Avoiding the Drop

Your partner leads up a new pitch. You haven't climbed here before but the climbing looks great. Your partner decides to lower off the climb after constructing a bomber anchor. You are congratulating him on a great climb and suddenly you feel something wrong. The rope passes through your brake hand and in an instant, the belay device. This sounds like an unlike situation, but it has happen to both beginners and experts alike. I know of three cases were this has happened. Two of the situations were with expert climbers.

Creating Good Habits

In climbing, one should strive to create habits that are safe in a variety of situations, not specific to a single area. We have our home crags that we climb at all the time. We learn what we can do and it becomes our habit. In areas that allow you to lower off so your partner can top rope the pitch, climbers rarely tie into both ends of the rope. This habit can become a liability in new areas or with different equipment. For instance, one such accident occurred when a person new to the area brought a 60m rope. Without questioning the length of the rope, a pitch was led and the leader was dropped as he was being lowered off. This was due to the fact the route required a 70m rope. There wasn't a guidebook for this area, but guidebooks don't always have the information either. I have also seen this happen when the climber unknowingly goes to the wrong set of anchors, thereby increasing the length of the pitch. Either situation could happen to anyone.

Closing the System

When climbing single pitch terrain, function as if you are going to climb multipitch routes. When climbing multipitch routes, it is customary for each climber to tie into each end of the rope before anyone leaves the ground. This is called *closing the system*. This practice has advantages. It prevents the end of the rope getting away from the belayer on long pitches. The transition from belaying to climbing is faster if both climbers tie in at the same time. If the leader falls and needs to be lower it prevents the end of the rope passing through the device if the leader is 150' up a pitch. All of these are good reasons to close the system before starting up a multipitch route. It makes sense and is a common practice.

However, this practice is infrequently used in a single pitch setting. Closing the system has real advantages in a single pitch setting too. It speeds up transitions, prevents lowering off the end of the rope, and allows for easy and shock absorbing anchor connections.

In a single pitch setting, create the same practice by either having the belayer and the climber tie into the rope with figure 8 knots or tie a double fisherman's knot on the belay end of the rope. Tying in both climbers allows for a faster transition to second climbing and also has the advantage of easily tying into a ground anchor with a dynamic line rather than a static sling. At times, it is an advantage to create a ground anchor for the belayer and using the rope is an efficient way of accomplishing this.

The Stopper Knot

The other method is to simply tie a double fisherman's on the end of the rope. This prevents the rope from passing through the belay device. I have seen belayers walk back away from the cliff as the climber climbs up the cliff. They usually do this so they can see the climber better. On top rope set ups that are close to *half the rope length* (near 100' for a 60m rope) you don't have much room for error. If the belayer moves back too far, they will not have enough rope to lower the climber and the end of the rope will pass through the device before the climber safely reaches the ground. This tends to happen more when the ground drops down and away from the cliff. When the belay moves back, not only is the climber moving away from the cliff, they are also going down hill. The best knot to safe guard agaisnt this is a double fisherman's. Be sure to pull this knot tight, you do not want this knot to loosen up.

Equipment issues

Not all ropes are the same length. Be aware that rarely are two 60m ropes the same length, even from the same manufacture. I have had two 60m ropes with differences of 18 feet. In the past, climbers have practiced cutting the bad ends off of ropes after heavy use. This shortens the rope over time. Additionally, there are many routes going up these days that require 70m ropes to lower the leader safely. This can cause problems when you use a different or new rope on a set up you are familiar with.

Practices

Closing the system in Single Pitch climbing

1. Both the climber and belayer tie in with figure 8.
2. Climber leads the pitch to the anchor
3. Builds the anchor
4. Belayer lowers leader to the ground
5. Leader pulls the rope through the system until the rope is tight on the belayer and puts the belayer on belay.
6. While the rope is getting pulled through the belayer puts on his or her climbing shoes. Usually the belayer will be on belay about the same time they have their shoes on.
7. Second climber climbs the pitch and:
    a. either is lowered if the climb is going to be climbed again
    b. or constructs a rappel so the party can go to the next route.

Closing the system and Ground anchors

1. Both the climber and belayer tie in with figure 8.
2. Belayer places a sling or cordelette around a tree, boulder or solid object.
3. Belayer pulls the necessary amount of rope from his or her tie in point on the harness.
4. Then clove hitches the ROPE into a carabiner on the sling around the tree.
5. Make sure the rope in on the brake hand side of the belayer.
6. The clove hitch is used to adjust to the rope to proper length.

7. When it's the belayer time to climb, simply unclip the clove from the ground anchor.

This system allows for adjustability of the anchor length and more dynamics when catching a fall. The rope and knots absorbs energy, verses clipping directly into a ground anchor with a sling. This makes for an easier catch if the climber falls. One caution, do not make the anchor line (the rope between the climber and ground anchor) too long. This can cause the belayer to get lifted up some and possibly cause the belayer to loose control when catching a fall. Always keep the belayer close to ground anchor.

Knots

The ideal stopper knot is the double fisherman's knot. It will jam against most belay and rappel devices. The only exception is a figure eight rappel device. This device is rarely in use these days and is more commonly seen in caving and canyoneering.

Double Fisherman's

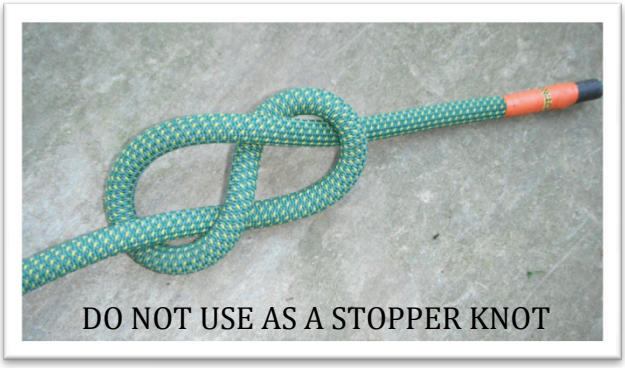
1. Ideal stopper knot
2. Make sure the knot is tight
3. Have 6" of tail
4. Also use on rappels
5. Get in the habit of tying this whenever top roping climbs.


STOPPER KNOT

A Knot to Avoid

It seems to be becoming a practice in some areas to use half of a figure 8 as the back up knot.

DO NOT USE THIS KNOT. This knot has been shown to roll off the end of the rope failing to jam against the belay device.


DO NOT USE AS A STOPPER KNOT