Ropes Course Rescues





This manual was developed by Acedelmar Consulting and is used, with permission, by Northern Lakes Partners.

Revised 04/23

This document was prepared by Acedelmar Consulting at the request of Northern Lakes Partners. Acedelmar Consulting, its staff, volunteers and subsidiaries, are not responsible for the use/misuse of the information contained herein. These are offered as guidelines only and are subject to approval, acceptance, revision, and implementation by Northern Lakes Partners. Northern Lakes Partners, Crescent Lake Bible Camp, Northern Lakes Impact Center, its staff and subsidiaries agree to indemnify, defend, and hold harmless Acedelmar Consulting for incidents including, but not limited to, injury, damage, or death resulting from the use / misuse of the material contained herein. Use of this document will constitute a legally-binding agreement to this clause.

TABLE OF CONTENTS

Introduction	4
Emergency Procedures (General Policy)	
Prevention	5
Rescues (Low Ropes Course)	7
Rescues (Climbing Tower)	
Rescues (High Ropes)	12

INTRODUCTION

The following are the approved procedures for conducting rescues on the Ropes Courses at Northern Lakes Partners (d.b.a. Crescent Lake Bible Camp, d.b.a. Northern Lakes Impact Center). This document should be reviewed annually and updated, as needed.

EMERGENCY PROCEDURES (GENERAL POLICY)

Injuries on Ropes Courses are fairly infrequent if Staff do their jobs with care. Our programs are based on the concept of "perceived risk"; in other words, we ensure that, within all reasonable limits, there is little likelihood that participants could be injured. This is done through annual inspections, inspections both before and after events, training of staff, providing different levels of certification, practicing rescues, etc.

In the event that an emergency takes place at a Ropes Course, the following action steps will take place:

- 1. Radio for assistance. (If this cannot by done by the Facilitator, have a participant either bring you the radio or have them use the radio while you tell them what to say!)
- 2. The primary focus for the Facilitators will be to get the victim to the ground as quickly and safely as possible. In the event of a suspected spinal injury, care should be taken to not move the victim any more than necessary; however, since any care that we can provide is going to require a stable surface, we will need to get them down. Also, participants left hanging for too long in a harness can lose circulation to their legs which can create other serious health complications.
- 3. If needed, as the rescue belay is set up, the focus should be on reassuring the victim if they are conscious. Helping to calm them will enable us to accomplish the rescue more easily.
- 4. If this is an aerial rescue, Staff on the ground will not only assist with the rescue but will also keep an eye on the Primary Facilitator conducting the rescue. In case of emergency, it is possible to move too quickly, jeopardizing your own personal safety. To that end, Facilitators on the ground may require the Primary to show their connection points prior to moving.
- 5. Once more Staff have arrived, or if there is a group leader among the participants, have them immediately move all campers from the area. (Campers can be used as part of a rescue belay system ONLY if there are not sufficient staff to accomplish the belay safely.)
- 6. In the event of unconscious and/or spinal injury victims, they are to be moved only as far as is necessary to provide an adequate standard of care. If moving the victim, take into account the access for EMS. (Generally, if lowered from the High Ropes Course, they should be moved UP the hill to the path by the Climbing Tower; if they are lowered from the Zip Line, they should be left there as the EMS can access the area via Badger Hill.)

- 7. If the victim is suspected of having a spinal injury, perform stabilization as they are guided onto a backboard. Since EMS will probably NOT want to use our board, the victim need not be strapped down unless they are: (1) conscious and in danger of harming themselves further; or (2) need to be moved in order to provide more advanced care (e.g. CPR). Remember to remove the helmet ONLY if it interferes with providing care.
- 8. No matter what the nature of the accident is, the Health Officer (if available) will be notified immediately and will be on-site to help coordinate the medical treatment.
- 9. All Staff not assigned to a specific role will be responsible for assisting with the rescue, as needed.

PREVENTION

Okay, here I get to share with you one of the greatest secrets of Ropes Courses: MOST – not all – injuries on Ropes Courses are the result of actions by Facilitators! In other words, if we do our jobs correctly, we should (almost) never be in a situation where a participant sustains injury and a rescue is required.

Ways to prevent injury:

Initiatives -

It may seem silly to have to mention Initiatives, but I have been injured as a participant in "Wind In The Willows" and I know a team that dropped someone on "Feather Fall". Staff need to be aware of the activity they are leading; if you don't know it, don't lead it! If you need help or want to learn, ask! Ask yourself, "Is this the best place to lead it?" (If it's a lifting activity and you're over concrete, probably not!)



Low Ropes -

In nearly 30 years of working in the Ropes Course industry, this is the area where I've heard of the most injuries and deaths! Some of it comes from environmental conditions – drop someone on a stick or stump and you can puncture them! Some of it comes from lack of knowledge of the rules – I saw an online video of a participant who solo-jumped the "Electric Fence". He landed neck-first and started to complain of "numbness"!

Know your limits and know the limits of your team. Start small and work your way up. ALWAYS inspect the elements, as tree branches fall, limbs get snagged in trees, people mess with gear, etc.

Climbing Tower -

Most of the injuries I've seen at the Tower involve scrapes from people who dropped their feet when rappelling or back pain from someone opening a Gri-Gri fully, dropping the climber ten feet, and then letting go of the brake lever! (I've experienced that!)

The easiest way to avoid injuries here is to double-check everything! I've had participants in harnesses so loose that they were falling off their hips; I've had a participant who was nervous untie my double-bowline while "deciding his route"; I've had people ask if they could do something... unwise (usually Staff). If you're not sure, double-check! In fact, a simple rule of thumb is to NEVER assume that anyone can do their job effectively! If you do that, it encourages you to check your own gear, the gear of the participant, and the safety of the group!

Also, don't let participants put any body parts through the cracks and gaps in the Tower. If you do, we could be doing a much more serious rescue!



High Ropes -

As I began to write these manuals, I was speaking with the Vice President of PRCA, a ropes course standards company. He told me that week a Camp, during Staff Training, had done a mock rescue and ended up cutting the line that the "victim" was attached to. They killed the person. Unlike the Tower, there really is not a second chance on the High Ropes Course.

Know your skills well! Don't deviate from the policies and procedures for the High Ropes Course! Double-check everything! (Nobody can do their job effectively here, either!) If moving through the course, check your own gear! Before you begin, make sure the tethers aren't overly long so participants don't hang under an element. If you need to do a rescue, talk through your steps out loud so that others can check your work! In fact, most of the safety of a High Ropes Course comes from communication. Teach participants what they need to do and ask questions. Don't skimp on ground school. Talk to them as you belay. Belayer, ask the Primary to double-check connections after a transfer. Primary, talk to the participants. Primary (and participant), talk to the High Ropes Zipline person. If we communicate, not only are the participants safe, but we are, too!

As a final thought: No matter who you are or what your experience is, never ASSUME you have it correct! It's probably not any comfort to a parent whose child just died if you say, "Well, I THOUGHT I knew what I was doing!" (The rule is: When in doubt, don't!)

RESCUES (LOW ROPES COURSE)

While it is EXTREMELY unlikely that you will need to do a rescue on the Low Ropes Course, there are two elements where a participant may require Staff intervention:

Nitro Crossing -

The rule is: **NO participant may put** ANY body part in or through the rope loop! However, if a Staff person makes that mistake and allows it to happen, you may have to do a rescue. When they hang from it, the loop can close down around the body part, trapping it and damaging it in the process. To "rescue" from here, have the team work together to lift the participant and relieve the pressure on the loop. At that point, they should be able to remove the body part.

Spider Web -

We use "shock cord" to build elements like this, as it is stretchy and won't break someone in half if the group accidentally drops them. However, if someone going through an upper hole is dropped, they CAN tangle in the shock cord. (This is HIGHLY unlikely!) To remove them from the web, simply stretch the lines to get space and slip them over the participant. (If your team dropped them from that height, they may have a spinal injury!)

Notice that these two rescues are due to Facilitator error. The first is a clear violation of our policies; the second is likely due to overestimating the abilities of the team.



RESCUES (CLIMBING TOWER)

The Climbing Tower DOES present some more opportunities for rescue, depending upon which sides are in use and the group of participants. Unlike the High Ropes Course, however, most "rescues" can be done quickly and easily from the ground.

Basic Rescues

Basic rescues refers to times when a participant refuses to move forward or come down. To perform this type of rescue:

Sides 1 and 3, and 4

Since these sides are mostly vertical, the "rescues" are fairly straightforward:

- 1. Know the climber's name BEFORE they climb! (Using their name is the first step in helping to deal with someone who may be overwhelmed by fear.)
- 2. Begin by reassuring the climber. If you can reestablish communication with them, they may be willing to come down on their own. (If necessary, silence everyone else so that you can communicate more effectively.)
- 3. Encourage the climber to sit back and then you can lower them to the ground.
- 4. If they won't respond, encourage the climber to begin to climb down or simply lower them down. (This is the SECOND option, as a climber is more likely to scrape themselves against the Tower as they descend. Our preferences is that they are lowered.)
- 5. If they still won't respond, slack the rope about a foot. This forces the climber to hang more weight on their fingertips. After a few minutes, they should lose their grip. When they do, lower them to the ground in a controlled manner.
- 6. Comfort the participant verbally and check for any injuries they may have sustained from coming down the Tower without their feet in front of them.

Side 2

This side contains a ledge which participants can stand on and refuse to move. (This is one of the most common "rescues".) Because of this, rescues can be a little more complicated:

- 1. Know the climber's name BEFORE they climb! (Using their name is the first step in helping to deal with someone who may be overwhelmed by fear.)
- 2. Begin by reassuring the climber. If you can reestablish communication with them, they may be willing to come down on their own. (If necessary, silence everyone else so that you can communicate more effectively.)
- 3. Encourage the climber to sit back and then you can lower them to the ground.

- 4. If they won't respond, encourage the climber to begin to climb down.
- 5. If they won't respond and a second Facilitator can safely so do, have them put on a helmet, climb up a couple of steps, grab the ankle of the participant, and pull the climber off the ledge.
- 6. If this is too dangerous shorter Facilitators have a longer climb which can mean a longer fall if dislodged then belay a second Facilitator up Side 3 (the closest line to the ledge) using normal belay techniques. (This DOES require a third Facilitator!) When they are high enough, have them move to Side 2, grab the belt of the participant, and pull them off the ledge. (Be aware that the participant may fight you to remain on the ledge!) If possible, have them retain their grip and have both belayers lower them together. Do NOT let a participant rescue another participant unless they are immediate family and understand what they are to do! We are liable for any injuries they may sustain!

Side 4

Side 4, while similar to Sides 1 and 3, does present an odd, infrequent issue. If a climber nears the top and then slips, they may swing with enough force to actually flip over the belay rope running from the spin static to the Facilitator. While it's hard on the climbing rope, the easiest solution is to simply lower them SLOWLY to the ground. (If you do this slowly, it reduces the friction created.) When they are safely down, inspect your rope for damage caused by friction.

Facilitator Note:

Use your sense of humor. The general rule of thumb is that if you can get a participant to laugh, you can get them to move!

To open the Tower, a radio or cell phone must be present. Rescues are why communication is required. If you are alone – or all other Facilitators are occupied – have a participant get the radio and call for assistance. (Tell them how to use the radio **and** what to say to get help.)



Advanced Rescues

These refer to more complicated situations which, while they haven't happened yet, have the potential to create an unsafe situation.

Rappel Rescue

There are only two scenarios where this is likely to be used. The first would be for a participant on Side 2 who refuses to leave the ledge and no other means of rescue are immediately available. The second – and much more likely – scenario is if a participant puts their hands INSIDE the structure through a gap, slips, and then cannot self-rescue. In the second scenario, my preference would be to get as many people on their belay rope as possible (use a Prusik, if available), pull down to take their weight off, have them free themselves, and lower them to the ground.) If not:

- 1. Take the Climbing Tower Rescue Bag and attach it to your harness. (Note: While a Gri-Gri CAN be used, according to their own documentation it can be risky for heavier Facilitators.)
- 2. Take the cable grab to use for ascending the internal structure of the Tower. (Remember to keep yourself safe as you perform the rescue!)
- 3. Open the door of the Tower and make your way into the center. Using the cable grab, ascend the Tower. At the top, transfer onto the horizontal belay lines and make your way out to the side where you need to perform the rescue.
- 4. Attach the Rescue Bag to a cable and open the bag, but do NOT let it drop down the inside of the Tower.
- 5. Determine what side you need to be on. At this time, there should be an available belay anchor point for each side. Lower the carabiner and knot over the side of the Tower above that anchor point. Then, reach through the hole, grab the rope, and bring the carabiner back up inside.
- 6. Clip the carabiner through the primary belay bolt AND over the backup cable. Screw the carabiner closed, if necessary, and flip it over so that you don't "screw up"!



7. Take more slack from the Rescue Bag, attach the ATC (or Gri-Gri), and hook it onto your

harness. Double-check that you set everything up correctly BEFORE climbing over the top of the Tower!

- 8. When you are ready, shout "Rock". When you receive the call of "Clear", toss the Rescue Bag over the top of the Tower. Be sure to aim for a place away from the participant, Facilitators, etc.
- 9. Recheck your belay device and then climb over the top of the Tower, pulling slack out as you go. Lower yourself down onto the side. (There may be a slight jolt, depending on if you got the slack out or not.)
- 10. Rappel your way down to the participant and assist as needed.
- 11. After the rescue is complete, climb back up the inside, remove the carabiner and attach it to your harness. Shout "Rock" and, after receiving the call of "Clear", drop the rope to the ground.
- 12. Be sure to repack your Rescue Bag BEFORE you resume normal operations!

Belay Transfer

If a belay system jams or a Facilitator becomes injured or incapacitated, you need to be ready to transfer a belay using a Prusik Cord. (While I've only used this once in my entire career, it IS a useful skill!) If you do this rescue, there are a few key thoughts:

Above all else, secure the brake for the participant and call for help immediately if the other Facilitator is ill or injured!

If you can lower the participant by controlling the brake rope attached to the injured Facilitator, do it; once the participant is down, you can give aid to them, as needed. If the belay is jammed or you can't belay from their harness for some reason, you will need to perform a transfer.

To transfer a belay:

- 1. Get an unused belay device and carabiner ready. (They are in the Tower Rescue Bag.)
- 2. Take your Prusik cord from the Tower Rescue Bag and tie it in a Prusik Knot.
- 3. Wrap the Prusik THREE TIMES around the climbing rope approximately three feet away from the device you are trying to replace.
- 4. Have a larger participant clip into the loop of the Prusik and sit down to remove the weight of the participant on the Tower. (You may need a larger team, depending on the weight of the participant and/or the weight of the spectators.) Those assisting do NOT have to clip in; it just prevents them from slipping and/or letting go.



Prusik attached to climbing rope.

- 5. Attach the new belay device on the slack created, close the carabiner, and secure the brake rope. (If this is being used to transfer the belay for a damaged belay device, put the new belay device under/below the damaged one.)
- 6. At this point, disconnect the old belay device (if possible).
- 7. Have the individual / team release their hold on the Prusik and unwrap the Prusik rope.
- 8. Lower the participant to the ground, disconnect them, and provide aid, as needed.

Facilitator Note:

I had to use this when my pinky got pulled into an ATC and not only broke but also jammed the device. (Long, long story!) Anyhow, this is why I prefer to have Prusik's tied ahead of time, so you don't have to try to do it one-handed! (By the way, that story can't happen here. We use ONLY 11mm ropes and that old belay style has been replaced with something MUCH safer!)

RESCUES (HIGH ROPES)

The High Ropes Course presents the most likely place to do rescues. If we're careful, follow proper procedures, and communicate effectively, many of these will be simply "lowers". But, there ARE scenarios that are more complicated, so we'll address those, as well.

Lowers

A "lower" is when a participant needs to come down, but either cannot or will not climb to either the Vertical Playpen or the Zip Tree where they can be belayed down. To do a "lower":

- 1. For conscious and fairly coherent participants, use your sense of humor. Call them by name. Have them focus their attention on you. If you can do this, ask if they would be willing to move either forward or backward to get to a place where it would be easy to belay them down.
- 2. If a "lower" is necessary, either because the person is too overwhelmed or because they were injured in some fashion, the Primary closest to the person or the one in the course is the lead Rescuer. All other Primaries, Secondaries, participants, and spectators are required to assist, as needed.

Facilitator's Note:

Generally speaking, even the Ropes Course Administrator and Ropes Course Trainers will defer to the Primary closest unless there is a compelling reason not to. (E.g. A situation that requires an advanced rescue technique not normally taught as part of training.)

- 3. The person who notices that a rescue is needed will signal to the other staff by saying, "[Name] Rescue!" This alerts other Facilitators to the issue at hand. (If someone on the ground is aware of it before the Primary, they use the same call to notify them.)
- 4. As soon as a rescue is called for, any Facilitator with someone on dynamic belay must communicate with them and immediately lower them to the ground. That way all Facilitators present, along with the participants, can assist, as needed, with the rescue.
- 5. If the Primary is at the Zip Tree with a participant there, have them wait, connected to both the Zip Pulley and the daisy chain to ensure they cannot zip without you. If a participant is making their way toward the Zip Tree, tell them to sit on the nearest platform and wait for you to come back before doing anything else. Ask a specific person on the ground to keep an eye on them.
- 6. Take the Rescue Bag and secure it to your harness. Move your lobster claws to a belay cable and begin to make your way to the participant. Do NOT jeopardize your own safety by moving too quickly. (You can ask someone on the ground to keep an eye on you, too.)
- 7. When you get to the element the person is on, talk to them if they're conscious. Explain what you're doing as you're setting up. This helps to reassure them AND it helps those on the ground understand what you're doing.





- 8. Clip the Rescue Bag carabiner to the belay line. Flip the carabiner over, disconnect the bag, and shout "Rock". When the response of "Clear" is received, drop the bag to the ground. The rope will spool out and shouldn't tangle as it does. Have someone on the ground verify and respond, "Rope good!" Screw the gate down firmly and then squeeze check it before you begin.
- 9. Remove the rope shears and spare carabiner from the end of the rope. There should already be a double-bowline with a triple-barrel bight, but double-check it any way!
- 10. Grab both ends of the rope and make your way out to the participant. (The way our course is built, we are allowed to have two rescuers and one participant on a belay line at the same time, if necessary.)
- 11. Clip the carabiner through the belay loop on the participant's harness and lock it down.

- 12. Have EVERYONE on the ground take hold of the rope down by them. They are to line up, single-file, on a reasonably flat surface. They are to make sure they have two feet firmly on the ground, two hands firmly on the rope, and two eyes and ears focused on the situation at hand. (This really is a "more the merrier" circumstance, although it CAN be done by only the Primary in the trees if the participant is conscious and able to assist slightly.)
- 13. When the team is ready, the Primary asks the team on the ground, "On belay?" The team, led by a Staff member who will check to make sure they're ready, responds, "Belay on!"
- 14. The Primary then will say, "Lift!" The belay team on the ground will take three steps backwards while holding the rope. This will take the stress off the tether the participant is connected to.
- 15. When there is slack on the tether, the Primary responds with, "Hold!" The belay team responds with, "Holding!"
- 16. The Primary will then grab the brake rope, as well. With one hand, if possible, they disconnect the carabiner attaching the participant to the tether. (Depending on the shape of the participant, you may not be able to hold the brake as well as detach the carabiner.)
- 17. When the carabiner is removed, the Primary says, "Ready to lower?" The team responds with, "Lowering" and begins to lower the participant by allowing the rope to slide slowly through their hands. The Facilitator at the front of the line will direct the speed at which it moves.
- 18. As the participant is being lowered, the Primary MAY have to remove their hand from the brake rope to push them or peel them! off the element they are on. You do NOT want them to tangle with ropes or cables, if at all possible!
- 19. When the participant reaches the ground, disconnect them and provide care, if necessary. (For someone who is overwhelmed they may need space to breathe. Monitor their condition, though, to be sure they don't have any other conditions that develop, like shock.)
- 20. When the rescue is complete, the Primary slides the ropes back to the nearest platform and disassembles the gear. After clipping the gear to their harness, they drop the rope to the ground.
- 21. If someone is waiting to Zip, send them off after following the appropriate protocols. If anyone else is in the trees, clear them out, as well. (They can Zip.)
- 22. When the course is clear, repack the Rescue Bag and send it back up before putting anyone else up in the trees!

Variation: Cut-Away

There is ONE variation to this standard rescue, and it comes in the form of a cut-away. In this scenario, if you CANNOT disconnect the participant's carabiner from their harness in Step 16, the Primary may use the rope shears and cut the tether to release the participant to the rope.

This is a crisis situation ONLY and should be used only after ALL other options have been exhausted! If done incorrectly, as I mentioned in the "Prevention" section, you WILL likely kill someone! If you cut a tether, it also cannot be used again, which may close the course if there aren't extra

tethers available to replace it.

Facilitator Note:

I have NEVER cut a tether in 30 years. My ground team — even if it was just one other person — has been sufficient to get me the slack needed to disconnect the participant and lower them to the ground.

Speed Lowering

"Speed Lowering" is a technique where you can clear multiple people out of the course in a short period of time. This is ideal when a thunderstorm is approaching and time is of the essence. In the event that you are running the High Ropes Course when a thunderstorm arrives:

- 1. All Facilitators with someone on belay are to talk to their climbers and arrange to lower them to the ground immediately! (I had a Facilitator ask if they could finish their climb and Zip down. The answer is "No!")
- 2. Keep the number of people on the course to a bare minimum. Participants waiting on the ground should be moved into the Ropes Course Shed or sent back to the Main Camp as quickly as possible. They can take their helmets and harnesses with them!
- 3. All remaining participants are to make their way to the Zip Tree as quickly as possible. Remember: Do NOT compromise safety for speed! However, don't let the participants attempt to do the obstacles in the proper fashion. Instead have them hang onto their tethers and simply walk quickly across.
- 4. While they're moving, the Primary sets up the Rescue Bag as discussed; and the Facilitator on the ground gets a team ready to hold the brake rope. (Again, this may be done solo, if necessary.)
- 5. When the first participant arrives, the Primary hooks them onto the Rescue Rope. When everything is ready, the Primary asks the team on the ground, "On belay?" The team, led by a Staff member, will check to make sure they're ready, take out the slack, and respond with, "Belay on!"
- 6. The Primary will remove the carabiner for the tether. When the carabiner is removed, the Primary says, "Ready to lower?" The team responds with, "Lowering" and begins to lower the participant by allowing the rope to slide slowly through their hands. The Facilitator at the front of the line will direct the speed at which it moves. The Primary will make sure that the participant doesn't tangle in the elements as they are lowered.
- 7. When that participant reaches the ground and as they are being disconnected, have the next participant come over.
- 8. While they are moving, the Primary ties a double-bowline in the middle of the rope that was pulled up as the participant was lowered. They then clip a carabiner through the new knot and are ready to lower from the other side. In this case, the Primary operates the brake rope to lower the participant.
- 9. Keep alternating back and forth until the course is cleared.



10. Secure the course as quickly and safely as you can and then evacuate the area.

Facilitator Note:

Speed Lowering is fast, effective, and safe...if you pay attention to what you're doing! Take the time you need to do this safely!

Zipline Rescue

The only other scenario that I could see where a rescue might be needed is if a Zip Pulley jams or even breaks! If that happens, we could have a participant stranded on the Zipline. The easiest rescue here would be to throw up a rope, have them connect it to any carabiner they can, and drag them to the Zip Ladder to dismount. If that's not possible, you may have to go get them. To do that:

- 1. Get the large Rescue Rope out of the shed. (This is stored in the gray, "Real Rock" bin.) You will also need an RCU Pulley, a Gri-Gri, a few carabiners, two daisy chains, the Rescue Bag, and a fellow Facilitator who will follow you to the Zip Platform. (Yep, all of this is needed if you can't drag them!)
- 2. Climb up to the Zip Platform. (Hopefully I don't need to explain that at this point!)
- 3. On the LEAP Anchor at the front of the platform, attach the Gri-Gri. Tie a double-bowline with a triple-barrel bight into the end of the large Rescue Rope, feed it through the Gri-Gri, and attach it to the back of your harness.
- 4. Install the RCU Pulley onto the Zipline. Attach both daisy chains to the pulley with a carabiner and then hook both of them onto your harness. Be sure you leave it short enough that you can reach up and grab the cable.
- 5. Clip your lobster claw carabiners over the cable to function as backups. Be sure to flip them over and screw them down, if necessary.
- 6. Have the other Facilitator lower you down the Zipline using the large rope and the Gri-Gri. Be sure to go at a reasonable speed so that you aren't bouncing the participant!

Facilitator Note:

We've tried doing this with ATC belay devices and it was...painful. It takes a lot to be able to lock the rope off because of positioning. This is one instance where the Gri-Gri is truly critical!

- 7. When you reach the participant, hook the Rescue Bag onto the Zip Cable, shout "Rock", and when you receive the "Clear" response, drop the bag to the ground. Make sure the top carabiner is then flipped over and locked accordingly.
- 8. Attach and lock the Rescue Carabiner to the harness of the participant while the other people, led by a Staff member, get into position on the brake rope. When everything is ready, the Primary asks the team on the ground, "On belay?" The team, led by a Staff member, will check to make sure they're ready, take out the slack, and respond with, "Belay on!"
- 9. The Primary then will say, "Lift!" The belay team on the ground will take three steps backwards while holding the rope. This will take the stress off the tether the participant is connected to.

- 10. When there is slack on the tether, the Primary responds with, "Hold!" The belay team responds with, "Holding!"
- 11. The Primary will then grab the brake rope, as well. With one hand, if possible, they disconnect the carabiner attaching the participant to the tether. (As with other rescues, this may not be possible due to body shape, attachment point, etc.)
- 12. When the carabiner is removed, the Primary says, "Ready to lower?" The team responds with, "Lowering" and begins to lower the participant by allowing the rope to slide slowly through their hands. The Facilitator at the front of the line will direct the speed at which it moves.
- 13. After the lower is complete, have the Facilitator in the trees finish lowering you down the Zipline. If the Zip Pulley is damaged and won't move even without weight, pull the Rescue Rope back up, clip the carabiner to you, and have the team lift you up. Disconnect your other gear and then have the team lower you to the ground, as well.

Facilitator Note:

Because we always check our gear before we use it, this scenario is VERY unlikely! If it ever does happen, however, the course is done. The Zip Pulley failing like that will damage the cable, meaning that the Zipline is out of commission until it can be replaced.

By the way, if you set up the Zip Pulley backwards – blue tether to back and red to front – you can damage the Zip Cable in a similar fashion as the participant will "pop wheelies" going down, provided they don't jam partway! Always be sure to double-check this setup before using it!

As with other rescues, a Facilitator may make the choice to cut the Zip tethers if they cannot get the participant lifted high enough to remove the carabiners.

And, on one final thought, if the jam occurs near the Zip ladder, go to the ladder, assemble your gear, attach a rope to your back, and have a team drag you UP to the participant, rather than being lowered down the Zipline.



REPACKING THE RESCUE BAG

When the rescue is complete, you need to immediately repack your Rescue Bag. To do this:

1. Make sure there is a double-bowline with triple-barrel bight tied into only one end of the rope. (Be sure to check distance and sizing of the loops to prevent someone from becoming entangled.

- 2. Clip a carabiner through the double-bowline.
- 3. Clip another carabiner through the rope shears and attach that to the carabiner in the double-bowline.
- 4. Until any other knots that are in the rope. (This is true if you did Speed Lowering.)
- 5. Attach the Rescue 8 belay device to the rope by feeding a bight through the central hole and then over the tail. Clip a carabiner through the hole in the tail. Be sure there's about six feet of rope between the double-bowline and the Rescue 8.
- 6. Start with the long tail of the rope. Start pushing it down into the bag. Do NOT coil it, loop it, fold it, etc; just push it into the bag. (If you try to be fancy, it will create knots!) When you get up to the Rescue 8, put the double-bowline/rope shears combo into the bag and push the leftover rope in, as well.
- 7. When you're done, take the carabiner attached to the Rescue 8 and clip it through the loop on the Rescue Bag. Fold the top of the bag over and clip it closed. You're all set!
- 8. If doing this for the Tower Rescue Bag, the process is similar. Reattach your gear via carabiner, untie any additional knots, and then put the rope in the bag as described.



FINAL THOUGHTS

These are some random thoughts that apply to nearly all rescues:

- 1. Stay calm! If you panic, you WILL make mistakes, and that will help no one!
- 2. Remember your sense of humor! If someone is nervous, talk with them and try to help them to relax. I have one terrible knock-knock joke that I always use; or I will usually offer to hum circus music for them. If I can get them to smile, I can get them to move.
- 3. If you can get a climber to make eye contact or voice contact, they typically will recover enough to continue moving. If necessary, silence all of the other voices so that the participant can focus solely on you.
- 4. If a participant is frozen in one spot for a length of time, consider silencing everyone including yourself! We have found that sometimes what is "keeping" a climber in one place is that they are, on some level, enjoying all of the positive attention.
- 5. Communicate with other Facilitators when you suspect someone is having difficulties. This is true for medical conditions, nervousness, etc., and is especially critical for High Ropes Courses when you transfer control of a participant from one Facilitator to another.

- 6. ALWAYS have the appropriate Rescue Bag packed, prepped, and available when a course is open. Also, always have a Prusik Cord tied and available, if it isn't normally kept in the Rescue Bag.
- 7. ALWAYS have a means of communication radio and/or cell phone present and turned on. That way you can always summon help, if needed.
- 8. In general, it is easier to treat when the victim is on the ground. For almost every conceivable injury, the first priority is simply to lower the person down. If you suspect spinal injury and have been trained to tandem, you may stabilize the victim as they are lowered. If not, have the victim be stabilized by staff/spectators when they reach the ground. If spinal injury IS suspected, do NOT move the victim any further than is necessary to provide treatment.

Facilitator Note:

When I first learned Primary, we had to haul a Sked Stretcher into the trees, immobilize the victims, and then lower them if we suspected a spinal injury! When you consider the jostling that the victim would have taken, I'm not sure that this was helpful... Because of that, our priority, even in the case of spinal injury, is to lower the victim immediately!