

Knife Safety, Sharpening and Maintenance

Humans have made and used knives as tools for millions of years. Today's designs and materials are more sophisticated and complex than ever before and continue to evolve. Reduced to its basic elements, a knife has one or more blades that are pro-

tected by a handle or sheath when not being used.

Cut Away From You

Knives are among the safest of tools if used properly and respected. The first rule of knife safety is always

to cut away from your body or from another person. There is always the possibility of an accident or the blade sticking or slipping. Observe the same rule when sharpening blades. Cut away from you.

Knife accidents also happen when the object being cut is not firmly secured. Always cut on a firm surface and even hold the object in a vise if you can. Do not hold an object so another person can cut it unless you are both facing away from the potential arc of the blade or blade tip.

Remember that knives are typically made for cutting. They are not hammers. If used as a hammer, the force of the blow can cause your hand to slip up and along the blade. Or you can miss the object you're aiming at and strike your fingers or wrist on the object. Chopping or hammering with a knife can also cause pieces of the object to fly in all directions, maybe even into your eye or the eye of a companion.

Knives are not screwdrivers or pry bars. A blade that is stressed by twisting can slip or snap, possibly injuring the user. Use the right tool for the job.

Teach Children Knife Safety

From our earliest days of learning to eat by ourselves, we use utensils. Children begin the process by using their fingers. Then they graduate to spoons, forks and, finally, they are allowed to cut their own food with a knife.

Teaching proper knife use means teaching knife safety at the same time. This responsibility begins with parents and guardians and it doesn't end with one casual lesson. Learning requires the three Rs ... repetition, reinforcement and role models. And when it comes to knives, let's wrap those three in another R ... respect.

Safe knife use begins with the clear message that knives are tools, not toys. A great place to teach knife safety is in the kitchen. Allow your children to help with meal preparation. Teach them

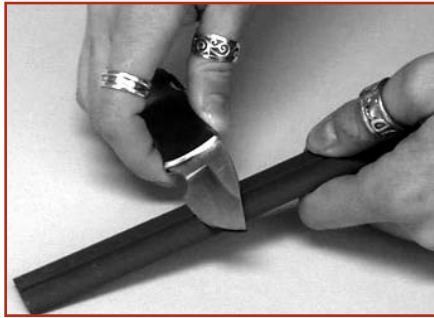
to use cutting boards so blades are not chipped or bent and counter tops are not damaged. They will learn that French chef knives, steak knives, paring knives and bread knives work best when used for their special tasks.

If your first lessons are in the workshop, you can teach your child about using knives to strip electrical wire or clean spark plugs.

Likewise, if your family hikes, bikes, canoes, camps or fishes, children can be taught about multi-tools, fillet knives, hunting knives and small folding knives for repairs, cutting rope and whittling.

Knife sharpening and knife care have basic rules. Teach them, reinforce them when necessary and follow your own rules. When your actions match your words, you have the most powerful teaching tool of all, the power of the positive role model.

Finally, respect zero-tolerance policies established by local schools. If your children attend public or private schools, assume the school has a zero-tolerance policy about carrying knives on school grounds, to school events or inside school buildings. Do not assume teachers or principals verbalize this rule. You do not want your child to be a local test case so you should clearly explain the rule to them and expect them to follow it.



When sharpening or cutting, always push the knife blade away from you or other people. Several types of sharpeners are now offered for serrated and non-serrated blades.
David Kowalski photo.

Sharper is Safer

Sharp blades are actually safe blades. It takes less energy to make a cut with a sharp blade. And a sharp blade is less likely to stick. When a blade sticks, the natural instinct is to apply more force or pressure. That's when slips occur and the user gets cut.

The other danger of using a dull blade is that the force of the cut can chip or bend the blade if it hits a hard object. Blade chips require using a

grinder to take off large amounts of blade steel to get a smooth edge again. Then we could overheat the blade and lose proper temper, making chips more likely in the future.

Bent blades just never seem to fit correctly into the handle or sheath. Quality modern folding knives are manufactured to close tolerances so a bent blade rubs on other blades or the handle liner. Bending the blade can even damage the blade pivot or mechanism. Cut, don't bend or twist.

More Safety Tips

Every quality folding knife has a bias toward closure. Once the locking mechanism is released and the blade is folded back toward the handle, pressure on the internal spring mechanism will snap it back into place once it gets to a certain point in the closing arc. Keep your fingers outside that arc.

If the blade does not lock in the open position, be very careful about pushing the blade forward. It could snap back into the closed position and cut the fingers gripping the handle.

On straight knives, also use caution when pushing the knife forward. If the handle does not have a "D" guard or other feature to stop your hand, you could run it up along the blade. Cutting tendons in your fingers or slicing your palm will send you to the hospital and require months of physi-



Various light oils made for metal lubrication provide a light coating on knife parts to protect them from chemicals, body oils, moisture and damp air. Apply with a soft cotton cloth.

David Kowalski photo

Keep you knife clean and sharp. Use it safely and responsibly. It will be a valuable, even life-saving tool for many years.

cal therapy. In a wilderness setting, such an injury could endanger your life.

When opening a knife, keep your fingers away from the arc of the blade.

Don't carry unsheathed straight knives or folding knives in the open position in your pocket. A fall could cause a nasty puncture wound or sever an artery. And don't climb or run with any knife in the open position. If you fall, the knife will follow you, ready to stick into a vital body part when you land.

Keep It Oiled, Store Dry

Knife blades and handles are made from a variety of materials. Some of them resist rust. Some don't, especially if the knife gets rained on. Even "stainless" steels can be harmed by water and some chemicals. Salt water is especially corrosive.

If your knife gets a lot of use, a light oil applied to the folding mechanism will keep it operating smoothly. Take a good look at it every few months and clean any dirt out of the handle or on the blades. A toothpick works well and won't damage the metal. Then re-apply a light coat of oil to keep water off the metal.

Body oils and moisture can also rust or stain knife blades. If you collect knives, apply a light oil when you put them in storage and wipe them down with an oily soft cloth after you hold them.

Knives should also be stored in a cool, dry place. Damp basements or garages will turn your beautiful collection into a pile of pitted, rusted steel.

Sharpening Secrets

If there's a sharpening secret, it's this. Do it more often. Once a blade becomes extremely dull, you've got to perform major surgery to restore the sharp edge.

Certain alloy combinations and forging processes will create a steel that holds a sharper blade edge for a longer time. If you only use your knife for opening letters, that may not be a big issue for you.

If your knife gets heavy utility use, then you will removing more small steel particles from the blade at a faster rate. That's why the blade gets dull.

Sharpening a blade also removes small particles of steel off the blade. But we take off thin, uniform layers of steel at a sharp angle to recreate that sharp edge. The recommended sharpening angle is 10-15 degrees. Depending on whether your blade grind or formation is convex or concave or straight will determine the ideal sharpening angle.

When sharpening a blade, always push the blade away from you. And if you take five strokes off one side of the blade, you will need to take five strokes at equal pressure at the same angle on the opposite side.

Keep you knife clean and sharp. Use it safely and responsibly. It will be a valuable, even life-saving tool for many years.

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