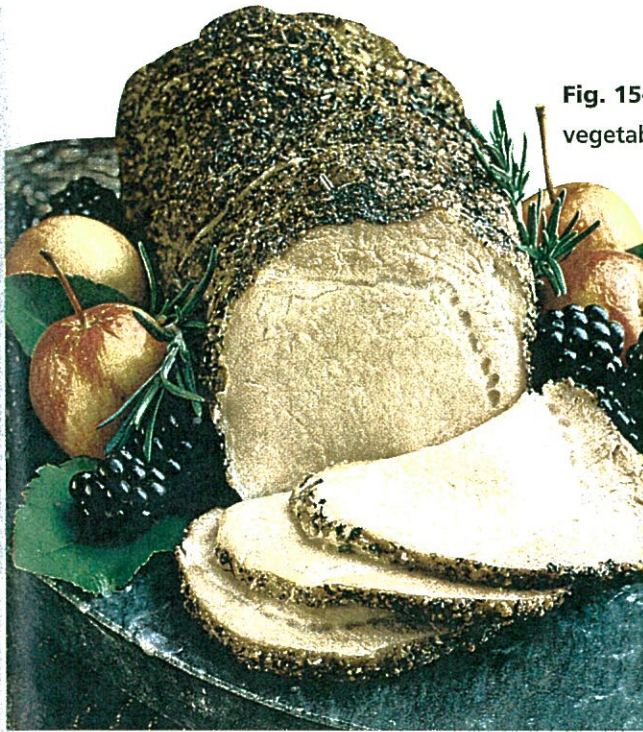


Fig. 15-4. Roasting adds a rich flavor to meats and vegetables. **What other foods could be roasted?**

ROASTING

Like baking, roasting also uses dry heat in a closed environment. Foods commonly roasted include meat and poultry. These foods are placed on top of a rack that is inside a pan. This allows air to circulate all the way around the food. In general, roasting involves longer cooking times than baking. Carryover cooking also applies to roasting. Remove roasted foods from the oven just before they reach the desired doneness. Remember to use a thermometer to check the internal temperature. The remaining heat will complete the cooking process.

Roasting also differs from baking in that sometimes the outside of the food product is **seared**, or quickly browned, at the start of the cooking process. Searing locks in a food's juices, caramelizes flavors, adds color, and makes the food more tender. It also builds "body" in juice drippings that can be used to make sauces. Searing can be done two different ways, in a pan on the rangetop or in the oven.

When searing on the rangetop, place the food, such as a pork roast, in a pan that contains a small amount of heated oil. Brown the meat on one side

and then turn the meat until all surfaces are browned. Place the pan in a hot oven to finish the cooking process.

When searing in the oven, place the food, such as a roast, in a pan in a 450°F–475°F oven. Cook for about 15–20 minutes, or until the outside begins to turn golden brown. Then reduce the heat to 325°F–350°F to finish the cooking process. Some meats should be basted during the cooking process to avoid dryness. Basting involves moistening foods with melted fats, pan drippings, or another liquid during the cooking time.

Open-Spit Roasting

Many cooks prefer to roast food over an open fire. This is called open-spit roasting. To **open-spit roast**, place the food, usually meat such as pork, on a metal rod or a long skewer, and slowly turn it over the heat source. Place a drip pan under the food to catch its juices. Check the internal temperature with a thermometer before removing food from the oven. Remember that the food will continue to cook 5–15 minutes after you remove it from the heat source.

SAUTÉING & STIR-FRYING

Sautéing (saw-TAY-ing) is a quick, dry cooking technique that uses a small amount of fat or oil in a shallow pan. Sautéing is generally used with delicate foods that cook relatively quickly. These foods include fish fillets, scallops, tender cuts of meat, vegetables, and fruit. Most sautéed foods are served with a sauce. See Fig. 15-5.

During sautéing, you'll want to seal the surface of the food. To do this, preheat a pan on high heat, then add fat or oil. When the fat or oil is heated and nearly smoking, add the food. Do not over-

a LINK to the Past

Cooking Through Time

Cave drawings dating back to the Stone Age show that prehistoric life centered around the gathering and preparation of food. When prehistoric people were hungry for cooked meat, they had no choice but to broil or roast their food on small open fires. As civilization evolved, people used clay pots to bake food on top of hot ashes.

During the Middle Ages, the cauldron was the main cooking pot in the kitchen. It was hung from a metal arm over hot coals. Stews or soups would cook in the pot while meat was broiled or roasted on a spit.

In the 17th- and 18th-century, people cooked their food over fire in kettles or on spits. Built-in ovens could be found on many fireplaces, allowing people to roast meat and bake bread.

The 19th and 20th centuries brought wood, coal, gas, and, finally, electric stoves. However, some of the practices that were used thousands of years ago—such as grilling meat on an open fire—are still in use today.

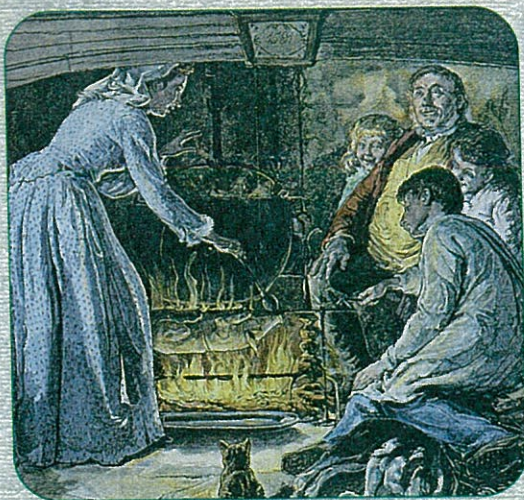


Fig. 15-5. When sautéing, food is cooked in a small amount of fat or oil. **What types of food can be sautéed?**

crowd the pan. Doing so will lower the temperature and cause the food to simmer. After the food is sealed, lower the temperature so the food cooks evenly. Foods may need to be turned occasionally.

A dry cooking technique similar to sautéing, called **stir-frying**, uses a wok, a large pan with sloping sides. Stir-fried foods require less cooking time than sautéed foods. Vegetables and tender, boneless meats are often stir-fried. To stir-fry, place a wok over high heat, add a small amount of fat, and then add small pieces of food. Because of the wok's size and shape, it's important to constantly stir the food as it cooks.

FRYING

It's hard for most people to resist crispy foods, such as fried chicken and French fries. Foods like these are prepared using a dry-heat cooking technique called frying, in which foods are cooked in hot fat or oil.

During frying, the outside of the food becomes sealed when it comes in contact with the hot oil. The natural moisture in the food turns to steam, which bubbles up to the surface.

Foods can be dredged, breaded, or battered before frying.

- **Dredging.** One way to prepare foods for frying is to dredge them. **Dredging** means to coat foods with flour or finely ground crumbs.

- **Breading.** Another way to add texture and flavor to fried foods is to add a **breading**, or coating made of eggs and crumbs. Fig. 15-6 shows the breading process.

- **Batter.** Another tasty way to prepare fried foods is to batter them before frying to add texture and flavor. **Batter** is a semiliquid mixture that contains ingredients such as flour, milk, eggs, and seasonings. Dip the food into the batter right before frying.

Tips to Follow After Frying

After food has been fried, remove it from the oil and drain it well on an absorbent surface such as paper towels. You can also add seasoning at this time. Fried foods are best served and eaten immediately. If you can't serve the food right away, it can be stored under a heat lamp.

✕ PAN-FRYING

One way to fry food is pan-frying. To **pan-fry**, heat a moderate amount of fat in a pan before adding food. Use enough fat to cover about one-half to three-quarters of the food. The fat should not be so hot that it smokes. Instead, it should be hot enough to sizzle when food is added, usually 350°F–375°F. Because it's not completely covered, you'll need to turn the food after one side is done to allow for even cooking. Foods that are often pan-fried include chicken, potatoes, fish, and pork chops.

CULINARY TIP

PAN-FRYING—Chill cuts of meat before pan-frying so they will brown before the inside finishes cooking.

Fig. 15-6.



1. Dredge the food product in seasoned, dry flour by dipping it into the flour and coating it evenly on all surfaces. Shake off any excess flour.



2. Immediately dip the food into an egg wash—a mixture of beaten eggs and a liquid such as milk or water—or other liquid. Coat the food completely. Shake off any excess.



3. Quickly place the food into a container of dry crumbs and coat evenly. Crumbs can be made from bread, ground nuts, cereal, crackers, or shredded coconut.



Fig. 15-7. Storing fried foods in a single layer helps keep them crispy.

DEEP-FRYING

Another way to fry foods is deep-frying. **Deep-fried** foods are cooked completely submerged in heated fat or oil at temperatures between 350°F and 375°F. Fried foods must be cooked until they are done on the inside. Temperature and timing on deep-fat fryers help you determine doneness. Fried foods will be a golden brown. Remove them and briefly hold them so the excess fat can drip off. See Fig. 15-7.

The most popular types of deep-fried foods are potatoes, onions, fish, and poultry. Many foodservice operations choose to purchase foods that are already breaded and ready to be deep-fried. In the foodservice industry, commercial fryers with fry baskets are commonly used. Commercial fryers have several advantages:

- There is less **recovery time**, or the time it takes for the fat or oil to return to the preset temperature after food has been submerged.
- The life of the fat or oil is maximized if correct temperatures are used.

Fig. 15-8. Cooking on a griddle is a very popular way to prepare breakfast foods. **Name several other foods that can be cooked on a griddle.**

GRILLING

Many commercial kitchens use gas, electric, charcoal, or wood-fired grills. Grilling is often used for tender foods that cook relatively quickly. To grill foods properly, you must first preheat the grill. Depending on the type of food you wish to grill, brush the food lightly with oil, and then place it on the grill. Don't move the food after you place it initially. This will help create the distinctive crosshatch markings of a grilled food product.

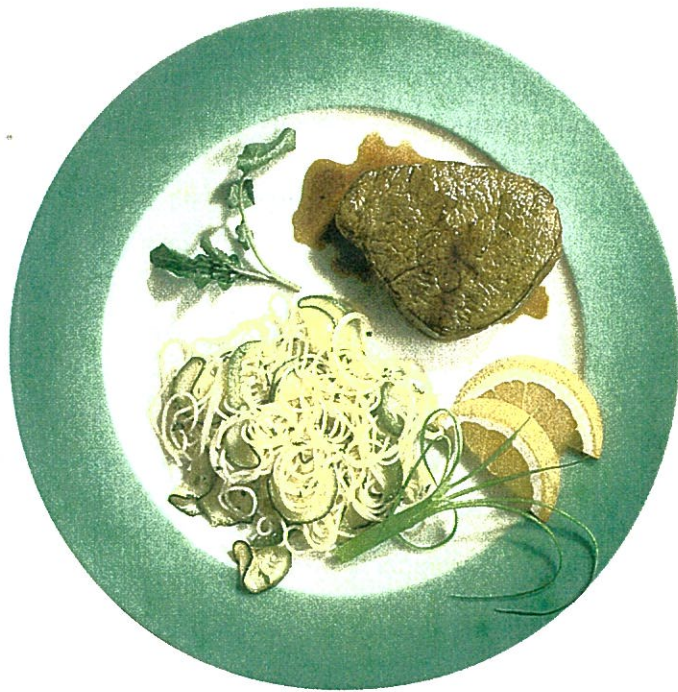
■ **Using a griddle.** Grilling can also be done on a griddle. A griddle is a flat, solid plate of metal with a gas or electric heat source. Griddles are commonly used to make sandwiches such as grilled cheese and breakfast items such as pancakes and eggs. Depending on the type of food being cooked, you may want to add a little fat to the griddle to keep the food from sticking. The temperature of a griddle is about 350°F. See Fig. 15-8.



Food can also be grilled on a grooved griddle. This type of griddle has raised ridges. Although grooved griddles are similar in design to grills, they don't generate as much smoke as a grill. That's why food cooked on a griddle won't have the same smoky flavor as food cooked on a grill.

BROILING

Broiling means to cook food directly under a primary heat source. When you're broiling, the temperature is controlled by how close the food is to the heat source. Thicker foods should be placed



CULINARY TIP

SEASONINGS—Some cooks add seasonings to the meat before broiling. However, do not add salt before broiling because it draws out juices, and can dry out the meat.

farther from the heat source, and thinner foods should be placed closer to the heat source. This ensures that the inside and outside of the food will cook at the same rate.

Foods that are commonly broiled include meats and poultry. Unlike a grill, broilers are heated only by gas or electricity, so additional flavors cannot be added to the food by burning charcoal or wood. See Fig. 15-9.

Fig. 15-9. Broiled foods are popular with many customers. Why do you think broiled foods are so appealing?

SECTION 15-2

Knowledge Check

1. Contrast roasting, baking, grilling, and broiling.
2. How do stir-frying and sautéing differ?
3. Describe different methods of frying.

MINI LAB

In teams, prepare a meal that includes three foods that are prepared with different dry cooking techniques. Have another team evaluate your meal. Explain how each item was prepared.