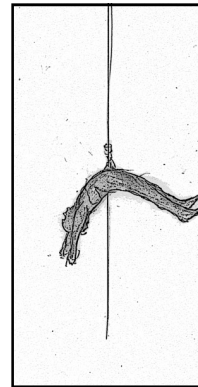
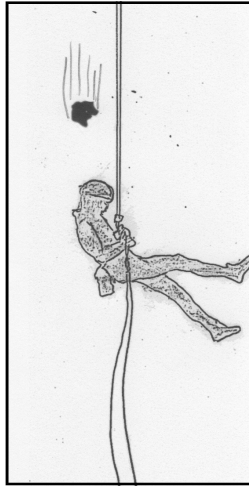
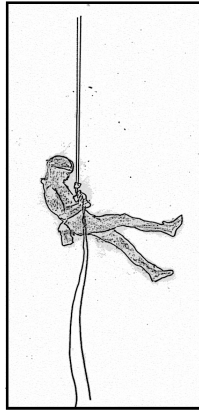


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Well it could happen to you!

Abseiling has always been one of those things that has presented climbers with more degrees of danger than the climb itself. Lack of concentration after a long day, anchor points not being up to their job and once hanging on the rope you don't have much space to run away if a rock decides to depart from the rock face.

For many years, we at Compass West International school of Rock Climbing in Spain have demonstrated to clients how to safely abseil from multi pitch climbs etc. One thing that has stood out was that they all have been shown how to back up their abseil with a jamming knot- prussik- or auto-block knot.

On first impressions one would think that this is indeed a wise thing to do and yet we at the school teach a completely different method. One that doesn't encourage the use of these knots. **unless abseiling alone.**

We teach mainly multi pitch and leader placed protection climbing; our main climbing takes place on natural mountain crags. On this type of climb you often need to abseil after completing a route. There are times when you come across loose rock on ledges and on the rock face. Some of this loose rock can also be hidden in vegetation on the crag. One of these rocks could be dislodged onto a descending climber, caused mainly by the rope above dislodging it. It is because of the many instances of which we have seen this happen that we devised a different system of protecting each other when abseiling.

Two climbers have climbed their route and are abseiling back down.

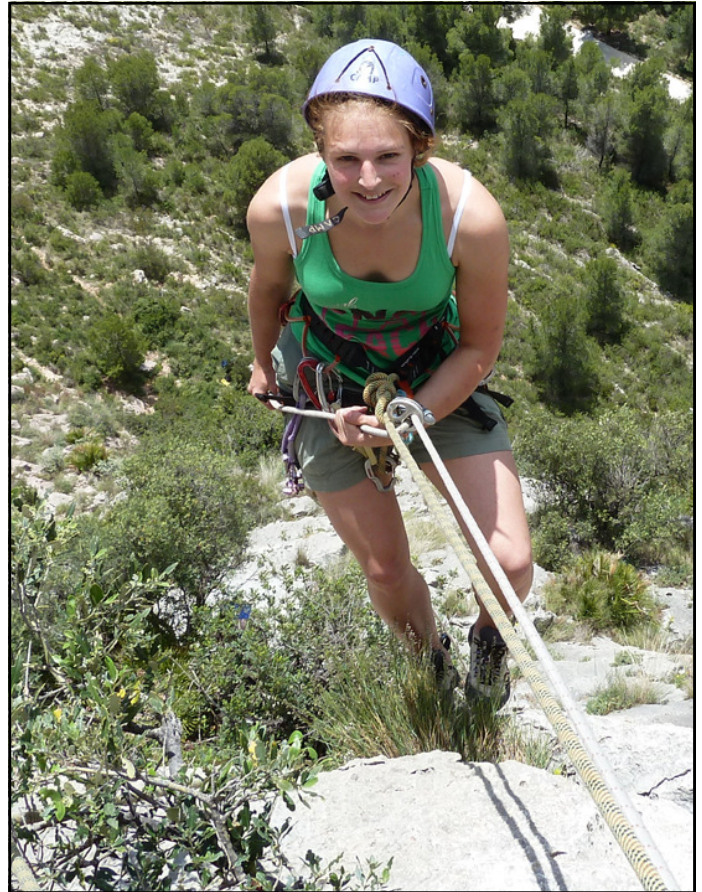
Scenario one.

The first climber down starts the abseil, down a doubled rope, with the auto-block. To avoid any chance of sliding off the ends of the rope a knot has been put on the end of it. On the way down the rope above dislodges a loose rock. This can often happen as you change direction on the line of the abseil. It hits the climber and he is either knocked unconscious or badly injured. Fortunately the auto-block has done its work and stopped the climber sliding down the rope uncontrolled.

We are now left with a dilemma of the climber above being left on the belay ledge with an unconscious or badly



The normal Auto-block



A student using
a safety rope



Double Crab Friction

Fig one



Single twist Friction

Fig 2.



Double Twist
Friction

Fig 3.

injured climber hanging below and worst of all the rope is now tight so it is impossible for him to use these ropes to abseil down to him.

If this climber has carried escape and safety tackle with him (prussik loops or rope mate) he can do a number of things to correct the situation. All are time consuming and require a great deal of time, skill, practice and quite a lot of strength.

Scenario. Two.

This time the first climber down has safely reached the next belay ledge and is waiting for his friend to do the same. The second climber is half way down and again a rock has been dislodged and hits this climber on the head. He is now hanging on the rope unconscious or injured. The auto block again has done its job and locked him off on the rope. There is nothing now that he can do to help himself. The climber below has also only a limited amount of actions he can do, all taking time and effort and all dependent on this climber having the correct gear with him and the advance knowledge to accomplish the task of rescuing his partner.

Scenario three.

You are making your way back down after completing a successful ascent of either a rock climb or mountain route. The line of the abseil down is unknown. The first climber down starts off on the abseil. Lower down he decides it's the wrong line. He now needs to retreat back up to the belay above. Having used an auto block he is now blocked on the rope.

He can either start to prussic back up the rope or attempt to climb the rock. His partner can arrange to use an assisted lift or full pulley system. All of which takes time and skill.

Advanced self rescue is taught on most of our courses at the school.

Now let's review an alternative system.

When ever you abseil with you a single rope you need to halve the rope. If you have double ropes you have two ropes.

This is a simple and effective way of avoiding most of the above problems.

In the case of a single rope. You double the rope. You now fix the middle of the rope to the abseil anchors with a. Locked off Alpine Hitch or Alpine Butterfly (both are easily untied) or Figure of eight knot

One end is thrown down the line of descent- the other end is fixed to the descending climber with their preferred knot, this now becomes a safety line.

This safety line is then passed through the friction device. The device is either attached to the second climber (as in a normal belaying position) or fixed to a separate belay to make a direct belay, making sure the device is below chest height!

The first climber down now has a safety rope attached to them as they abseil.

In the case of a double rope you throw the one rope down to abseil on, the other is used as a safety rope. This rope will obviously be thinner than a single rope so more friction needs to be added to the abseiling device. (See section on adding more friction)

The first scenario.

The climber is now hanging on the rope below you and unconscious or injured.

The simplest action here is to lower him down to the next ledge (double check that the rope does reach the ledge below, which should have been done when considering the abseil). Not having an auto block on the abseil rope you can now use the safety rope to lower the injured climber. Going down is always easier than

using a lifting system to get them back up!

If the climber below is injured then you may have to descend the rope to administer first aid. You can now lock the safety rope off. Pull a spare length of the abseil rope up. This is now possible as there is no auto block on it. Once you have sufficient slack rope you can arrange to do an abseil. As you will be abseiling solo, without the safety rope now is the time to use the auto block system. You will also need prussiks to climb back up if you have to arrange further abseils, such as with a pick up. If you are considering doing this a counter weight abseil will be needed and can be performed right from the start.

There are more things one can do here but that will need another complete article, and something we teach on our advanced self rescue courses.

The second scenario.

Your partner is now hanging well above you and is either injured or unconscious.

Your job after completing **your** abseil is to **protect your partner as he abseils**. After all he will not have an auto block on the rope. You will be protecting him by holding the ends of the rope, ever ready to take over the abseil by pulling on the ropes. In this instance, he is hanging on the rope and cannot help himself and you must take over. Releasing your grip will usually release the friction on device of your partner and will usually allow their own weight to let them slide down to you. If you find the friction initially is too great just shake the rope to break the friction. You can control their descent this way.

Scenario three.

The descending climber wishes to come back up after checking the line of descent.

You already have a safety line on him and he can safely use that to climb back up. If he has to prussik up his abseil rope you can also assist him by taking the safety rope in tightly or even using an assisted hoist or pulley system.

The above system has been used for many years now at our school and we have found it to be very reliable. We also use it on own personal climbing. It takes no longer than using an auto block but is much safer.

Foot note. If you feel that your belay isn't that safe and you MUST use it then having a safety rope on the first man down protects that one climber. You will have added your body weight and stance to the anchors. The danger will come when you have to abseil.

Your partner will have tested the abseil already and would have weighted the rope previously. He can limit the amount of risk for you by placing gear on the abseil rope whilst he descends. If the anchor goes then the last man down will not go the full length of the rope. Little consolation, but far better than a full length fall. It's also a good idea for the last man to attach a sling and crab from his harness to one side of the rope. This will avoid him sliding off the end of the rope should the belay anchor go, as would happen in the case of a sling breaking etc.

Adding more friction.

Using just one single rope or one side of a double thin rope. This method of protecting the team on an abseil can still be used if thin ropes are being used. Obviously thinner ropes, or new ropes give less friction in the abseiling device and are more difficult to hold due to their lack of diameter or smooth surface. This can be overcome by increasing the amount of friction within the device or adding to it.

NB. Having a safety rope allows the belayer to take some of the weight on the belay device as the climbers descend!

1. Doubling up the Karabiner, side by side (fig 1) is one way.
2. Adding further friction by using an extra karabiner below the main device (Fig 2 & 3)
3. Not quite as effective but one can also wrap the rope around the body.

All of these should be thought out BEFORE the start of the abseil.

Abseiling can be the most dangerous part of your day so take as much care as you possibly can. Always carry at least two prussik loops or Rope mate type devices.

Rowland Edwards. ABMG. IFMGA. Is one of the directors of Compass West ISR. based in Finestrat Costa Blanca Spain. He first became a guide in 1968.

He, along with Mark his son, run climbing courses in Spain mainly teaching traditional style leader placed gear climbing.

Courses teaching more advanced self rescue and safety on rock can also be arranged either in Spain or in the UK. Sponsor, Boreal. Spain.