



How to select a knife or multi-tool for an activity

Different activities require different types of knives or multi-tools and retailers have to take various factors into consideration before recommending a knife or tool for a specific activity.

When selecting a knife blade for an activity, the factors to take into account would include hardness – edge/sharpness retention and the ability of the steel to resist indentation; strength; flexibility; toughness – how much energy it will absorb before breaking; , corrosion resistance and wear resistance.

A **fixed blade** usually has a tang – the part of the blade that extends into the handle – which makes it stronger than a folding knife. It is also more suitable for tasks that require a robust, hard-working, knife with a longer blade. Also, where it must be immediately available.

A **folding blade** pivots into the handle and has one of various locking mechanisms to keep the blade from accidentally closing during use. It is more compact and can fit in a pocket. It should ideally be possible to open it with one hand.

Blade materials

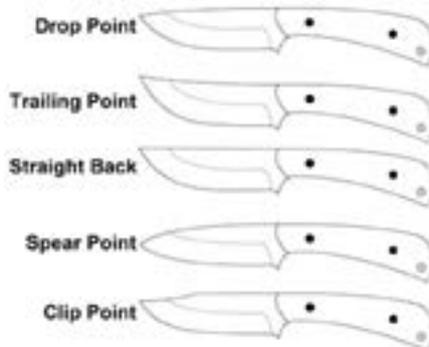
Stainless steel is commonly used for outdoor knife blades because it resists corrosion and rust and is easy to maintain, but, it is not totally rust-free and knives need to be treated with care to prevent corrosion.

- In order to be classified as stainless steel, the blade must at least contain 13% **chromium** – a shiny and brittle metal that is corrosion-resistant, but is less easy to keep sharp.
- **Carbon** ensures a better cutting edge and is easy to sharpen, but is more inclined to rust.

Stainless steel blades contain different elements in different percentages that determine the qualities. A few examples are:

- High quality CPM S30V is a premium stainless steel developed in the US especially for knives. It is a powder-made steel with a uniform carbide distribution and clean steel properties. It offers excellent corrosion resistance and superb edge qualities.
- The affordable 400 series is popular for knife blades because it is easy to sharpen and has fairly high corrosion-resistance. When a combination of stainless steel and carbon is used, HC will indicate a higher carbon content. For example, the 420HC is often used in sport knives, as it is economical and has high corrosion-resistance. On the other hand, the 420J2's low carbon, high chromium, content results in a tough, shock absorbing knife blade with excellent corrosion-resistance and a moderate edge holding ability, which is good for use in salt water.

Words: YAMKELA MKEBE. Compiled with the help of Bruce Woodroffe of Awesome Tools, Rob Beamish of Brentoni Distributors, Kim Romanis of Liteoptec, Patrick Franck of W.E.T. Sports and the articles: *Blade Boot Camp: A Buyer's Guide To Choosing Your Knife* from <http://gearjunkie.com>; *How to Choose the Best Knife for Hunting* from www.survivopedia.com; *How to Choose a Hunting Knife* from www.adventure.howstuffworks.com; *Hunting Knife Buyer's Guide* from <http://1source.basspro.com>; *What To Look For In A Diving Knife* from www.world-dive.com; *Why Picking the Perfect Pocket Knife is So Damn Hard!* from www.knife-depot.com; *How to choose a pocket knife* from <http://ironandtweed.com>; *Best Knife for Camping* from www.best-huntingknives.org; and *How to Choose the Perfect Survival Knife* from www.artofmanliness.com.



- The Sandvik series, especially the 12C27 and 14C28N, is anti-corrosive thanks to the addition of chrome and requires no special maintenance. Its carbon content gives an excellent cutting edge.
- 154CM is a more affordable, high carbon stainless steel with very good edge retention, good toughness and fair corrosion resistance.
- AUS has vanadium added to improve wear-resistance and sharpening. AUS-8 (or 8A) is a high carbon, low chromium stainless steel that balances toughness, strength, edge holding and resistance to corrosion.
- In the VG series from Japan the VG-10 is popular with brands like Spyderco, and it contains vanadium for a finer grain and cobalt and nickel to improve toughness. VG-1, for example, has very high performance for sharpness, edge retention and strength.

Blade profiles

- A **normal or straight back blade** has a curving edge and flat back.
- A **trailing point blade** has a back edge that curves upward, with a larger curve on its edge, providing a large cutting area, which is popu-

lar in skinning and filleting knives.

- The popular **clip point blade** runs straight from the handle until about halfway, then *clips* away to form a thin and sharp tip, which can be useful for cutting in tight places.
- The **drop point blade** is especially popular in hunting knives. It has a slow convex curve towards the tip, which gives it a stronger point, less likely to pierce organs, and a large slicing area.
- A **gut hook blade** has a sharpened semi-circle hook used by hunters to open the abdomen of the animal without slicing into the muscle.
- The **sheepsfoot blade** has a straight edge and blunt back that curves towards the edge at the end. It is good for slicing where a point is not needed.
- The **pen blade** is typically found on smaller folding pocket knives. It is symmetrically curved on both sides of the spine, but one side is sharp and the other blunt.

Hunting Knives

Hunting knives are designed for skinning, cutting and general use and they usually have a single sharpened edge.

Blade: High carbon stainless steel blades, like 420HC or S30V, are popular amongst hunters because they are tough and do not require much care.

- Interchangeable hunting knife blades gives the user a variety of options when performing different tasks.
- The drop point blade is ideal for skinning bigger animals, as the blunt point minimises accidental cutting. The wider belly offers a good skinning sweep that helps in getting through thick layers. It is versatile and can also be used for splitting ribs and pelvic bones.
- The clip point provides good control for detail work and cutting in tight places, although it is less efficient for skinning, splitting and gutting.
- A trailing point blade has a larger curve on its edge, providing a large cutting area needed for skinning.
- A gut hook is used by some hunters to open the abdomen without slicing into the meat.

Handle: The handle material should be non-absorbent and slip-resistant for easy working under all conditions. For safety, a hunting knife handle should feature a finger or thumb stop and a contour or other guard where the handle joins with the blade to prevent the hand from sliding forward on the blade.

- Wood, bone and leather are popular in hunting handles, as they are functional, warm to the touch, and pleasing to the eye. They are, however, less durable than synthetic handles and can be difficult to grip firmly when wet with water or blood from skinning. **To p54**



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- Synthetic (polymer, nylon) handles offer a combination of a secure grip and economy. They are also lightweight.

Fishing knives

Fishing knives are used for various activities like harvesting and cutting bait, cutting fishing line, filleting fish, etc. Your customer might want to purchase more than one knife, depending on the intended activities.

Bait knives traditionally have a broader blade with a serrated edge.

Filleting knife: The blade must be flexible. The average length is between 10-23cm and standard sizes are 10cm, 15cm, 19cm and 23cm long, depending on the size fish you are most likely to fillet. A fillet blade will be long, thin, and sharp with a non-serrated edge for fine cutting. Snook and other bigger fish will require a durable knife with a heavier, broader blade.

Blade: A rust-resistant stainless steel is recommended for fishing knife blades, which will regularly come into contact with water. The shorter and mid-sized blades should be flexible.

- Some fishing knives have both straight and serrated edges to add versatility.
- Clip point, drop point and trailing point designs are some profiles the experts recommend, as they are ideal for filleting, preparing bait and other tasks. Some fishing knives will have a notch in the blade with a small projecting spur for cutting fishing line.

Handle: Fishing knife handles are commonly made of plastic, a good quality nylon or soft rubber – often with rubberised overlays that can assist with traction in wet conditions. Wooden handles are used on filleting knives.

- Bright colours are ideal on handles as they are easy to spot in rock pools or in a boat.
- The handle should offer a good, comfortable, non-slip grip in wet conditions
- Some handles have indented finger grips that can add to better comfort and grip. These should, however, be the correct size for the user's hands.

Multi-tool: There are several multi-tools that have features ideal for fishing.

- Anglers will, for example, appreciate a multi-tool with features like pliers that can help with pulling the hook out, or a pair of scissors to help with snipping braid or line.
- A knife blade is essential to carry out tasks such as cutting open a fish, amongst others.
- Other fishing-specific features are tools that assist with sharpening hooks, cutting wires, changing lures, removing scales, etc.

Diving Knives

A diver uses a knife for various tasks: to cut through kelp, line, or rope, to tap a signal when needing to draw attention, to cut fishing line, dig for clams, to fillet and dress a speared fish, etc.

Size: A medium-sized, 10-13cm blade, is recommended because a too big knife can become heavy, awkward and pose dangers like accidentally cutting an oxygen hose. A medium-sized knife has the required heft and strength and can be strapped in various locations, including to arms and legs, for easy reach when needed.

Some divers prefer a small 5-7cm mini knife because it can fit anywhere, including clamped onto a hose for quick access.

Blade: High corrosion-resistant stainless steel should be used for diving blades, and your customer must be made aware that even these blades will rust if not cleaned after a dive. The shiny finish of cost effective 420 and 440 stainless steel gives less purchase to salt than a satin finish, reducing the chance of rust. Coatings that provide rust-resistance add to the cost of the knife.

- Titanium is highly corrosion-resistant and stay sharp longer, but it is more expensive. As diving knives are often lost, your customer might not want the extra outlay.
- H1 steel is also recommended as it contains nitrogen to compensate for the trace of carbon, which makes it more rust-resistant.
- A diving blade can be serrated, or straight, or can have a straight edge on the front and a serrated edge on the back. A straight edge is good for cutting fish line, nylon rope and other materials that can be sliced. A serrated edge is better for sawing through natural fibers like natural rope and kelp, but is more difficult to sharpen.
- A serrated sheepsfoot blade offers versatility as the blunt tip is less likely to accidentally cut through an oxygen line or wetsuit. A spear point can be used for precise cutting.

Handle: Synthetic materials like nylon, rubber and plastic that offer a good grip and will not be affected by salt water, is recommended. Some of the best-selling diving knives feature a thin coating of brightly coloured rubber over a steel handle, which offers a good grip, is easy to see underwater, and is slim enough that it isn't in the way when moving through kelp.

- A dive knife handle should be more or less as long as the blade, but if the blade is very short, a longer handle is recommended. It should be long enough to allow the diver to get a full, firm grip, with all four fingers around the handle. Some handles are notched to ensure the exact placement of each finger and others feature a non-slip grip. The handle should offer a firm grip even when the diver is wearing gloves.

Other features: A diver might want to strap his knife to his leg or arm, on a dive belt, or buoyancy compensator. It is important that the strap is comfortable and in a position that is easy to reach with one hand.

- A sheath is important to hold the knife securely and allow the diver to draw the knife with one hand. Sheaths are sometimes made of plastic, which does not blunt the knife.
- A lanyard hole allows the diver to attach the knife to a wrist thong.
- An effective guard between the handle and the blade helps prevent the diver from cutting his fingers accidentally on the blade. A hook on the bottom side for the fingers and a thumb rest on the top side are also handy.

Camping

A camping knife does not necessarily have to be bigger to perform better – a 23-28cm knife should suffice. But, it needs to be versatile and

perform a number of tasks around the campsite, from food preparation, cutting rope, digging, prying cans open, chopping wood, among many others.

Blade: A non-corrosive stainless steel blade, which is not too big to perform small tasks, nor too small to be used for more rugged tasks like batoning, is preferred. A 10-15cm blade should be ideal. A camping knife should have a single-edged blade with a flat spine to be more versatile.

Handle: There are various handle options for camping knives, ranging from wood, stainless steel, rubber, bone, plastic, etc. The basic rule is that a handle must be the right size for the user, e.g. he should be able to wrap his fingers around it with no difficulty.

Multi-tools: The many diverse tasks that need to be performed around a campsite, a versatile multi-tool is almost a must-have.

- Some basic features that will come in handy include eating utensils, a cork screw, a can and bottle opener, scissors and pliers for basic repairs, a knife with combo edge and screw drivers.
- Your camping customer will also appreciate features like a sharpener for straight and serrated blades, a fire-strating rod, a hammer to knock in tent stakes and a whistle.

Pocket Knives

Pocket knives come in different shapes and sizes, depending on the functionality, with single, or multiple blades, offering the user a variety of options. A folding blade is recommended because it is safer to carry in a pocket, without causing accidental harm, provided it has a reliable locking mechanism. The blade and handle should work together without excessive *play* in the open position.

Blade: A small blade of 7cm or less is easier and more convenient to carry around. A medium blade (7-10cm) is small enough to be conveniently portable, but can perform a wider range of everyday tasks.

- A large blade (10cm upwards) can perform the same tasks as a fixed blade knife, but the fact that it can be folded for convenient carrying, gives it an upper hand. Large blade pocket-knives are, however, not practical for everyday use.
- Pocket knives have serrated or straight edges, or both. A straight blade is better for everyday activities that require a clean cut, but a serrated blade is better for sawing through cardboard, or rope, cutting bread, etc. A combo edge can perform a greater variety of tasks with ease. It is important to take note of where the serrations are placed within the blade.

Handle: There are an endless variety of handles available for pocket knives and some of the popular materials include bone, wood, plastic, stainless steel, aluminium, rubber, etc.

Multi-tools fall under this category as they are popular items to carry around for everyday use. They are available in different sizes, ranging from minimalist, ultralight designs, to rugged workhorses with full-size pliers. Choosing a multi-tool to carry around in a pocket should be less about the number of tools it has, than the tools your customer will require.