

16.2



Poultry

READING PREVIEW

Key Concepts

- Understanding poultry inspection and grading
- Identifying various types and forms of poultry
- Preparing and serving poultry

Vocabulary

- disjointing
- giblet bag
- gizzard
- keel bone
- poultry
- ratites
- suprême
- trussing

Inspection and Grading

Poultry refers to any domesticated bird used for human consumption. Poultry must undergo a mandatory inspection for wholesomeness that is similar to the inspection process for meat. The USDA poultry grades are A, B, and C. Restaurants and retail outlets purchase Grade A poultry.

Raw poultry must be kept chilled to 40°F or below during processing. Some processing techniques may call for the poultry to be chilled to 26°F, which freezes the outer layers of the bird but does not freeze it all the way through. Poultry packed from 26°F to 40°F can be called *fresh*. Chicken packed from 1°F to 25°F may be labeled *chilled*, *chilled with ice*, or *chilled with dry ice*. Poultry chilled to 0°F or less must be labeled *frozen* or *previously frozen*.



READING CHECKPOINT

To what temperature must poultry be chilled during processing?

Types of Poultry

Chicken is the most popular form of poultry, but poultry also includes turkey, ducks, geese, and a number of farm-raised game birds such as pheasant or quail. The chart on page 554 summarizes the types of poultry, their weight, their characteristics, and the appropriate cooking techniques used for them.

Recently, the family of flightless birds, referred to by their Latin name, **ratites** (RAT-ites), have become more popular. This family includes such birds as the ostrich, emu (E-moo), and rhea (RHEE-ah). Their meat is a rich red color, lean, and low in fat. Ratites have been subject to federal inspection



Source: tore2527/Fotolia

Common Types of Whole Poultry

Type of Poultry	Weight	Characteristics and Cooking Techniques
Chicken, broiler/fryer	2½–4½ lb	Younger than 10 weeks. Very tender; suitable for all cooking techniques.
Chicken, roaster	5–9 lb	Between 8 and 12 weeks old. Tender; suitable for all cooking techniques.
Chicken, stewing	4½–7 lb	Older than 10 months. Not tender; suitable for moist-heat and combination methods.
Chicken, capon (castrated male)	5–9 lb	Younger than 4 months old. Tender; usually roasted.
Duckling, broiler or fryer	2–4 lb	Young. Very tender; usually roasted but suitable for most techniques.
Duckling, roaster	4–6 lb	Older than broiler/fryer. Tender; usually roasted.
Goose, young or gosling	6–10 lb	Tender; usually roasted.
Guinea hen or fowl	¾–1½ lb	Tender; suitable for most techniques.
Pheasant	1½–2 lb	Tender; suitable for most techniques.
Rock Cornish game hen	Less than 2 lb	Younger than 5 weeks. Very tender; suitable for all cooking techniques.
Squab (domestic pigeon that has not begun to fly)	Under 1 lb	Light, tender meat; suitable for sautéing, roasting, grilling (as bird ages, meat darkens and toughens).
Turkey, young hen or tom	8–22 lb	Very tender; suitable for all cooking techniques.
Turkey, yearling	10–30 lb	Fully mature but still tender; usually roasted.



Breast, thigh, drumstick, wing

Sources: Clive Streeeter/Dorling Kindersley Limited

since April, 2002. The meat is sold as steaks, fillets, medallions, roasts, and ground meat. The tenderest meat is from the thigh. Meat is also produced from the forequarter.

Market Forms of Poultry Poultry is sold in a variety of forms. Whole birds have been cleaned and the head and feet removed. You may find a small bag in the cavity of a whole bird, known as the **giblet bag**, which includes the liver, stomach (or **gizzard**), heart, and neck.

The following are some other market forms for poultry:

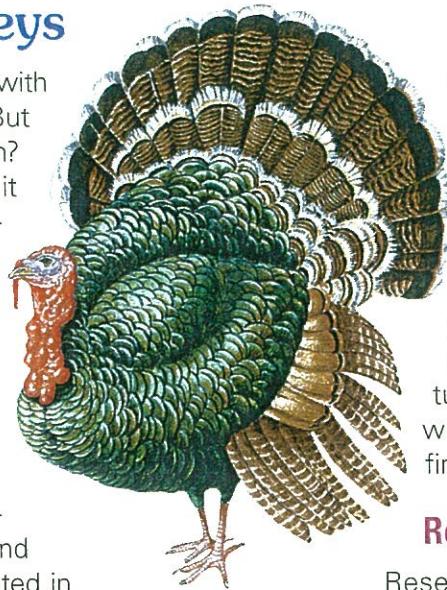
- Whole chicken cut into individual pieces (typically breasts, drumsticks, thighs, and a back, but could be half chickens or quarter chickens, as well)
- Breasts (whole breast or half breast, with the skin and bones, boneless, or boneless and skinless)
 - Whole legs (typically sold bone-in and with the skin)
 - Thighs (sold bone-in or boneless, with or without the skin)
 - Drumsticks (sold bone-in, with or without the skin)



History of Turkeys

Everyone associates the turkey with America's first Thanksgiving. But where did that turkey come from? Most of us probably assume it was a wild turkey one of the colonists shot. However, the turkey on the Pilgrims' table probably came over on the same ship they did. In all likelihood, it was an English turkey.

To understand this, you need to know a little more about turkeys. Turkeys were originally native to North America and Mexico. They were domesticated in Mexico around 200 B.C.E. Returning conquistadors brought turkeys to Spain in 1510. A few years after that, turkeys were brought to English farmers. It



Wild turkey

Source: Angelika Elsebach/Dorling Kindersley

was these turkeys, descended from the original Spanish turkeys, that the Pilgrims brought with them on the *Mayflower* in 1620. The Pilgrims eventually bred their domesticated turkeys with wild turkeys, developing new, hardier, meatier, and better-tasting turkeys. On Thanksgiving, as you eat your turkey, think of the long journey on which turkeys traveled to arrive on the first Thanksgiving table!

Research

Research the breeds of turkey today. Compare heirloom, heritage, or legacy breeds with the breeds produced for factory farming. Determine what kinds of turkeys are available in your area.

- Wings (typically sold bone-in, with the skin)
- Ground poultry
- Processed poultry (made into such processed items as patties, sausages, or bacon)

Choosing Quality Poultry Poultry should have plump breasts and meaty thighs. The skin should be intact with no tears or punctures. Poultry must be purchased from reputable purveyors and, for optimum quality, kept chilled to below 40°F during storage. Put poultry in drip pans before storing it in the refrigerator so it does not contaminate food stored below it.



READING CHECKPOINT

What types of whole chickens are commonly available?

Preparing and Serving Poultry

Poultry is one of the most popular of all menu offerings. Basic poultry fabrication techniques can be applied to virtually all types of poultry, not only chicken but also squab, ducks, or turkey. You will, however, need to make some adjustments. Smaller birds require more delicate, precise cuts and a smaller blade. Larger or older birds call for a heavier blade and greater pressure to break through tough joints.

Chef's Tip

Knife Selection and Care

Select the right knife for the task and use a steel before and during work. With a sharp knife, you are less likely to waste poultry. Cuts will also be neat and straight for better-looking dishes.

Trussing Poultry One of the most important skills required for cooking poultry is trussing whole birds. The object of **trussing**, or tying, a bird is to give it a smooth, compact shape so it cooks evenly and retains moisture. There are several methods for trussing poultry. Some involve special trussing needles; some require only string. The method demonstrated demonstrated in the box on page 557 uses only string.

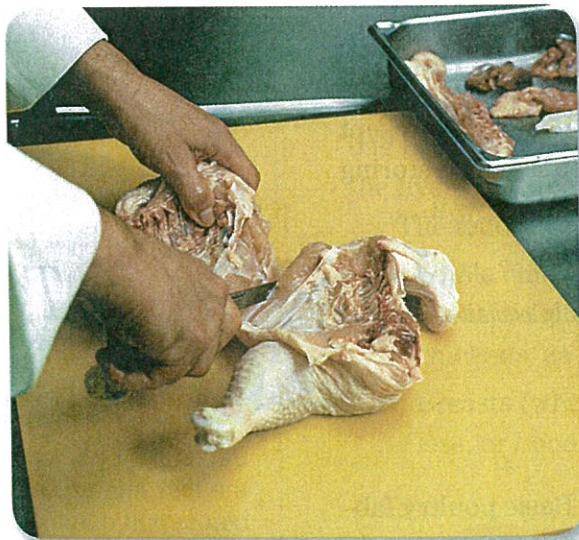
Disjointing Poultry Before or after cooking, poultry can be cut into halves, quarters, or eighths. Overall, this process is referred to as **disjointing**. When you divide a bird in half, you need to cut through breast. The two halves of the breast are joined by some cartilage as well as a bone known as the **keel bone** because it is shaped like the bottom (or keel) of a boat.

Cutting into halves is an especially important technique for use on smaller birds, such as Cornish game hens and broiler chickens, that will be grilled. These birds are small enough to cook through before the skin becomes scorched or charred. One half of the bird is usually enough for a single portion.

BASIC CULINARY SKILLS

Disjointing Poultry

- 1 Remove the backbone by cutting along both sides of it.
- 2 Remove the keel bone by pulling it away from the chicken.
- 3 Cut the chicken into halves by making a cut down the center of the breast to divide the bird in half.



Source: Culinary Institute of America

- 4 Separate the leg and thigh from the breast and wing by cutting through the skin just above where the breast and thigh meet.



Source: Culinary Institute of America

- 5 Cut at the joints to separate the leg and thigh, and the wing and breast, if desired. Otherwise, leave in quarters (as shown).



Source: Culinary Institute of America

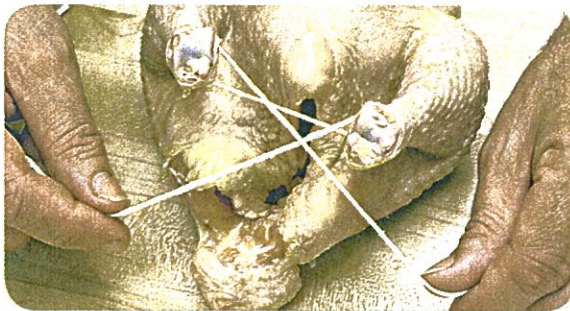
Trussing Poultry

- 1 Remove the giblets (if any).
- 2 Cut off the first wing joints. Also cut away any pockets of fat from the bird's cavity.
- 3 Stretch the skin to cover the breast meat.
- 4 Pass the middle of a long piece of string underneath the joints at the end of the drumstick. Cross the ends of the string to make an X.



Source: Culinary Institute of America

- 5 Pull the string toward the tail and begin to pull the string back along the body on both sides.



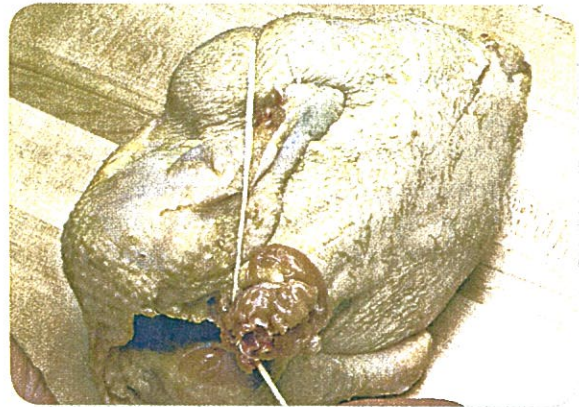
Source: Culinary Institute of America

- 6 Pull the string tightly across the joint connecting the drumstick and thigh. Then pull it along the body toward the bird's back, catching the wing underneath the string.



Source: Culinary Institute of America

- 7 Pull one end of the string underneath the backbone at the neck opening.



Source: Culinary Institute of America

- 8 Tie the two ends of the string securely.



Source: Culinary Institute of America

- 9 The properly trussed bird is ready to cook.



Source: Culinary Institute of America

China

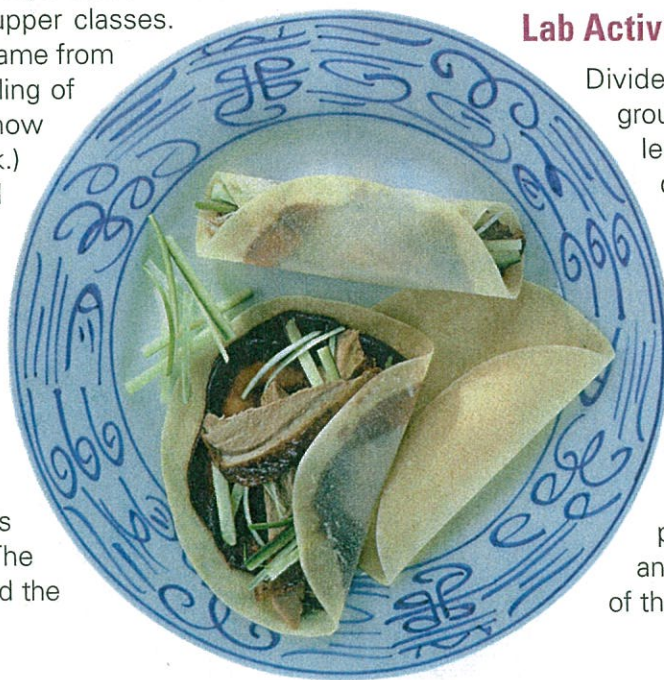
China is a vast land with many individual cuisines. These are based on the geography, climate, resources, cooking styles, and lifestyles of particular regions. For instance, the landlocked Szechuan province in southwestern China has subtropical areas in the southeast and cold mountainous regions in the northwest. Szechuan cuisine is known for its bold flavors featuring chili peppers, garlic, and ginger.

Fujian cuisine, from the Fujian province on the southwest coast of China, is very different. It focuses on retaining the original flavors of the main ingredients, which are typically fish and seafood or, in inland areas, peanuts, bamboo shoots, and other woodland delicacies. But perhaps no dish from any Chinese cuisine is more internationally famous than Peking duck.

Roast duck can be traced back as far as 1330 in China. When the Ming Dynasty capital was shifted from Nanjing to Beijing in the early 15th century, roast duck was one of the favorites of the imperial court. According to local history, the Bianyfang restaurant in Beijing, which opened in the mid-16th century, was the earliest roast duck restaurant. By the 18th century, Beijing-style roast duck had become a favorite of the upper classes.

(Peking duck gained its name from *Peking*, an alternate spelling of *Beijing*. Peking duck is now often called Beijing duck.) Eventually a special breed of duck was reared exclusively for the dish.

What makes Peking duck so good? It starts with an air pump! The carcass is inflated, separating the skin from the body. After some seasoning and drying, the duck is roasted in a hot oven. The duck's fat melts away and the skin becomes crispy.



Peking duck in a pancake

Source: Clive Streeter and Patrick McLeavy/Dorling Kindersley



Source: Olinchuk/Shutterstock

The traditional way of serving Peking duck is as a three-course meal. First the crispy skin is served with small steamed pancakes, raw scallions, hoisin (HOY-sinh) sauce (a thick, brown, sweet-and-spicy sauce made from soybeans, garlic, chiles, and spices), and plum sauce (a spicy, fruity sauce made from plums, chiles, vinegar, and sugar). For the next course, the duck meat is chopped up, stir-fried, and eaten wrapped in fresh lettuce. For the final course, the bones are used for broth.

Lab Activity

Divide the class into small groups. Each group will select a different Chinese dish to research. Explain how your dish is a representative of a particular style of Chinese cooking. Focus on the geography, climate, resources, cooking style, and lifestyle of the region from which your dish originates. If possible, cook your dish and compare to the dishes of the other groups.

Large birds can be further broken down into quarters for portion-sized pieces or into eighths for smaller pieces. If the bones are left in during cooking, they provide some protection against scorching and shrinking. Save the wing tips and backbone for use in the preparation of stock.

Fabricating Skinless, Boneless Breasts The same technique used to make boneless, skinless chicken breast portions can be used for pheasant, partridge, turkey, or duck. If one wing joint, often frenched, is left attached to the breast meat, it may be referred to as a **suprême** (soo-PREM).

Determining Doneness Cooking poultry properly is important. Guests are as aware of food-borne illnesses, and as concerned by them, as chefs are. Fully cooking poultry is an important way to be sure it is safe when you serve it to a guest. When poultry is fully cooked, its juices should be clear, with no trace of pink. When a chicken is properly roasted, you can move the leg easily. You can also test whole poached chickens this way. Of course, the final test is always a thermometer. The safe internal food temperature for poultry is 165°F taken at the thickest point of the cut, or in the thigh near the body for whole birds. In some restaurants, and for some types of poultry such as duck breast, guests may ask for a specific degree of doneness.

FOCUS ON Safety

Be Safe

The safe internal temperature for poultry is 165°F.

BASIC CULINARY SKILLS

Boneless Breast Portions

- 1 **Cut along either side of the keel bone,** with the breast bone facing up. Use your guiding hand to steady the bird.



Source: Culinary Institute of America

- 3 **Free the meat from the bones,** using the tip of the knife. Run the tip of the knife along the bones.



Source: Culinary Institute of America

- 2 **Remove the breast meat from the rib cage** with delicate cuts.

- 4 **Boneless breast portions can be pounded into cutlets,** if desired.

FIGURE 16-7

Testing for Doneness

The chef checks the internal temperature of a roast chicken.

COMMUNICATING *What would you serve with this roast chicken?*

Source: Richard Embery/Pearson Education/PH College



Recipe Cards

- 114. Sateh of Chicken
- 115. Chicken Fajitas
- 116. Roast Turkey
- 117. Southern Fried Chicken with Country-Style Gravy

Recipe Card

- 118. Chicken Pot Pie

Dry-Heat Methods Roast whole chicken, baked chicken parts, grilled or barbecued chicken, and fried chicken are all popular chicken dishes made by dry-heat cooking methods. All but a few types of poultry are excellent for these methods. Most of the poultry you will find for sale in supermarkets is young, tender, and meaty—perfect for dry-heat methods.

When you are roasting whole birds, such as turkey, chickens, ducks, or geese, it can sometimes be difficult to get the dark meat of the legs and thighs fully cooked without overcooking the leaner white meat portions. So, if you are preparing portions, start the dark meat portions before the white meat portions so both types of meat are finished at the same time.

Moist-Heat Methods Any moist-heat method or combination method is suitable for poultry, including steaming, poaching, simmering, stewing, and braising. Steaming and poaching are often used for lean, tender portions. Shallow poaching is popular for breast portions because the cooking liquid can serve as the basis for a sauce that can add moisture and flavor to the breast when it is served.

Serving Poultry Poultry is, perhaps, the most popular menu choice in restaurants today. Guests enjoy poultry because of its flavor, but they also choose it because of its perceived health benefits. It is lower in saturated fat and cholesterol than most red meat. Poultry is a versatile food that pairs well with most cooking techniques and is a good vehicle for flavors from around the globe.



READING CHECKPOINT

What is the safe internal temperature for cooking poultry?



FIGURE 16-8

Variety of Poultry Dishes
 Duck with sesame seeds (left), chicken stir-fry with mango (right), turkey tortillas.

COMMUNICATING Which of these poultry dishes looks the most appealing to you?

Source: Edward Allwright/Dorling Kindersley

16.2 ASSESSMENT

Reviewing Concepts

1. To what temperature must poultry be chilled during processing?
2. What types of whole chickens are commonly available?
3. What is the safe internal temperature for cooking poultry?

Critical Thinking

4. **Comparing/Contrasting** Compare the smallest and largest types of commonly available whole chickens in terms of their size and cooking techniques.
5. **Inferring** Why might it be helpful for a restaurant to purchase whole chickens and disjoint them in the kitchen?
6. **Inferring** Do you think cooking ostrich meat would be more like cooking turkey or more like cooking beef? Why?

Test Kitchen

Divide into four teams. Each team is responsible for locating a simple recipe that uses skinless, boneless breast of chicken. Each team will make its recipe and share the dish with the other teams. Evaluate the differences, focusing on the role that chicken plays in the dish.

SCIENCE

Chicken Breeds

Research the history of three particular breeds of chicken that are used as a food. Write a report on the breeds, including where they originated, how long they have been bred, and any comments on the amount, flavor, color, or texture of their meat.

PROJECT

16

Trussed or Untrussed You are now ready to work on Project 16, "Trussed or Untrussed," which is available in "My Culinary Lab" or in your *Student's Lab Resources and Study Guide* manual.