

Rescuing a Follower

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This document describes a procedure that a leader can use to rescue an injured follower on a multi-pitch climb. The procedure described here consists of a series of rappels. Note that this may not be the right choice in all circumstances - in some cases, rather than rappelling to the victim, the leader might need to hoist the victim instead (e.g., using a mechanical advantage system somewhat similar to the ones used in crevasse rescue). We won't be dealing with hoisting in this document. See *The Mountain Guide Manual* by Chauvin and Coppolillo or *Self-Rescue* by Fasulo for a comprehensive discussion of other scenarios.

The procedure described here consists of two phases - first, a *counterbalance rappel* to descend to the victim, administer first-aid, and get down together with the victim to the first good anchor below, and second, a series of one or more *tandem rappels* together with the victim to get all the way back down.

Phase 1: Counterbalance rappel.

The scenario begins with the victim falling, and the victim's rope loaded. We're going to describe here the most challenging variant, where the victim's weight is on the rope (i.e., the victim is not on a ledge, perhaps hanging in the air).

We're going to assume that the leader has been belaying the follower using an ATC in guide mode, as is common practice on Mountaineers' climbs.

Start by arresting the fall (Fig. 1), then go hands-free by tying the "catastrophe knot" (figure-8 on a bight) on the brake strand coming out of the ATC device (Fig. 2), and clipping it to your belay loop (Fig. 3). If the belay device slips, the catastrophe knot on your belay loop will act as a backup, and your own weight will help to counterbalance the victim's weight. Both of you will still be attached to the anchor.

Now, we need to transition to rappel, which will require reclaiming our belay device. Assuming that the victim's rope is loaded, as noted above, the belay device is under load as well, so it cannot be removed easily. We'll need to first create a "technical shelf" to unload it. Note that if the victim were on a ledge, this step would be optional, since in that case, the belay device wouldn't be under load, and we could remove it easily.

To create a technical shelf, take out your (untied) cordelette, and attach it with a Klemheist to victim's rope (Fig. 4). Klemheist is recommended here, since it's faster to tie. Note the Klemheist's orientation, protecting against the downward pull. Next, tie a Munter-Mule-Overhand (MMO) using the loose end of the cordelette on a locking carabiner (Fig. 5), and clip that carabiner to the anchor (Fig. 6). We are going to temporarily transfer the victim's load onto this cordelette (thus creating a "technical shelf"). The use of the MMO here is essential, as this is what will allow us later to dismantle this setup under tension.

With the technical shelf in place, create slack in the belay device (Fig. 7), e.g., by wiggling the carabiner.

This concludes the optional step.

Now that the belay device is slack (Fig. 7), we can remove it from the anchor, but we must ensure that in the process of doing so, we remain attached to the anchor with the rope. In case the victim were to fall while we're removing the belay device, we wouldn't want the victim's rope to be attached to the anchor only with the cordelette (as it would be the case in our current setup), or - if they were on a real ledge, and we had forgone setting up a technical ledge with the cordelette - with nothing whatsoever (only a huge amount of slack on the rope that ends with a catastrophe knot on our belay loop).

Thus, before we do anything with the belay device, we'll first attach the rope to the anchor with the sacrificial carabiner we're going to rappel off of, the so-called "leave behind" carabiner (silver carabiner on Fig. 8). This carabiner goes in the middle between the belay device attachment, and the MMO tie-off attachment on the anchor. This carabiner will be our only attachment to the anchor later on, so it must be either a locker, or a pair of non-lockers in the opposite and opposed configuration.

After the leave-behind carabiner is in place (Fig. 8), the rope goes from the victim, through the Klemheist that attaches it to the anchor with MMO, through the leave-behind carabiner (silver on the picture), into the belay device that we're above to remove, and finally, to the catastrophe knot on your belay loop.

Before we go ahead and dismantle the belay device, it's a good practice to take a few extra steps in order to minimize the time the belay device is being manipulated. This is a good time to setup your rappel extension. Use a double runner, basket hitch it through the hard points on your harness, and finish with an overhand to create an attachment point (Fig. 9).

Now, remove your ATC from the anchor (Fig. 10), clip it to the rappel extension on your harness (Fig. 11), and complete the setup with an autoblock (Fig. 12). The recommended practice is to girth-hitch one of the ends of the autoblock through the hard points. Doing so creates a tighter attachment and minimizes the risk of the autoblock jamming into your rappel device (Fig. 12).

With the complete rappel setup in place (note that the catastrophe knot is already there, right behind your autoblock, since you tied it at the very beginning), we are ready to transfer the load of the fallen climber onto it.

This step must be done carefully. Once we transition load to the rappel system, the weight of the victim will start pulling us to the anchor. We need to be ready to counteract this force, since in case we do get pulled to the anchor, the ATC will jam on the anchor, and the autoblock will jam in the ATC, which could potentially cause the system to be released, and the victim to fall uncontrollably.

The first precautionary measure we need to take is to be as close to the anchor as possible, so we can manipulate things around the anchor without leaning forward (which would cause us to lose balance). Pull up the rappel device as close to the anchor as possible (Fig. 13).

Next, brace yourself against the force that will pull you upwards, and carefully release the MMO on the cordelette (Fig. 14). You will now take the full weight of the victim. From this point onwards, you need to move carefully to avoid getting pulled up and sucked into the anchor.

With the rappel loaded and cordelette slack (Fig. 15), you can remove it from the anchor. Don't tear it down, though, since you'll need it for a different purpose. Leave the Klemheist on the victim's rope, tie the MMO back (Fig. 16), and clip it to your belay loop (Fig. 17).

The cordelette attachment that we've just created will provide additional safety for us during rappel. If the rope below us is damaged and breaks, we'll still remain tied to the anchor (albeit the Klemheist is the only thing that will be keeping us alive).

Do note that now the Klemheist we left on the rope is in less-than-ideal orientation. While its purpose as a part of technical shelf was to protect against downward pull, now we'll want it to protect against the upward pull. Opinions vary greatly on how effective the Klemheist is in the opposite orientation. It's your choice to retie it, or to leave it as shown here to save time. In this document, we'll opt to leave it as is.

With the rappel setup in place and the cordelette attachment on the victim's rope, we can begin rappel. Remove your clove hitch (Fig. 18), being careful not to lose balance. The only thing that should remain on the anchor at this point is the leave-behind carabiner (Fig. 19). Remove the catastrophe knot (Fig. 20) and start rappelling (Fig. 21). Note that in addition to autoblock, you will also need to tend the Klemheist on the cordelette attachment (Fig. 22).

Once you arrive at the fallen climber, the Klemheist will catch them, so you can stop tending it (Fig. 23). This will put you in a position slightly behind the victim, which can make it easier to administer first aid.

Being behind the victim is also preferable if the victim is unconscious. If an unconscious victim suddenly wakes up and sees you in front of them, they will think they're falling, and their first instinct will be to try and strangle you from behind. Being behind the victim allows you to avoid this risk.

If you do choose to stop here to administer first-aid, make sure to tie the catastrophe knot first below the autoblock (Fig. 24) before you switch focus to anything else.

Once done with the first-aid, untie the catastrophe knot, and continue rappel. Since now the cordelette is attached to the victim and you will be pulling the victim down, both you and the victim will start moving together. Continue down together until you arrive just slightly above the first good anchor that you can use to transition into tandem rappel. Tie the catastrophe knot back (Fig. 24) to go hands-free.

You and the victim are now right above a good anchor you will use for transition, and you are both still securely attached to the top anchor above you with a loop of rope that starts at the victim's revowen figure-8, goes up and through the top anchor, then back down through your rappel device and through your autoblock, and ends with a catastrophe knot clipped to your belay loop.

This concludes the counterbalance rappel.

Phase 2: Tandem rappel.

We are beginning in a situation as described above, with both you and the victim being safely attached to an anchor above you using the rappel system backed by a catastrophe knot (Fig. 24).

You are right above an anchor that you'll use for transition.

Start by untying the rewoven figure-8 from your hard points (Fig. 25-26). You no longer need the rewoven figure-8 for safety, since as noted above, you are safely attached with a backed up rappel system. The rope should be slack (the load is on rappel), but the rope could be jammed by runners and carabiners on your belay loop, so you may have to work hard to remove it.

With the rope liberated, remove the leftover figure-8 knot, and thread the now free end of the rope through the rappel rings on the anchor. If there are no rappel rings, you may have to sacrifice another carabiner (Fig. 27). Once the rope is threaded through, attach it to the victim either with the rewoven figure-8, or if you have enough lockers to work with, alternatively, you can use a figure-8 on a bight clipped with a locker to their belay loop (Fig. 28-29).

Now, on the other side of the rappel rings, tie a MMO about 2 feet or so from the victim's attachment, and clip it to your belay loop with a locker (Fig. 30-31).

This effectively creates a lanyard of about 2 feet in length that securely attaches the two of you to the anchor (Fig. 31). Make sure all the knots are very well tied, since this lanyard is about to become the only thing that keeps you alive. The length of the lanyard (2 feet) is important, since too short or too long can make the following steps very difficult.

With the lanyard in place, you are ready to transfer the load to it.

First, remove the cordelette (Fig. 32). Both you and the victim are now securely attached with the lanyard, so it's not serving any useful purpose anymore. Next, untie the catastrophe knot (Fig. 33), and start rappelling. Keep rappelling for a few feet until the load is entirely on the lanyard you created with the rope, and your rappel system goes slack (Fig. 34).

You have reached a transition point, where the new anchor you are attached to with the lanyard is now the main anchor that keeps you safe. The top anchor you're rappelling on is no longer needed, and the rappel system is slack. You're ready to dismantle the rappel system.

Remove the rappel device (Fig. 35) and autoblock (Fig. 36) to detach the rappel system from yourself.

Next, detach it from the victim as well. Remove their original rewoven figure-8 (Fig. 37-38). Note that your victim will have two figure-8 attachments. You will be removing the one that's been keeping them on rappel (and that should have become slack). Make sure not to tamper with the lanyard attachment.

With the rope liberated from the victim, remember to untie all knots from it, and start pulling (Fig. 39) until you recover the end (Fig. 40). Make sure to collect the rope neatly so it doesn't catch below you.

At this point, you should have a length of rope in your hands, free of any knots or attachments, going from the loose end (Fig. 40), all the way to the MMO that's tied to your belay loop. You will use this rope to setup a new (tandem) rappel.

First, thread it through the rappel rings, as usual, together with your lanyard, and tie a knot (Fig. 41). Continue pulling you until the middle point (Fig. 42). Install the rappel device on the rope, still on extension (Fig. 43), and reattach the autoblock to complete your part of the rappel setup (Fig. 44).

Now, this is an easily overlooked step - don't forget to attach the victim to the same rappel system, too! Tie a basket hitch around their hard points, create a redundant attachment point with an overhand, and clip a locker to it (Fig. 45). Clip this locker to the rappel device right next to your own locker (Fig. 46).

As usual, complete the rappel setup with the catastrophe knot on the doubled rope (Fig. 47) clipped to your belay loop (Fig. 48) for backup, and make sure to remove any leftover slack in the rappel setup.

At this point, both you and the victim should be securely attached to the new anchor in front of you with a backed up rappel system, without any undue slack.

You no longer need the lanyard.

To remove the lanyard, untie the MMO and slowly release it (Fig. 49-50), remembering to pull away from you to tension the Munter. Releasing the lanyard will transfer the load to the rappel system (Fig. 51).

With the lanyard slack, you can now untie MMO, detach the lanyard from the victim (Fig. 52-53), and pull the loose end through the anchor to liberate the rope (Fig. 54). The rope you are now holding in your hand should have no knots or attachments on it. Tie a knot (Fig. 55), and you are ready to throw it down, along with the other knotted end that you prepared earlier.

This completes the tandem rappel setup (Fig. 56).

Rappel as usual until you reach safety, or until you reach the next anchor below you if you are multiple pitches above the ground.

If you reach another anchor below you, and are still above the ground, you will need to repeat the entire procedure described here.

As above, your procedure will be starting with you and the victim right above a new anchor you will be transitioning to. You will be securely connected to a rappel system backed up with a catastrophe knot, the only difference being that this time, it will be a tandem rappel setup (rather than counterbalance).

As above, you will first use one rope end to create a lanyard to temporarily attach yourself and the victim to the anchor, as described above. Once you're both secure on this lanyard, you'll rappel onto it, and dismantle the rappel system, pull the rope down, and setup another tandem rappel as described above. Repeat as many times as needed to reach the ground.

Fig 1. Arresting the fall.

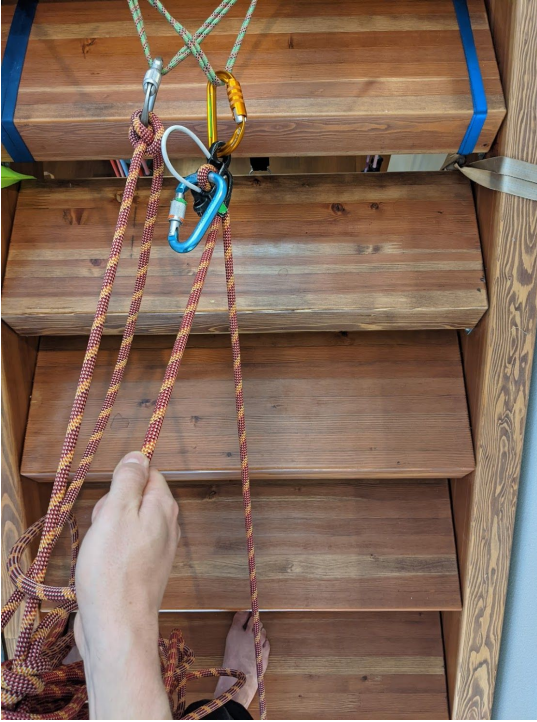


Fig 2. Tying the catastrophe knot.



Fig 3. Clipping the catastrophe knot.



Fig 4. Tying the Klemheist.



Fig 5. Tying MMO on the cordelette



Fig 6. Clipping MMO to the anchor.



Fig 7. Transferring load to the cordelette.



Fig 8. Clipping the "leave behind" carabiner.



Fig 9. Tying rappel extension basket hitch.



Fig 10. Removing ATC from the anchor.



Fig 11. Clipping ATC to the extension.



Fig 12. Installing autoblock for rappel.



Fig 13. Tensioning the rappel setup.



Fig 14. Releasing MMO on the cordelette.



Fig 15. All load is on the rappel setup.



Fig 16. Retying MMO on the cordelette.



Fig 17. Clipping cordelette to belay loop.



Fig 18. Removing the clove hitch.



Fig 19. About to rappel from this carabiner.



Fig 20. Removing the catastrophe knot.



Fig 21. Rappelling.



Fig 22. Tending the cordelette as well.



Fig 23. Arriving at the fallen climber.



Fig 24. Tying the catastrophe knot.



Fig 25. Untying your rewoven figure-8.



Fig 26. Untying your rewoven figure-8.



Fig 27. Threading rope through rappel rings.



Fig 28. Clipping it to the fallen climber.



Fig 29. Clipping it to the fallen climber.



Fig 30. Tying MMO on the other end.



Fig 31. Clipping the MMO to belay loop.



Fig 32. Removing the cordelette.



Fig 33. Removing the catastrophe knot.



Fig 34. Rappelling onto the lanyard.



Fig 35. Removing the rappel device.



Fig 36. Removing the autoblock.



Fig 37. Removing victim's slack figure-8.



Fig 38. Removing victim's slack figure-8.



Fig 39. Pulling the rappel rope down.



Fig 40. Pulling the rappel rope down.



Fig 41. Threading through rappel rings.



Fig 42. Finding the middle point.



Fig 43. Reattaching extended rappel.



Fig 44. Reattaching autoblock.



Fig 45. Victim's basket hitch extension.



Fig 46. Clipping victim to the rappel device.



Fig 47. Tying catastrophe knot for rappel.



Fig 48. Clipping catastrophe knot to self.

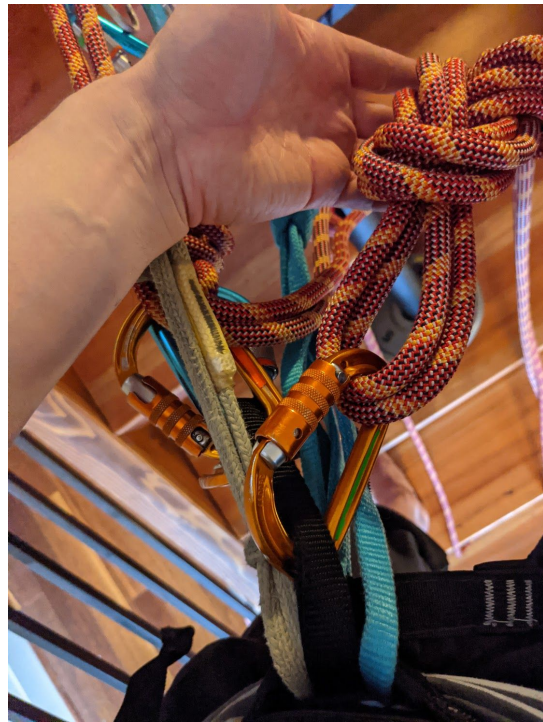


Fig 49. Releasing the lanyard MMO.



Fig 50. Transferring load to the rappel.



Fig 51. Loaded rappel and slack lanyard.



Fig 52. Detaching lanyard from victim.



Fig 53. Detaching lanyard from victim.



Fig 54. Removing lanyard from anchor.

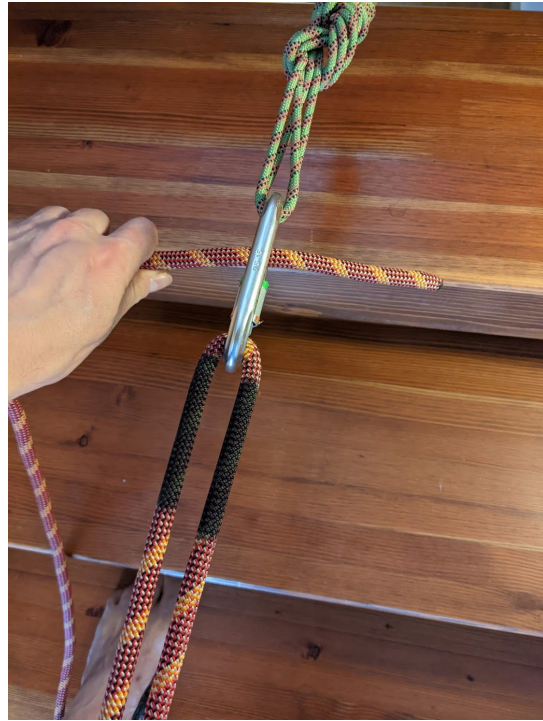


Fig 55. Tying knot before throwing rope.



Fig 56. Complete tandem rappel setup.

