

Combination Cooking Methods

USING MORE than one cooking method to cook foods is common. Some foods require multiple methods for a tender result. Meanwhile, others benefit from the rich flavors, colors, and textures provided by using a combination of techniques. Other food creations only exist because of the imaginative use of multiple cooking methods. Let's look at the basics of combination cooking and some of the endless variations.



Objective:



Define combination cooking, and identify foods commonly prepared using a combination method.

Key Terms:



blanching

braising

broasting

combination cooking

curing

dry-heat cooking

moist-heat cooking

sear

simmer

stewing

stock

Understanding Combination Cooking

Combination cooking is a method that involves preparing a product using two or more processes: usually one moist-heat method and one dry-heat method (although one may combine two dry or two wet methods). Generally, the methods used in combination provide different values and/or benefits to the final product that one cooking method alone cannot provide.

Moist-heat cooking is a method that always includes the addition of moisture (e.g., water, broth, or wine) during the cooking process. Examples of moist-heat methods are steaming, boiling, blanching, and poaching. In contrast, **dry-heat cooking** is a method that adds

no liquid during the cooking process. Examples of dry-heat methods are broiling, grilling, roasting, baking, sautéing, and frying.

COMMON COMBINATIONS

The two most commonly joined methods of dry- and moist-heat cooking are searing and simmering. These two methods create the two classic styles of combination cooking: braising and stewing. Both methods begin with a tough cut of meat and, after careful prolonged cooking, create a tender dish.

Braising

Braising (from the French braiser—a pan) is a combination of searing and baking (or simmering). Typically, a large whole cut of meat, such as a roast, is selected for braising. Historically, each kitchen had a braiser pan: a pan with a sunken lid to hold “live” charcoal so the meat was cooked from above and from below. Braised meat is usually placed on a bed of chopped aromatic vegetables and herbs. Bacon may be added to provide a cured or smoky flavor.

Stewing

Stewing is a classic French method of slow cooking with moisture under low heat in the oven or on the stovetop. It is not to be confused with boiling. Stewing is nearly identical to braising, except the meat is typically cut into smaller, even bite-size pieces. Also, the ratio of liquid to meat is higher: ½ pint liquid to 1 pound meat.

Sear

To **sear** is to briefly cook the food over high heat until the surface is browned. This seals the food product’s surface and adds color and flavor to the dish.

Simmer

To **simmer** is to cook food in liquid or sauce at a temperature just below the boiling point, about 180°F, so the surface of the liquid barely ripples. Simmering is not a classic cooking method per se, but the technique is to cover the food in a flavorful liquid (e.g., wine or stock) and slowly cook the food in a covered pan or crock at low heat until the food is tender. Simmering may be done in the oven or on the



FIGURE 2. The beautiful brown, almost crusty surface of the steaks is due to searing. Searing is cooking over intensely high heat to brown and flavor the food.

stovetop. **Stock** is a flavorful broth made by simmering bones, vegetables, and herbs together for hours. Stock or wine is generally the preferred liquid for a stew, rather than water, because stock and wine add flavor and dimension to the dish.

COMMON FOODS THAT USE COMBINATION COOKING

Certain cuts of meat are commonly used for combination cooking because they are tough and require more than one method to make them tender.

Braising and Stewing

Braising and stewing is the most common combination cooking methods. They both generally use tough cuts of meat that are tenderized by a dual-cooking method. Searing seals, browns, and adds flavor to the meat. The slow and moist simmering process breaks down the meat's connective tissues (that makes it tough), leaving a flavorful and tender dish.

Meats used for braising and stewing include:

- ◆ Chuck roasts are used for Swiss steak and pot roast.
- ◆ Beef brisket (a tough, stringy meat) is used as a tender, rich, and flavorful beef for slicing (e.g., corned beef and New England boiled dinner).
- ◆ Pork butt roast (a tough and somewhat fatty cut of pork with an odd-shaped bone) is perfect for “pulled pork” sandwiches. The pork butt roast is braised to allow for easy removal of the bone. Then the meat is shredded.
- ◆ Ribs and rib tips are commonly cooked with a reverse combination method. The meats are usually simmered, slow baked, or roasted with liquid in the pan first and then are seared on the grill after they are tender.
- ◆ Stewing hens (older chickens) are often seared and then simmered or roasted for hours in a flavorful liquid. These older, tougher birds become tender and flavorful during this long cooking process.



FIGURE 3. Classic pot roast is usually prepared by braising a chuck roast. In this image, the slow cooking is accomplished in an electric crock pot.

Blanching

Blanching is plunging meats or vegetables into boiling water for a short time (1 to 3 minutes), removing them from the boiling water, and immediately plunging them directly into

ice-cold water to stop the cooking process. With meat, blanching serves to firm the flesh and allow the meat to be larded. It preserves the whiteness of some types of meat (e.g., chicken, rabbit, and sweetbreads). Vegetables are often blanched before cooking by a second method. Blanching vegetables serves to lock in and enhance the bright color. When vegetables are blanched, the amount of time required for cooking to order—sautéing, roasting, and baking—is shortened.

Blanching allows the skin of vegetables and fruits (e.g., tomatoes, peaches, and peppers) to be peeled easily without damaging the food. It also brings out vibrant colors of vegetables and sets those colors before freezing (i.e., green beans are greener). Blanching does not have to be done in water. For example, potatoes to be fried (e.g., French fries) are commonly blanched in oil prior to freezing. In this case, blanching brings out and locks in the color and sets up the surface of the vegetable for crisping during cooking in the oven or in the fryer.



FIGURE 4. Blanching can be done in oil, stock, water, wine, or almost any liquid. The food, in this case new potatoes, is plunged into boiling liquid for a brief period of time—1 to 3 minutes. The potato will still be raw in the center, but the skin will come right off. Also, the next cooking process—baking, sautéing, or roasting—will be shortened due to the blanching.

Boiling and Frying

Grains are often cooked through multiple methods. For instance, oats are often boiled before adding them to cakes and cookies. Ground cornmeal is boiled into a mush, formed into cakes, and then is fried. Rice is typically steamed before its final preparation as a fried rice dish.

Broasting

Broasting is a combination cooking process of broiling and roasting. Broasted chicken is very juicy with crispy skin. Some restaurants use the term “broasting” when only one method—broiling or roasting—is used in the preparation. In this case, the second cooking method is probably frying because it promotes an even crisper skin but technically misrepresents the cooking method as a true combination style.

Curing

Curing is the process of preparing meats, fish, or vegetables for immediate or future use by drying, salting, smoking, and other preservation methods. Curing is technically a combination method in which the food is cooked via salting and/or sugaring in a dry rub or a liquid brine. This process alters the proteins through the use of salt and/or sugar, and then the food is slow



EXPLORING OUR WORLD...

SCIENCE CONNECTION: Connective Tissue

Combination cooking methods can result in crisp French fries, brightly colored vegetables, and great textured pasta in baked lasagna, but the reason braising and stewing lead the way in combination cooking is that both methods deal with the tough connective tissue in meats. The more connective tissue a meat cut contains, the tougher the meat will be.

The meat we eat is muscle, and muscle tissue contains connective tissue between and throughout the muscle, usually seen as whitish lines and “globs” in red meat. Connective tissue is elastin or collagen, and only one type breaks down under cooking. Elastin is stretchy and tough. It is designed to hold tissue together as it moves, and it returns to its original form. Elastin will not break down during cooking, so it should be removed prior to cooking, if possible. Collagen, on the other hand, is mostly fat and gelatin based. It starts out tough, but it breaks down and tenderizes when cooked slowly with moisture. In fact, a considerable amount of flavor in meat is derived from the collagen breaking down as meat cooks, but it does require long, slow, and moist heat to be viable.

When a cut of meat contains little or no collagen (as in lean meat), braising and stewing cannot tenderize it. In fact, it can make the meat tougher. Less connective tissue means less fat and more overall protein in the muscle. Protein coagulates (firms up) as it heats. With minimal collagen to breakdown, the protein gets firmer and firmer regardless of available moisture during the cooking method.

cooked under low heat roasting or smoking. These low-heat cooking methods add flavor and more fully cook the meat (e.g., a ham or a cured bacon).

Endless Combinations

While braising and stewing are the primary combination cooking methods designed specifically to address tenderizing tough cuts of meat, there are endless varieties of combination cooking. If tenderizing is not the primary goal, combination cooking offers ways to adjust food textures, colors, and flavors. It allows chefs to free up certain cooking equipment for other uses by starting the cooking process of foods in one way and completing them in another.

Summary:



Combination cooking describes any multiple cooking techniques used to produce a final product; usually dry-heat and moist-heat methods are used in combination. The classic combination cooking methods are braising and stewing by searing meat over high heat and then simmering it in liquid to turn tough cuts into flavorful, tender meals.

Checking Your Knowledge:



1. Why would vegetables be blanched before they are added to a stir-fry?
2. What value does searing add to a meat that will be braised?
3. If a potato recipe calls for baking and then frying the potato (both dry methods), is that still combination cooking? Why or why not?
4. In what way is “curing” considered part of combination cooking?
5. Why is stock an important ingredient for moist-heat cooking methods?

Expanding Your Knowledge:



Fried rice is a great example of a grain that is cooked using combination cooking. It is steamed and then fried. However, there is a time gap between using both methods. The rice is cooled before it is fried. Why? It is also quite common for grains (e.g., oats and corn meal) to have a combination cooking method suggested. What is the common link?

Web Links:



Combination Cooking Methods

<http://www.how-to-cook-gourmet.com/combinationcooking.html>

Cooking Meats

<http://www.how-to-cook-gourmet.com/cookingmeats.html>

Combination Cooking Fundamentals

<http://rouxbe.com/cooking-school/lessons/210-combination-cooking-fundamentals/objectives>

Fried Rice

<http://shiokfood.com/notes/archives/000018.html>

Cooking Methods

http://www.amazingribs.com/tips_and_technique/thermodynamics_of_cooking.html