



## Culinary Review - Poultry

Poultry is another main component of many entrees and recipes. Like meat, it is important to understand poultry's unique characteristics. This section explores the composition of poultry, selecting quality poultry from various types, handling and storage, and cooking methods used for its preparation.

### Composition and Structure

The flesh of chicken is muscle tissue and is the same composition and structure as the other meats that we have discussed – muscle fibers held in bundles by connective tissue. As with beef, the tenderness of chicken is based on maturity and the amount of exercise on the muscle. Because most poultry is young, tenderness related to exercise is not typically a factor. There are some differences between light and dark meat, however, that will be discussed later in this section. Skin color is determined by the fowl's diet and is not a factor affecting tenderness or flavor.

### Selecting Poultry

Maturity is the major factor and consideration when selecting poultry. Young birds can be cooked with dry heat methods such as broiling, roasting and frying. Moist heat methods also work well. Older birds are much tougher and need to be cooked very slowly using moist heat. Maturity is also the major factor in categorizing birds.

Most chickens on the market are produced by large operations that house chickens indoors in controlled environments. This allows the industry to produce a large number of healthy birds quickly. Some people and farmers believe that because these birds have been kept indoors and have not been allowed to move around very much, they lack flavor. This has made "free range" birds popular. Free-range birds have been raised in a more natural environment and can move about outdoors. "Organic" poultry is said to be raised without chemical growth enhancers or antibiotics. There is no legal definition for "free-range" or "organic" when poultry is sold. In either case, you should taste test the birds you buy for yourself to make sure that the product is worth the extra money you are paying for them.

### Specific Cuts and "Kinds"

Poultry, unlike meats, is not cut-up into many small parts. They are cut up into four basic parts: breast, wings, legs and thighs. Breasts and wings are considered "light meat" (or white meat) and have less fat and connective tissue. As a result, "light" meat cooks faster.

Legs and thighs are considered "dark" meat. They have more fat and connective tissue. As a result, dark meat takes longer to cook. Ducks and geese have all dark meat, but the differences in the connective tissue between parts hold true, that is, the breast and wings have less connective tissue. A personal chef must take these differences into account when preparing poultry.

- ❖ Poultry has different classifications and market forms. The terms for classification are kind, class and style. Kind refers to the species, such as duck, chicken or turkey.
- ❖ Class is a subdivision of kind. Class is based on age, sex and size.
- ❖ Style indicates the amount of processing that the poultry received up to the point of sale.

Most poultry bought today is either whole or cut into parts, and is considered "ready to cook." This is the style designation of most poultry today, which means that the poultry has been dressed and eviscerated, with the head and feet removed. "Dressed" means it was killed, bled and plucked. "Live" is exactly that and is almost never seen on the market today. Poultry can be purchased either chilled or frozen.



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### The Three Major Kinds of Poultry

It is important to learn the different sizes and weights of the more popular birds along with the cooking methods, which are best for each. Slow moist cooking is best for large old birds. Sautéing or broiling (dry heat with or without fat) is best for younger smaller birds.

### Chickens

Chickens are the most common poultry used today. Their parts are cooked using a multitude of methods. Age and maturity determine the class in which each bird is placed and the method of cooking that should be used when preparing it. Some of the more common classes of chicken are discussed below, along with two specialty chicken classes.

### Rock Cornish Game Hens

"Cornish hens" as they are called, are a special breed of chicken that is very young, tender, and delicate. These hens are usually 5-6 weeks old and weigh from 3/4 to 2 pounds.

### Broilers and Fryers

These are young chickens with tender flesh, flexible cartilage and smooth skin. Broilers run 1 to 2 pounds; fryers are 2 to 3 pounds.

### Roasters

Roasters are similar to fryers, but are 3 to 5 months, have less flexible cartilage and weigh 3 to 5 pounds.

### Turkeys

Turkeys are larger birds that are typically roasted. The legs are sometimes stewed or braised, while the breasts can be cut into scallops or cutlets and sautéed like veal. Turkeys are also classed.

### Fryer-roasters

Fryer-roasters are young birds, of either sex, under 16 weeks of age, weighing 4-9 pounds. Like young chickens, the flesh is tender, their skin smooth and the cartilage is flexible.

### Young turkeys

These are either hens (females) or toms (males) that are 5 to 7 months old and weigh 8 to 22 pounds. These birds have tender flesh, but have firmer cartilage.

### Yearlings

Yearlings are under 15 months old and weigh between 10 and 30 pounds. These are fully matured birds that can still be reasonably tender.

### Old or Mature

Turkeys over 15 months old are considered "old" or "mature" and have tough flesh with coarse skin.



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### **Other Birds**

#### Ducks and Geese

Ducks and geese are usually roasted with the exception of duck breasts, which are occasionally sautéed or broiled. Ducks and geese have a thick layer of fat under their skin and generally produce a lower yield.

#### Guineas

Guineas are domestically raised pheasant descendants and are handled like young chickens.

#### Squabs

Squabs are domestically raised pigeons, weighing less than a pound. They have rich dark meat with a slightly gamy flavor.

#### Quail

Quail are classified as game birds, but are commonly raised commercially. These birds are small and often are served in pairs.

### **Poultry Handling, Storage and Safety**

Poultry is very perishable. Storing it packed on ice will help it keep. Ideally, poultry should be used within 24 hours. Two days is all right, but never any more than four. If you are not going to use the poultry within those time limits, you should wrap it properly and store it in the freezer until you need it. Raw poultry can be very dangerous because it commonly carries bacteria, especially salmonella. Some sources today claim that 70% of all of our chickens carry salmonella. The risk when working with poultry is tremendous. Special precautions should be observed and performed when working with poultry.

Chicken should be thoroughly rinsed and dried before using. All storage containers, cutting surfaces, knives and utensils used with poultry must be cleaned and sanitized before they can be used again. Hands must be washed before handling other foods.

It is also important to remember to remove any stuffing or fillings from the cavity of poultry before storing. The cavity of the bird can be an excellent place for bacteria to breed. When stuffing is in the bird, it should reach a temperature of 165° F degrees before it is safe to eat.

### **Sufficiently Cooked Poultry**

Domestic poultry is almost always cooked well-done with the exception of duck breast and squab. The difference between well-done and over cooked poultry is a fine one. Poultry should be cooked to an external temperature of 180° F. That temperature will kill all of the bacteria. Attaining this temperature without drying out the meat takes experience and good timing. Some chefs can tell when poultry is cooked to completion just by looking and touching the bird. If you are not that experienced, you will need to confirm temperatures by using a standard or instant read thermometer. When checking larger birds, place the thermometer in part of the inner thigh away from the bone because this area is the last place that will finish cooking. For smaller birds you can use the following guidelines:

- ❖ Check for looseness in a joint, such as a leg. It will move freely in its socket.
- ❖ The juices inside the cavity of deep joints will run clear, not cloudy, red or pink.
- ❖ Also check to see if the muscles are pulling away from the bone, especially at the breast or leg.



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Touch poultry to check for doneness, especially when preparing sautéed chicken breasts. Experienced chefs know when the poultry is done, by the proper firmness to the touch. Do not test poultry by piercing or cutting into the flesh. This will allow valuable juices to escape, resulting in dry, tough meat. Excessive shrinkage means that the meat is overcooked and it will be dry.

### **Poultry Cooking Methods - Dry Heat**

#### Roasting and Baking

Roasting and baking poultry are the same process. Poultry will follow the same general guidelines and procedures that pertain to roasting meats, although there are a few handling differences.

Placing some mirepoix or bouquet garni inside the cavity will add flavors. The skin of poultry only needs to be seasoned if it is to be served and eaten. Oiling the skin assists browning and helps to keep the meat from drying out. Basting is good for large birds. It is best to baste with fat only, and avoid basting too frequently. Basting too frequently will cause heat loss from opening the oven door.

Roast at low temperatures (250-325° F) when cooking large birds. Lower temperatures help to keep the bird juicy. If the bird is stuffed, a higher temperature may be needed to allow the stuffing to reach a safe temperature before bacteria begins to flourish.

Smaller birds should be roasted at higher temperatures (325-375° F) because they will not brown well before they are done at lower temperatures. Sear smaller birds first, in order to cook them at a lower temperature. Very small birds, such as Cornish hens and squabs, can be cooked at high temperatures (between 400 and 450° F). This "flash roasts" these smaller birds by browning them nicely, but without overcooking them. Because of the great heat and small size of the bird, overcooking is always a concern and you must keep a watchful eye on them to prevent this.

Cooking ducks and geese at a higher temperature in the beginning will allow some of the excess fat from underneath the skin to melt off, allowing better browning.

#### Broiling and Grilling

Broiling and grilling poultry is ideal for younger, smaller birds. The procedures are the same as for steaks and chops; however, there is an important temperature difference. Use a lower heat or fire when cooking poultry because the outside may burn before the inside can finish cooking. It is important to cook poultry all the way through to consider it done.

Always start by cooking with the skin side down (even if the skin has been removed). The skin will keep the juices from dripping out and the skin side of the meat seals in the juices better because the grain of the flesh is less exposed. If the exposed skin is going to be consumed, season it.

Note: Seasoning on the skin will not penetrate into the flesh. In order to season the flesh, season under the skin and directly on the flesh.



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### Sautéing

Chicken and turkey have relatively small amounts of fat, and sautéing them is both appropriate and popular. As with the other methods used on poultry, these methods are also very similar to the methods used on meats. Here are a few differences and guidelines to follow:

- ❖ Boneless chicken breasts and thin slices of turkey are ideal for sautéing.
- ❖ Larger items can be cut into smaller ones to make it easier to cook them through.
- ❖ Often, larger items are sautéed and browned, then, the pan is deglazed and, to complete the cooking, items are finished in the oven or by simmering.

### Pan-frying

Pan-fried chicken is usually breaded or floured before cooking to an even brown color and crispness. A quarter inch of oil or more is usually used when pan-frying.

The side of the poultry that is going to be used for presentation (placed face up on the plate) should be the side that is browned first (or placed down in the pan). With poultry, this is in most cases the skin side. This is done because the initial pan-frying gives the first side the best color. After browning the chicken on all sides, the heat can be reduced to finish the cooking process without burning or over-browning.

### Deep-frying

Deep-frying is just like pan-frying except that deep-frying submerges the food in the oil and browns more evenly. Deep-frying also maintains a lower and more uniform temperature of between 325 and 375 degrees, with 350 degrees being the most common.

Because of the controlled temperature, larger pieces are not used very often since the outer surfaces will burn before the insides can cook. If necessary, larger pieces can be finished in an oven after browning in the oil. Most deep-fried poultry consist of cut up pieces from smaller birds.

## **Poultry Cooking Methods - Moist Heat**

### Simmering

Simmering is used to cook tougher fowl. The moist heat tenderizes the poultry just like it does for meats. Poultry is usually cooked in water and creates a great tasting broth or stock. This stock can be used to make many wonderful soups or sauces. If you need to retain more flavor in the chicken itself, you will need to add it to hot liquid, instead of cold liquid, later in the cooking process.

### Poaching

Poaching is used to cook poultry so it retains moisture and some subtle flavors can be added. Bouquet garni, wine and herbs also can be added to create subtle flavor.

### Braising

Braising is used to tenderize tough poultry in the same manner as braising beef. Fricasseeing is another combination method. It differs from braising in that poultry is sautéed without browning prior to finishing.