

## TECHNIQUES, TRAINING & GEAR REVIEWS.

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### Bowline On a Bight and Fusion Knots.

When I joined Cave Rescue a couple of years ago, I was introduced to the Bowline on a bight and the Fusion knots.

These two knots completely replace the need for a Figure 8 on a bight, which has one major issue, that of being difficult to untie after being ascended by a group of cavers, especially with thinner ropes.

In rescue training, we practice pick-offs and load ropes heavily, so it's great, at the end of the day, when all the knots come undone with ease.

It is very easy to clip into the loops of both of these knots, at rebelay, if the carabiner is a little out of reach. Unlike a Figure 8 on a bight, the loops stay open, just above the knot, allowing a carabiner to easily clip in or out, even when the rope is loaded.

### Bowline on a bight

The Bowline on a bight is created by starting off with the usual overhand but before cinching up, open up the bight and pull over the entire knot (Photos 1, 2, 3, 4).

The only issue with this knot is that it is not ideal for Y-hangs. It has the problem of moving when loaded away from the intended position. There is also the risk of sliding when clipping in with a cowstail on Y-hangs (Photos 5, 6).

It is more than adequate for single bolt connections, and it is also a very short knot, allowing for very efficient rigging.

### Fusion Knots.

The Fusion knot is more commonly known nowadays as the Karash knot. The Fusion has been around for more than forty-five years but there isn't much material on the internet under this name.

Then again, the internet wasn't around more than forty-five years ago either!

In more recent years, Mike Karash has re-invented the knot and decided to name it after himself. So, showing respect to its original creator, I am sticking with the name Fusion.

The Fusion is perfect for Y-hangs. It is easy to adjust the loop lengths to suit various bolt positions (Photos 7, 8, 9, 10, 11, 12, 13).

If you do start using either or both of these knots, I think you will love the ease of use and how easy they are to untie.

If you are ever unsure what knot to use, to save any confusion, use the Fusion.

JSSS

**Photos 1-6, on page 169, by Chris Curtis.**

**Photo 1:** Step 1: Tying the Bowline on a bight. Start with overhand on a bight knot.

**Photo 2:** Step 2: Tying the Bowline on a bight. Put the bight over the knot

**Photo 3:** Step 3: Tying the Bowline on a bight. Put the bight below the top two strands of the knot.

**Photo 4:** Step 4: Tying the Bowline on a bight. Dress and set the knot.

**Photo 5:** Bowline on a bight, with good short loops.

**Photo 6:** Bowline on a bight, with a Cowtail clipped into both loops.

