

# Knives and Cutlery

**K**NIVES are one of the most important tools in the kitchen. There are dozens of styles and sizes designed to handle jobs such as chopping delicate tomatoes, boning fish, and carving large roasts. Every chef needs a good selection of knives that feel comfortable in the hand. In this unit, you will learn how to recognize high-quality knives as well as the proper techniques for using, maintaining, and storing your cutlery.



## Objective:



Identify knives and cutlery.

## Key Terms:



blade

bolster

French/chef knife

handle

honing

knife

paring knife

rivets

sharpening steel

tang

whetstone

## Understanding Knives and Cutlery

A **knife** is a cutting instrument that consists of three main parts: a blade, a handle, and a tang. Depending on the type, a knife may include rivets and a bolster. For most chefs, a basic knife kit contains a chef knife, a serrated knife, a paring knife, and a pair of kitchen shears.

## KNIFE PARTS

When selecting a knife, you should consider the quality, comfort, and balance. It is important to understand the parts of the knife before making a purchase to ensure that quality characteristics are selected. In addition, a cutting board should be used.

## Blade

The **blade** is the part of the knife used for cutting foods. A knife blade may be constructed from a variety of materials. Examples of materials are stainless steel, high-carbon steel, high-carbon stainless steel, titanium, and ceramic. Most professional chefs use ceramic or high-carbon stainless steel. A good blade is hand ground as well as tempered and annealed, which is a process of heating and slowly cooling the blade in a furnace to make it less brittle.

A high-carbon stainless steel blade combines the durability of stainless steel with the ease of sharpening attributed to high-carbon steel. A ceramic blade is made from zirconia. Typically, it is sharpened by a professional or is returned to the company for sharpening.

## Handle

The **handle**, or haft, is the part of the knife held in the hand. It should feel comfortable to the user. The grip and good balance in the hand aid in knife safety and efficiency. Finding the correct handle, grip, and total knife weight is important for safety, efficiency, and professional presentation. The handle can be made of a variety of materials (e.g., plastic, wood, hard rubber, and various metals). A knife with a shiny plastic handle tends to attract grease and is not considered foodservice safe.

## Tang

The **tang** is the part of the blade that extends into the handle. There are full tangs, partial tangs, and rattail tangs. It is important to have a full tang in knives used for heavy cutting. A half tang is as wide as the handle, but it only extends halfway into the handle. A rattail tang extends the length of the handle, but it is not as wide as the handle.

## Rivets

**Rivets** are metal pins or bolts used to fasten the tang to the handle. The rivets should be smooth and level with the handle. Rivets that protrude beyond the surface of the handle will eventually irritate the hand during prolonged use. If the rivets are countersunk into the handle, they may harbor debris and microorganisms. In general, better knives have more rivets. Some half-tang and rattail-tang knives use glue or gum to attach the tang to the handle and should not be used in a professional kitchen.

## Bolster

The **bolster** is the thicker, metal junction between the handle and the knife blade. It is usually the width of the handle to keep debris from entering the creases of the handle while in use. The bolster provides added strength and durability for heavy cutting. In addition, it serves as a counterbalance because the blade is heavier than the handle.

## Cutting Boards

It is necessary to use cutting boards when cutting with a knife. All boards can harbor bacteria, so carefully clean the boards with hot, soapy water after every use, paying special attention to any nicks and gouges. Occasionally, you may need to soak the boards in a light chlorine and water solution and then scrub them again, rinse, and finish by rubbing with vinegar or lemon juice to remove any chlorine odor. Color-coded cutting boards prevent cross-contamination. Use beige boards for raw fish and shellfish, red boards for raw meats, and blue boards for cooked foods. Use white boards for dairy products, green boards for fruits and vegetables, and yellow boards for raw poultry.

## CUTLERY CATEGORIES

Several categories of knives are used for specific tasks. It would be difficult to peel an apple with a 12-inch long knife blade. Likewise, it would be difficult to carve a turkey with a paring knife. Knife categories include:

- ◆ Chopping and mincing knives (e.g., French, chef, or Santoku)
- ◆ Butchering and boning knives (e.g., cleavers and fillet)
- ◆ Slicing, paring, and cutting knives (e.g., slicers, Tourne, serrated, and utility)
- ◆ Flexible blades with rounded tips (e.g., offset spatulas and sandwich spreaders)

### French/Chef Knife

The **French/chef knife** is the most popular knife used in the professional kitchen. The blade typically ranges from 6 to 12 inches in length, although it may be longer. A chef usually purchases the longest knife that feels comfortable. The blade is wide, slightly curved, and rigid. In addition, it has a pointed tip. You can use a chef knife for chopping, mincing, and dicing with a rock-chop motion. You also can use it for some slicing, especially of vegetables. In some cases, you can use it for splitting poultry and lobsters, or you can turn it on its side for mashing fresh ginger and garlic.

### Santoku

Santoku is a Japanese-style chef's knife similar to a French knife. "San" is the Japanese word for three, and "toku" is the Japanese word for good



FIGURE 1. A chef knife is used for chopping, mincing, and dicing vegetables.

things. It is used for three good things: slicing, dicing, and chopping. Slicing may result in *fermier*, or square cuts, and *paysanne*, or triangular cuts. The Santoku blade is thinner than a French knife, allowing for thin, precise cuts. The edge may be tapered or may be a *granton*, which is a hollow-ground ovoid shape.

### **Butcher Knife**

A butcher knife is designed for cutting, rather than chopping, raw meats and poultry. Its handle often is curved or notched to give the user more leverage than a French knife. The blade is 15 to 19 inches long, with a straight upper edge and a curved tip.

### **Boning Knife**

A boning knife has a narrow 6- to 9-inch long blade. It may be rigid, for removing red meat bones, or flexible, for removing small bones from chickens, ducks, and quail.

### **Cleaver Knife**

A cleaver knife is a heavy knife designed to perform heavy cutting, such as going through bones. It has a rectangular blade with a hole in the top, which allows the knife to hang from a peg or hook. Use a cleaver to split lobsters and poultry or to separate chops from a loin roast. Use the side of a cleaver to mash fresh ginger or garlic.

### **Fillet Knife**

A fillet knife is similar in shape to a boning knife, but it has a thinner, more flexible blade. The blade typically is 5 to 8 inches long. You can use it to remove skin and to debone fish and poultry.

### **Paring Knife**

A **paring knife** is the second most used knife in the professional kitchen. It looks like a smaller version of a chef knife, with a 3- to 4-inch blade. The shorter blade makes this knife feel more like an extension of the hand rather than an impact tool (e.g., the French knife). The curve of a paring knife blade is not as pronounced as that of a chef's knife. You will primarily use this type of knife for peeling, cutting, and trimming food (e.g., fruits and vegetables). Other uses are mincing herbs and scoring hams and baked goods prior to baking or roasting.



**FIGURE 2.** A paring knife can be used for peeling vegetables.

## Tourne Knife

A Tourne knife is a type of paring knife with a 3- to 4-inch curved blade. It can be used to cut fruits and vegetables into rounded shapes. Use this type of knife to make a Tournée cut, which turns vegetables into round or ovoid shapes.

## Serrated Knife

A serrated knife can be used for slicing breads, angel food cake, tomatoes, and some other fruits and vegetables. The blade is 7 to 8 inches long and is saw-toothed or hollow-ground. Use the blade in a sawing motion.

## Slicer Knife

A slicer (carving) knife is designed to cut through cooked meats. The blade is thin, straight, and flexible. This knife typically has an 8- to 14-inch blade that is smooth or hollow-ground with oval voids or depressions in the blade to allow moist food items to be sliced without sticking to the blade. It usually has a rounded or pointed tip. A thin, flexible blade is good for slicing cold meats, while a heavier and more rigid blade is used for soft, hot meats.

## Utility Knife

A utility knife is an all-purpose knife that is a bit smaller than a French knife and a bit larger than a paring knife. The blade is 4 to 7 inches long. Sometimes it is tapered, and sometimes it is serrated. Use a utility knife for chopping, dicing, slicing, and peeling.

## Flexible Blade Knife

A flexible blade knife is thin, with a rounded tip. It has a long, thin, flexible blade that is 4 to 10 inches in length. In contrast, a sandwich spreader has a short 3- to 4-inch serrated blade. A



## UNDER INVESTIGATION...

### LAB CONNECTION: Choosing a Knife

It is important for a chef to be comfortable with his or her tools, including knives. Experiment with knives of various sizes and shapes to find what feels most comfortable in your hand.

First, gather chef knives of various lengths and weights, as well as three or four other types of knives (e.g., paring, utility, and large serrated). You also will need a selection of raw vegetables, a loaf of bread, and both raw and cooked meat.

Test each knife on a variety of food. First, use each chef knife to determine which size and handle feels most comfortable in your hand. Chop some vegetables, using the rock-chop motion. Once you select the proper chef knife, compare the results in different foods. Which knife performs better when slicing bread? Which knife cuts raw meat into chunks with ease? Use paper and a writing utensil to create a chart detailing the best use for each of the knives you test.



flexible knife can be used for icing cakes and desserts as well as for sandwich spreads and fillings.

## Other Cutlery

Other cutlery has specific purposes and includes clam and oyster knives, cheese knives, plastic salad knives, grapefruit knives, and French tomato knives. Frozen food knives, offset spatulas, meat saws, meat forks, steak knives, dinner knives, and electric knives may be used in the kitchen as well.

## KNIFE SAFETY AND MAINTENANCE

Knives are the most vital and expensive tools used by chefs. Knives can be very dangerous, so you must exercise safety precautions to prevent injuries. When using the handle grip, wrap all four fingers around the handle while placing your thumb on the spine, where the blade meets the handle. This is an excellent grip style for smaller hands. The blade grip is better for larger hands. For this grip, hold the back of the knife blade between the thumb and forefinger and wrap your other three fingers around the handle. For this grip, hold the back of the knife blade between the thumb and forefinger and wrap your other three fingers around the handle.

Do not engage in horseplay while handling a knife. Limit the amount of time walking with a knife. When you must carry a knife, hold it angled slightly away from the body, with the tip pointed down.



**FIGURE 3.** The blade grip requires you to hold the back of the knife blade between your thumb and forefinger and wrap your other three fingers around the handle. Curl the fingers of your other hand under your knuckle to avoid accidentally cutting yourself.

## Cutting Board

Work with a knife on a cutting board. Cutting on other surfaces can dull and damage the blade. Keep the knife handle completely on the cutting board, not over the table edge, to prevent accidentally brushing a knife on the tabletop. Hand someone a knife by placing it on a cutting board, rather than pointing the blade toward another person.

If you drop a knife, let it fall. Attempting to catch a falling knife is dangerous. Be aware of the location of your hands and the knife at all times. Work carefully and cut away from your body. Take safety measures, such as wearing cutting gloves made of chainmail, when necessary.

## Storage

When knives are not in use, store them in a safe place, such as a knife block, knife case, or knife organizer. These storage containers prevent injuries to individuals, and they prevent the knives from banging together, which could result in damage to the blades.

## Cleaning

Clean knives immediately after use, and clean them periodically during use if the knives are used for long periods. Hand washing knives is recommended over dishwasher cleaning. Extreme temperatures and cleaning agents can dull knives and ruin the integrity of the handles. Do not store the knives in the sink. Place them on the sideboard and then wash, rinse, sanitize, and allow them to dry.

## Sharpening

Sharpening is a form of knife maintenance. Knives should be sharpened before, during, and after use. Dull knives require more force to go through the items being cut, making the tasks more dangerous. Sharp knives will slice through items effortlessly. Sharpening equipment includes whetstones, carborundum stones, sharpening steel, Zip-Zap ceramic sharpener, and sharpening oil.

### Whetstone

A **whetstone** is a gritty 6- to 10-inch stone used to grind a sharp edge on a knife blade. Some have two or three sides, each with a different degree of grit for different sharpening needs. The coarsest grit side should be used first, working down to the finest grit side.

To sharpen a knife, first place a dab of oil on the whetstone. Run the blade across the whetstone at a 20- to 25-degree angle from heel to tip, about 10 times on each side. Repeat the process using the other grit sides. Keep your fingers on the middle point of the blade to make the draw smooth and steady across the whetstone. Sharpen each side of the knife equally. Finally, use a sharpening steel to “true up” the blade.

### Sharpening Steel

**Sharpening steel** is a long steel rod with a handle and a hand guard or hilt used after sharpening to “true up” the blade’s edge. The action of “trueing” is called honing and does not sharpen the blade. **Honing** is aligning the blade and removing imperfections or burrs.

The honing procedure is done heel to tip, much like the sharpening procedure. The only difference is that the steel is held perpendicular to the cutting board. Then run the blade across the steel at a 20- to 25-degree angle for about four strokes on each side. Clean the knife, and it is ready for use.

## Summary:



A knife is a cutting instrument that consists of three main parts: a blade, a handle, and a tang. It is one of the most important tools a chef uses. Signs of a high-quality knife include a tempered blade, comfortable handle, full tang, and inset rivets. Different types of knives are used for different jobs. Some blades are smooth, while others are serrated. Some are rigid, while others are somewhat flexible.

It is a chef's responsibility to care for his or her knives properly to maintain the knives and to protect the safety of everyone in the kitchen. Knives should be cleaned immediately after use and stored in a safe place. They should be kept sharp because dull knives are more dangerous.

## Checking Your Knowledge:



1. What are the five parts of a knife?
2. What is the most popular knife used in the professional kitchen?
3. What type of knife is used for slicing bread and angel food cake?
4. What are five safety standards for using professional knives?
5. What methods are used for sharpening knives?

## Expanding Your Knowledge:



The quality of knives varies greatly, as does the price. Visit several stores or Web sites to compare the cost of a chef knife. You might find one at a discount store for a few dollars, while a high-quality professional knife may cost hundreds. Compare the reviews, weight, and materials used in the various knives. Contact a professional chef to ask where he or she purchases knives and how long a knife typically lasts if cared for properly.

## Web Links:



### Best Knife for You

<http://californiatable.blogspot.com/2007/09/how-to-choose-knife-best-for-you.html>

### Choosing a Chef Knife

<http://www.finecooking.com/articles/how-to-choose-chefs-knife.aspx>

### Keeping Your Knife Sharp

<http://culinaryarts.about.com/od/culinarytools/qt/sharpen.htm>