

All About Knives

Knife care

Good quality knives work better and last longer than lower quality knives. They also cost more, so proper care is essential. Here are some things to remember:

- Knives should be kept sharp; dull knives are more dangerous than sharp ones.
- Always use a cutting board; it prevents scarring of counters or other surfaces and a good cutting board will help you keep knives sharp.
- Wash knives separately; don't put knives into a sink of dishes.
- Never put knives in a dishwasher; wash by hand.
- Store knives separately



Types of knives

There are many types of knives available and they serve various purposes. It is said that Julia Child had over 60 knives, some with very specific uses. However, you can work very successfully with just a few.

They include:

- Chef's knife – usually 8 – 10 inches long; good for cutting and chopping firm or large vegetables.
- Paring knife- shorter and smaller blade than a chef's knife; used for cutting smaller foods; good for mincing small items and herbs and slicing fruits.
- Serrated knife – jagged blade; 8 inches is a good length; excellent for cutting tomatoes and breads.
- Boning knife – used to remove bones from fish, poultry, and meat; blade is usually about 6 inches long.
- Steel – not actually a knife but is used to hone knives; used to keep knives sharp, however, it will not sharpen a very dull knife.



Information from the Oklahoma CIMC curriculum *The Chemistry of Food*

Knife Anatomy

- Handle—helps keep knife balanced. It should be about the same size as your hand when wrapped around it—should practically disappear so the knife blade looks like it is part of your hand. Handles should be slip resistant and comfortable to hold—try holding several knives to see how they feel before buying.
- Blade—blades are generally either forged or stamped. Stamped blades are punched out of steel and are usually lighter in weight. A forged blade is made by pouring molten steel in a mold. Both types of blades perform well.
- Blade material—different materials sharpen and stay sharp differently. Ceramic blades are expensive and extremely sharp but are fragile; high-carbon stainless steel tend to stay sharp longer than carbon steel blades. The carbon steel can create a sharper blade but it dulls more quickly than a high-carbon blade.
- Curve of blade—knives for different jobs have different shaped blades. For example the blade of a chef's knife should be long and slope to a gentle curve as this knife is often used for mincing and chopping, which require a rocking motion of the blade.
- Length of blade—again this depends on the type of knife being used; typically 8" is good for a chef's knife; you don't want the length to be too long as it can make the knife harder to handle.



Blade Basics

Different parts of the knife blade are used for different cuts.

- Knife Tip—when cutting with the tip of the knife, you will use a motion that draws the knife toward you; insert the knife with the tip facing down then move the blade downward to allow the tip to cut through the food item then pull the knife (with the tip touching the cutting surface) toward you.
- Blade Center or Middle—you will use the curve of the blade to cut through the food with smooth stroke that moves forward and down; the tip will come off the cutting surface when cutting large items like potatoes but will stay on the cutting surface when cutting small items like celery.
- Heel—it is the strongest part of the knife and located closest to the handle and is used to cut hard-shelled squash and chicken bones; to cut with the heel, you should put your palm flat over the blade.
- Whole blade—used to mince foods and uses a rocking motion; the fingers of your free hand should lightly hold the tip end of the blade on the cutting surface.

Knife skills

Learning to use knives properly is key to safety. The basic cutting techniques should be learned to help with safety issues and to enhance cooking experiences. The first step in using a knife safely when cutting is to hold the knife properly. Three fingers should wrap around the handle of the knife and your forefinger and thumb should straddle the blade, close to the handle. Your other hand will hold the item being cut and you must hold it properly as well. Your fingers should be curled under to protect your fingertips, in a claw-like position. Your little finger and thumb grasp the item you are cutting and should be further back than the other ones. The knuckle area of your index and middle fingers will be touching the knife when cutting. Here are some common cuts and how they are made:

Slicing – cutting into uniform pieces

- Keeping the tip of your knife on the cutting board, use a rocking motion to cut down through the food.
- Use the whole length of your knife.
- Cut as thinly as you want the end result to be – it is often hard to cut a narrow slice in half



Chopping – cuts food into pieces that are larger than in dicing or mincing; usually more chunky than slices.

- Peel and remove stem, if necessary
- Use your guide hand to move the food toward the knife and repeat until you have chopped through the entire length of the food.

Dicing – similar to chopping but cut into finer, uniform cubes; pieces are usually ¼-3/4” cubes

- Trim the edges of the food you are dicing so the sides are straight and even.
- Keeping knife vertical, slice the food into panels the size dice you want; 1/2” for example.
- Stack the panels neatly and then slice them lengthwise in 1/2” sticks.
- Line up and stack the sticks you cut and cut across to make ½” cubes or “dices.”



Mincing - similar to chopping but much smaller pieces; generally not as uniform as dicing.

- To mince an onion or shallot, cut it in half from the tip to the root and peel; keep the root intact
- Lay half of it flat on the cutting board.
- Slice vertically, beginning at the root, making as many narrowly spaced slices as you can; remember to keep the root intact to keep the whole thing together.
- Holding your knife blade level, slice horizontally through the onion/shallot several times; the more slices you can make, the finer your mince.
- Cut down from the top of the onion/shallot. Begin at the top end, not the root end, and cut thin slices for a fine mince.



Julienne – cuts vegetables or other food into matchstick-like pieces that are narrow and thin; generally about 2 – 3 inches in length and 1/8 inch across.

- Cut your item into pieces the length you want your sticks to be; for example, you would cut a carrot crosswise into 2-inch pieces for a 2-inch julienne.
- Trim the edges straight as you did for a dice. For round vegetables like carrots, you can cut them in half lengthwise for stability.
- Cut 1/8” thin panels.
- Stack panels and cut lengthwise into 1/8” sticks.

Using and Maintaining Knives

Life Cycle

A sharp knife blade is thicker on the top of the blade and tapers down to a thin, pointed edge. When the knife is used for cutting, the thin edge of the blade rolls slightly so the point is no longer centered. This causes the knife to dull slightly. A steel can be used to restore the sharpness—it removes the fold over of the blade. Over time, the edge will become dull as the sharp edge becomes rounded and the sharp, 20 degree pointed edge is lost. At this point, the knife must be sharpened—steeling won't be enough to help when a knife is really dull.



Sharp or Not?

Since all knives become dull over time (even the very best ones), they will need to be sharpened. But, how do you know when to sharpen your knives? Use the paper test! Fold a piece of newspaper but don't form a crease in it. Place your knife blade at the top, loosely folded edge at an angle and slice the paper outward. If your knife blade doesn't cut cleanly through the paper, it is at least somewhat dull. Use your steel to straighten the edge and try the cut again. If the blade still isn't making a clean cut, you need to sharpen the blade.

When To Steel

A sharpening steel often comes with a set of knives. It is that metal rod with a handle. It is used to realign a knife blade that has become slightly rolled over. A steel can be used only for a misaligned blade, not on a rounded, dull edge because it doesn't sharpen edges, only realigns them. You should try "steeling" when a blade seems slightly dull to see if the dullness is from a rolled edge. For some additional information on steeling knives, see the information at <http://culinaryarts.about.com/od/culinarytools/ht/honing.htm> or <http://video.about.com/housewares/How-to-Use-a-Knife-Steel.htm> or <http://cutlerscove.com/kwg/knife-steel.htm>



Sharpening

There are three basic ways to sharpen your knives—send it to a professional knife sharpener, use a whetstone to sharpen it (this can be fairly difficult to do correctly), or use a manual or electric knife sharpener. This is the quickest, easiest way to sharpen your knives.

Dull is Dangerous!

While it may seem that an ultra sharp knife would be the most dangerous, it is actually a dull blade that is! Why? When a blade is dull, it takes more pressure to make a cut—the blade is more likely to slip and end up cutting you instead of the food. A sharp blade is not as likely to slip and cut you! And watch out for the onions—they are one of the slipperiest foods to cut.



Lengthen the Life of Your Knife and its Sharpness

Keep knives out of the dishwasher! Movement during the wash cycle can cause knives to be knocked around and dull/damage the blade edge. Another way to keep your knife sharp and cutting smoothly is to use a plastic or bamboo cutting surface. Glass is easy to clean but can dull the edge of your knife. Acrylic is also a dulling surface.

Basic Safety

So how do you safely cut round or slippery items? For rounded items like carrots or potatoes, you should cut larger items in half to give you a flat edge; for smaller items like carrots, you should cut a thin slice off one side and lay the carrot with the flat side down. To keep items from slipping around, you need a stable hold. Curling your fingers when holding the item to be cut adds stability. To protect your fingers, curl fingers under and let your knuckles touch the side of the blade. This keeps fingertips out of the cutting area. It can take some practice to get comfortable with this position, but it can save fingertips!

