



The Trad Climber's Guide To Problem Solving

Self Rescue Techniques



VDiff Climbing

Sample



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Sample



Self-Rescue – Introduction

Having a good knowledge of self-rescue skills is essential for any climber. The more effectively you are able to improve a poor situation (e.g; if you are able to escape the belay and descend with an injured partner to the ground, instead of waiting in the middle of the crag for assistance), the less risk is required of rescuers and the quicker you and your partner will receive help.

Your self-rescue skills should be accompanied by a solid understanding of first aid (not covered in this manual). We recommend attending a wilderness first aid course to brush up on your skills.

If you are capable of rescuing yourselves, you may not need to call for outside help at all, if that is even an option. Depending on the weather

and your position, a rescue may not be possible. Many remote areas do not even have a rescue service available.

The self-rescue techniques described in this manual are merely guidelines. Many of the techniques simply will not work in the pickle you actually find yourself in. For example; you cannot safely descend if there is nowhere to make a reliable anchor. You cannot safely escape the belay and rope solo to an injured leader if you have no gear to make an upwards pulling anchor. You will often have to use your creativity to find a solution that works for your particular situation.

Make a solid plan before attempting any kind of self-rescue and consider the additional risk it puts on you and your climbing partners.

In general, if you can't solve your problem by escaping the belay and setting up a tandem abseil for you and the injured climber, it is unlikely that you'll be able to effect a safe rescue. In this case, you should consider calling for help or leaving the situation (if possible) and going for help yourself.

However, leaving an injured partner alone adds a whole other set of problems to the equation. If it's possible to call for help (either using a phone or shouting to nearby climbers for assistance), this is usually by far the best thing you can do if you are not confident solving the problem with your current set of skills.

Escaping the Belay

The *belay escape* is a technique whereby the belayer frees themselves from the responsibilities of belaying. This fundamental skill is necessary for many rescue situations.

Situations when you may need to escape the belay include:

- If your partner needs hauling through a crux while following
- If you need to descend to your partner to give immediate first aid
- If your partner falls and is injured while leading
- If you need to detach yourself from the rope to get outside help

The Belay Escape – How it Works

Any safe version of the belay escape involves the same four checkpoints:

- 1) Get hands-free
- 2) Transfer climber's weight to anchor
- 3) Transfer climber's belay to anchor
- 4) Remove all excess prusiks, carabiners and knots

The belayer can detach from the rope completely if needed. The end result is a system which can be released under load and can be used again as a belay. Returning to belay mode is often needed once a rescue has begun.

The full belay escape system is described in this chapter. Depending on the situation, you may not need to complete all of the steps (e.g. the process is much simpler if your partner is able to un-weight the rope). However, it's important to know the complete system before taking shortcuts.

Three different methods are described. These cover belaying:

- 1) From your harness (anchor is within reach)
- 2) From your harness (anchor is out of reach)
- 3) Directly from the anchor (e.g. using guide mode)

The Belay Escape – First Considerations

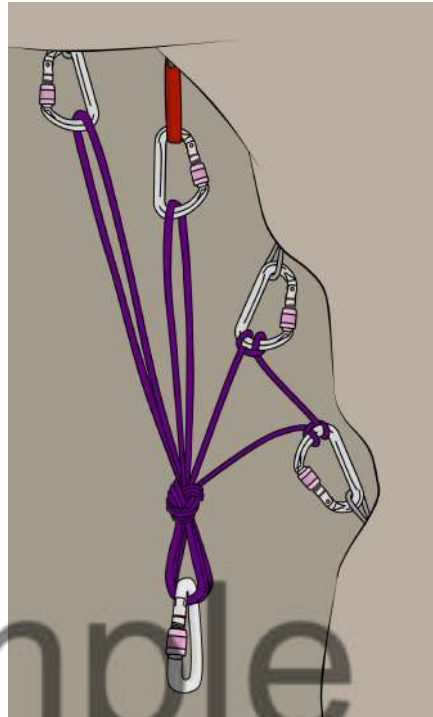
Before starting a belay escape, make sure it is the best course of action for the situation. Maybe a much simpler option exists, such as lowering your partner to a ledge, or getting them to prusik up.

Depending on the direction of loading and your course of action after escaping the belay, you may need to make your anchor stronger. Some rescue techniques (such as hauling) exert high forces on the anchor.

Beefing up the anchor is straightforward if you are belaying a second and there are protection points available within reach. With some creative sling craft and fine tuning, you may be able to equalize a few extra pieces to the belay.

If you are belaying a leader on a multi-directional anchor where there is only a single piece holding an upwards pull (example shown), you will need to add gear or build a new anchor before escaping the belay.

This is very difficult (or impossible) if the leader has the whole rack with them. However, you may be able to adjust the existing anchor pieces and cordelette to hold an upwards pull.



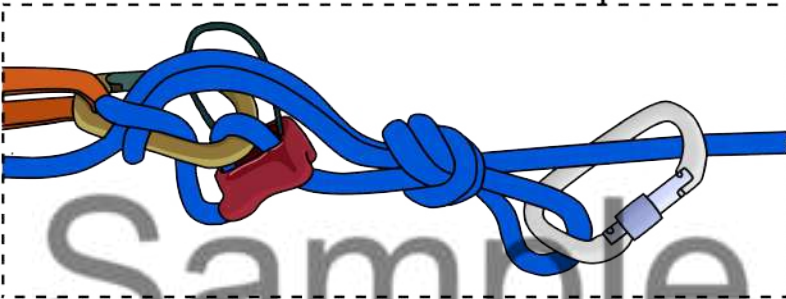
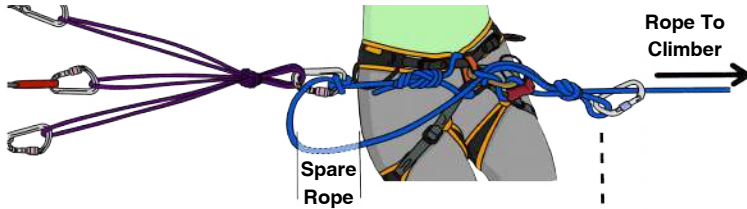
Make sure the anchor still protects you from a fall while you are adjusting pieces.

As a last resort, you might be able to rope solo (see page 113) or prusik (see page 116) a short distance to retrieve gear for backing up the anchor.

The Belay Escape – When Belaying from your Harness (Anchor within Reach)

Step 1

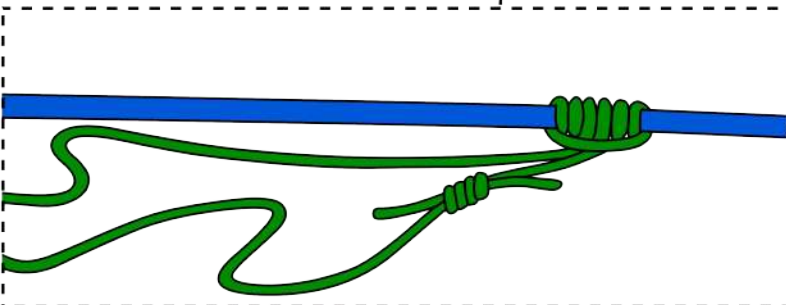
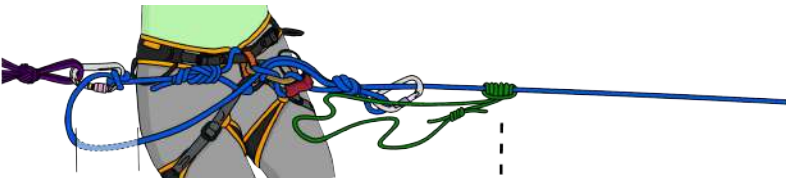
Get hands-free by tying off your belay device with a mule-overhand (see page 142).



Step 2

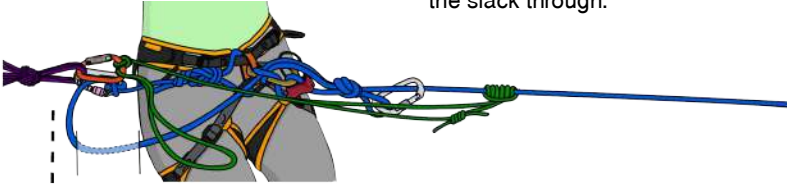
Tie a prusik hitch on the weighted rope with a long cordelette. Make sure the double fisherman's bend which joins the cord is close to the prusik hitch.

If you don't have a long cordelette, you could use a short prusik cord attached to 120cm sling.



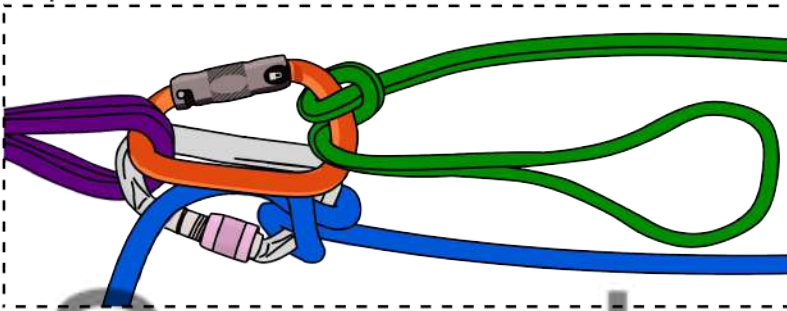
Step 3

Clip a screwgate to the master point of the anchor.



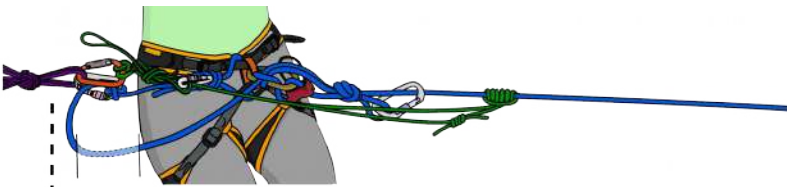
Step 4

Tie a munter hitch with the cordelette to the screwgate. Flip the munter so it's in the lowering position and pull all the slack through.



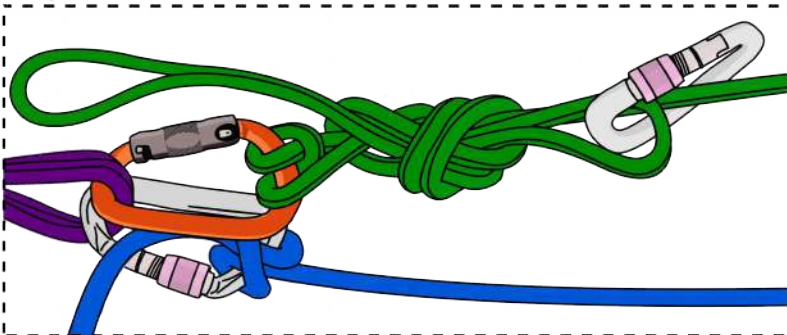
Step 5

Add a mule-overhand to the munter hitch on the cordelette (see page 141). This creates a munter-mule-overhand.



Step 6

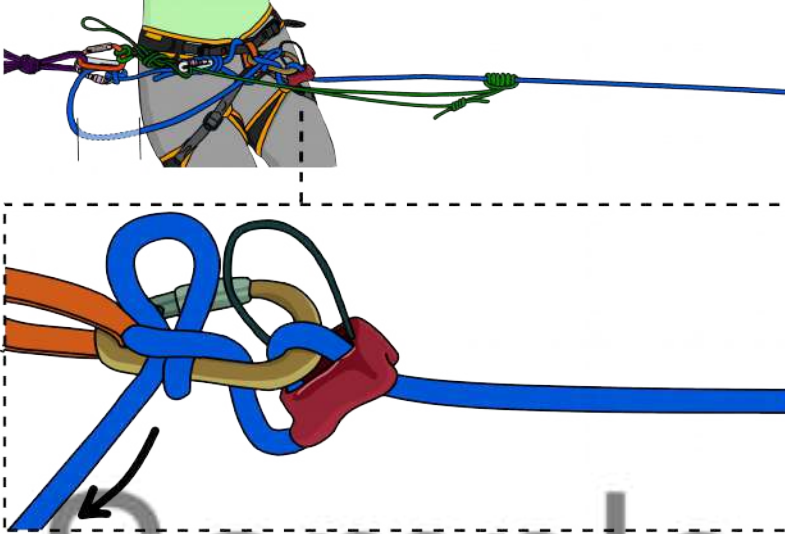
Slide the prusik along the rope towards the climber to take up any remaining slack in the cordelette.



Step 7

Carefully release your tied-off belay device and let a small amount of slack through so the climber's weight

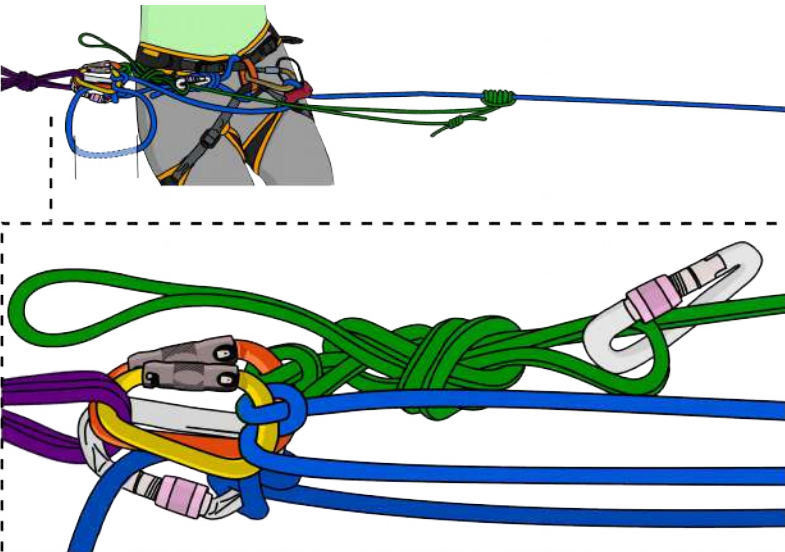
is transferred to the prusik. You are no longer hands-free, so keep one hand on the brake rope for the next 3 steps.



Step 8

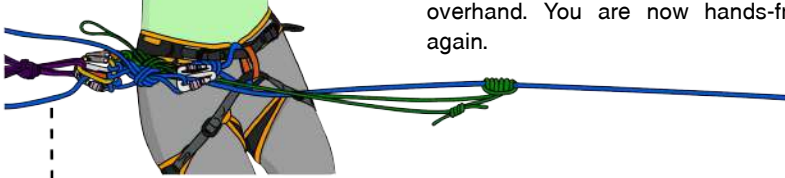
Attach a screwgate (yellow carabiner in this diagram) to the master point and tie a munter hitch on it with the

brake rope. Pull most of the excess rope through so there is just enough slack to remove your belay device.



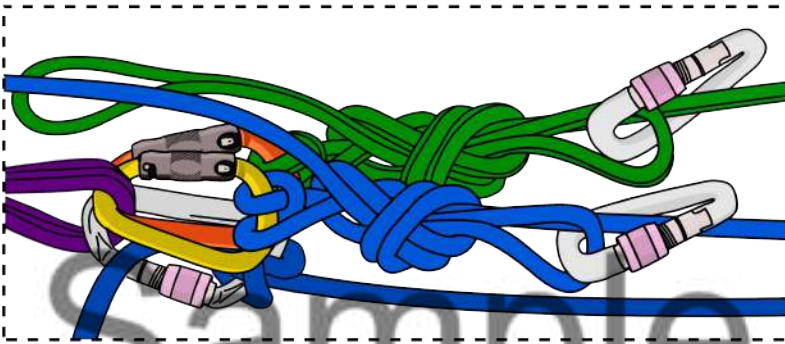
Step 9

Keeping hold of the munter's brake strand, remove your belay device.



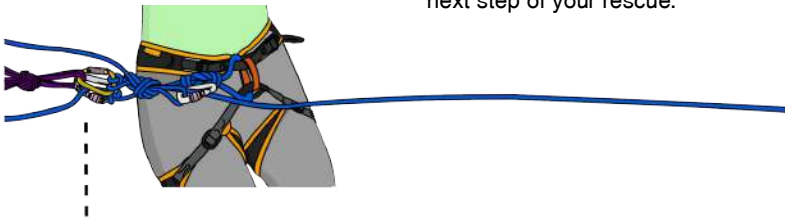
Step 10

Pull the extra slack through the munter hitch and flip it so it's in the lowering position. Finish the munter with a mule hitch and an overhand knot to make it a munter-mule-overhand. You are now hands-free again.



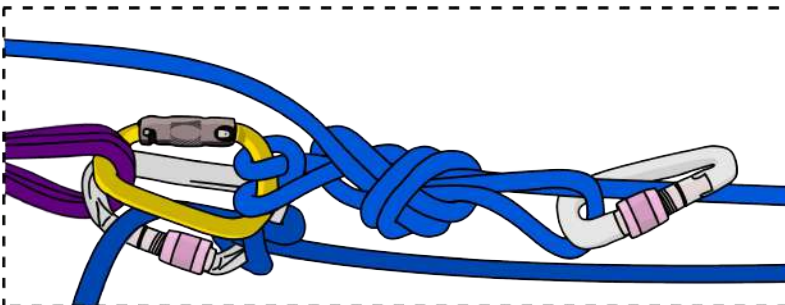
Step 11

Release the mule-overhand from the cordelette and use the munter to transfer the climber's weight from the cordelette to the rope.



Step 12

Once the climber's weight is fully on the rope, remove the cordelette completely. You have now escaped the belay and can move on to the next step of your rescue.



Tandem Abseiling

Tandem abseiling means two people descending with the same device. It is most useful when descending with an injured climber.

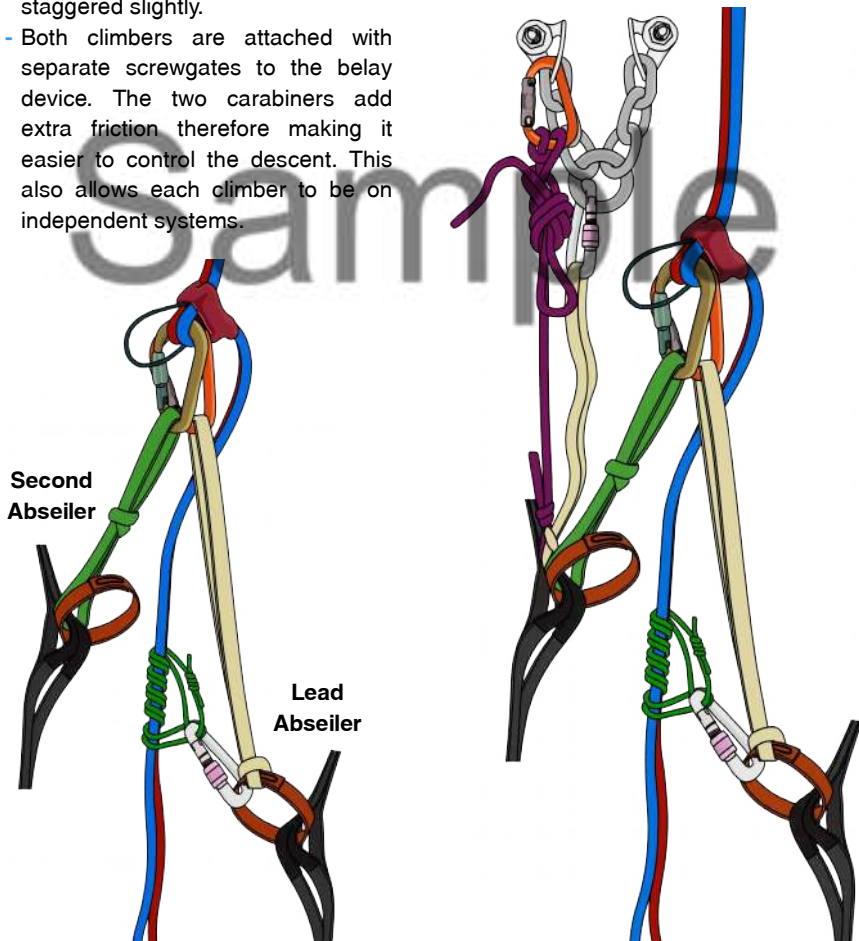
A simple tandem abseil setup:

- 'Lead' abseiler is attached to a belay device with a 60cm sling girth-hitched through their belay loop.
- Lead abseiler uses a prusik.
- Second abseiler is attached to the same belay device with a 60cm sling doubled through their harness. This allows the climbers to be staggered slightly.
- Both climbers are attached with separate screwgates to the belay device. The two carabiners add extra friction therefore making it easier to control the descent. This also allows each climber to be on independent systems.

Multiple Tandem Abseils

If your partner is incapacitated, you should attach them to each station with a releasable clip-in (such as a length of cord tied with a munter-mule-overhand), backed up with a sling. Pre-attach this to their harness before you begin the descent.

Because of the doubled weight, you might benefit from adding extra friction to the abseil (see page 34).



Chest Harness

You could make an improvised chest harness to keep your partner in a better position during the descent.

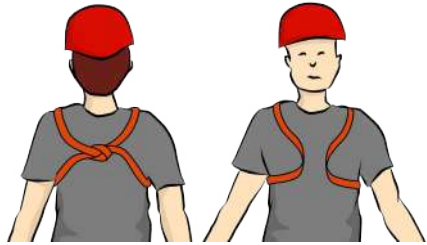
Step 1

Tie an overhand knot in the middle of a 120cm sling.



Step 2

Insert your partner's arms into the loops, as if you were helping them put a jacket on.



Step 3

Clip the two ends of the sling around the abseil rope (no knot is needed — the carabiner should run freely down the ropes). An alternative is to clip the chest harness to your partner's abseil

sling. Be careful not to descend past your next abseil station — prusiking back up with an extra person hanging from your harness may be impossible.

