KNOTS

Knots in general are only as good as the person who ties them. We recommend tying knots often and double checking them in every situation. Knots are designed to save lives, increase convenience, and solve problems...when used properly. Practice at home if you are unsure about how they are tied, before you go climbing, set anchors, or involve persons less experienced than yourself. Seeking professional assistance is always recommended. We designed our [Ground School](#) so you can be more aware, more patient, and safer in all outdoor activities.

*Aware, patient, and safe climbers, canyoneers, and wilderness travelers live longer.*

**Doubled-Back Figure Eight**

This knot is the industry standard for any situation where human body weight is attached to a rope: climbing, mountaineering, self rescue, rappelling... This knot tightens when weighted and should always be backed up with a [Fisherman’s Knot](#).

**Eight on a Bight**

This variation of the figure eight should only be used for body weight when backed up.
**Bowline**

A non-tensioning knot!!!! This knot is great for tying your tarp to a tree, your dog to a fence post, or towing heavy items. It is not recommended for any situations which require the knot to hold human body weight. Even when backed up, this knot has failed. Use at your own risk.

**Grapevine**

The only recommended way to join two ropes of varying thickness. E.G., an 11mm rope tied with a 10.2mm while descending or lowering. Play with the tension and number of times you rap the rope around its partner. The harder and heavier the rope is weighted, the tighter the knot becomes. Half a Grapevine, also known as a **Fisherman's Knot**, is a great back up knot.

**Prussik**

A classic tension hitch. A minimum of three turns around the rope creates the necessary friction for ascending, for safety, for self rescue. Prussiks and the variations which follow (Hedden, Bachmann, Klemheist) are only recoomended to be tied with 5mm Spectra Cord or 7mm cord that has a minimum fall rating of 1600lbs.
Bachmann

The Bachmann works well for ascending fixed ropes as well as pulling stubborn or twisted ropes from a descent. The carabiner acts as an ascender handle. When weighted, the biner and cord cinch against the rope. Best used as a pair. So simple. Why would anyone get technical without them?

Klemheist

A European technique that is more straight forward to tie than the Prussik. A
minimum of three turns around the ascending rope is required for successful use.

**Water Knot**

The only recommended knot for tying tubular webbing. Tapes should be at least 3 inches long. The water knot is not recommended for tying Spectra or Kevlar beaded tape.

**Hedden**

- only works when the width of the webbing is no more than twice the width of the rope it is tied around, otherwise it will not tighten on the rope. (E.G. - 1 inch tied tubular will not work on a rope that is less than 11mm. A sewn 9/16 sling will work on ropes 5/16(8mm) or greater.)