

**Climbing Tower Training Manual**

**Updated May 2003**

### **Disclaimer**

The information in this manual is designed to be used in conjunction with a one-day training program at YMCA Camp St. Croix. The information contained herein does not represent the requisite information to operate the Climbing Tower, nor does it constitute a complete and accurate portrayal of all the necessary safety protocols.

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## Objectives

- ENCOURAGEMENT - to practice giving and receiving support
- GOAL SETTING - allow participants to set goals and make commitments to giving 100% effort to obtain those goals
- SELF-CONFIDENCE - to provide a positive, challenging growth experience for individuals and gain confidence in their ability to face a difficult task
- SKILL DEVELOPMENT - to learn basic techniques of mountain climbing and belaying

## Some Basic Ground Rules

1. The goal is NEVER to get to the top. The goal is to challenge yourself in whatever manner you choose. We can increase the level of challenge by adding blindfolds, making people go backward, tethering two climbers together, etc. No matter what the group may say, however, “Challenge by Choice” (participants decide how high they will go) is always in effect.
2. Everyone needs to encourage each other. If someone jokes about dropping someone, you should remove them from the activity immediately. Making fun of someone who did not climb as high as others is also unacceptable.
3. If a group cannot behave in a safe manner, do NOT do this activity! The camp will support you if you decide that the group is not acting in an appropriate fashion.
4. If it looks unsafe, it probably is. Always inspect the tower, the belay cables, ropes, harnesses, z-posts, ‘bineers, knots, etc. Never assume anyone can set the tower up properly, nor that the equipment is safe from use to use. When in doubt, throw it out...
5. Never leave the Tower area without pulling up the ropes, picking up the gear and locking the door. Access should be controlled at all times for the safety of the program participants.

## Harnessing

This section is to be used as an introduction to or a refresher for harnessing. It is NOT intended to replace being trained in the actual use of harnesses.

**Step One:** Lay out the harnesses. Check to make sure the waist belts are unbuckled and the leg straps are loosely buckled. Inspect all harnesses for damage, missing clips, etc. When in doubt, throw it out...

**Step Two:** Have the participants take off any loose jewelry. Contrary to popular opinion, they do not HAVE to remove their rings, although it is generally good practice. Big hoop earring, necklaces, bracelets, etc. should be removed to prevent them from snagging on the tower and breaking.

Have participants tuck in shirts (if they are wearing a jacket but don't intend to climb with it on, they should take it off during the harnessing process and put it back on over the top when finished. Hair should, if possible, be tied up, pants should be pulled up (no sagging and bagging) and shoelaces should be tied.

**Step Three:** Have the participants pick up the harnesses. They are to hold them by the waist belt with the belay loop to the front (centered on their navel) and logo on the harness facing out and upright. (We don't want to mess with the harness-makers ability to market their own product now, do we?) If there is no logo, have the participant find the directions on the inside of the waist belt, those will face upright and be against their body if the harness is on properly. If both of these tags are gone...guess.



**Step Four:** Have the participants wrap the waist belt around their body and bring it back to the front. Feed it through the buckle. The waist belt should seat itself over their hips and below their ribs. It should be snug enough to not slip off, but not so tight that the participant cannot breathe (although I prefer to err on the side of lack of air, if I must).



**Step Five:** Have participants straighten out their leg loops, making sure there are no twists in the fabric. With the help of a friend (lean on me, when you're not strong...), have them put their feet through the leg loops. If done properly, the tabs on the metal buckles will be facing toward the outside of their thighs. (Here is where people have the most difficulty.)

Snug the loops tight, but don't worry about them staying in place, yet. We have a few more things to adjust before everything is ready...



**Step Six:** On the back of their harness is a final strap. I have heard it called the "butt strap", "back clip", "monkey tail", etc. For today, we'll call it a monkey tail (it sounds nicer than "butt strap"). This strap goes up one leg, behind the waist belt, and then back down the other leg and then hooks into the clip. Have the participants slide their leg strap into position and then gently tighten by tugging on the monkey tail.



**Step Seven:** All right! We are in the home stretch. Now, we have to “lock off” the straps on the harness. There are two main ways of explaining this:

1. If you see red, you’re dead. On most harnesses, there is a red mark on the buckles indicating the areas in need of being locked off. However, telling a nervous person they may be “dead” and since not all harness have this mark, let us look at another option...
2. If you look at the buckles, they form the letter “O” which stands for “Open”. Open is a bad thing. We want them to be the letter “C” for closed, so we need to back them off. To do this, fold the belts back over the buckle and feed them out the other side. (In this case, a picture is worth a thousand words, so here it is...)



Do the same with the leg straps.

**Step Eight:** Last, but not least, you must take all the loose ends of the belts and tuck them in. Make sure that as you wrap them up and out of the way that they do not cross over a buckle. You always want to be able to visually inspect the harness to ensure it is on properly.

**Step Nine:** Put on the helmet. You may have to loosen the helmet to get it to fit down on the participant’s head. When it is “seated”, it should be two fingers off the eyebrows (sounds like the military, doesn’t it?). Adjust the chin strap so it is snug but breathable. Now, for all of you who grew up in the 80’s, have the participant “head bang” to make sure it won’t fall off as they climb.

**Safety Note:** If a participant cannot get their harness on correctly:

1. Re-explain the process, watching closely to prevent them from making a mistake.
2. Ask if they can get a friend to help them. Again, explain what you need the friend to do, if necessary.
3. ASK if you can help them. Remember: you don’t want to grab and then be accused of sexual harassment or child abuse. If they agree, tell them step-by-step before you touch near any sensitive areas, asking if they are okay with that. If they refuse and

still cannot get their harness correct, they simply do not climb.

### **Climbing Tower Setup**

1. Set-up should be accomplished prior to the arrival of the participants.
2. Needed to install ONE climb: two rapid links, one spin static, one climbing rope and one carabineer.
3. Attach the top rapid link to the link already attached to the spin static (Note: NEVER remove the rapid link directly attached to the spin static!) and place it over the wire. Adjust the rapid link so that the “gate” (the area it opens and closes at) is facing down; in other words, you have to screw the gate down. This will guarantee a better closure than if the gate is turned up. Small safety tip! The way to remember this is, “If you’re screwing up, you’re screwing up!”)



4. Feed rope through the spin static and lower it down the wall. As soon as the first end reaches the ground, make sure the area is clear, shout “rock”, and kick the other end of the rope off the tower.

### **Some Good Advice...**

***“Rock” is the universal command for something falling from the sky. If you hear “rock” above you, duck and cover, never look up! Untangle the rope, if necessary, and go back down the ladder.***

5. Recommendation: always close the top of the tower when done with set-up (it’s hard on the hinges if the wind blows it shut); close and clip the door shut (you don’t have to lock it) to prevent participants from sneaking up the tower without your knowledge!
6. Tie your belay knot (double bowline) and attach the carabineer. For safety reasons, I will not attempt to explain either the knot or the proper way to attach the belay device. If you are uncertain, call another staff person over! **Never Assume You Have it Correct!**



7. Setup the Z-post belay, if being used, or attach your belay device. (In the picture below, the rope is left loose on purpose to enable you to see how the rope threads through the post.)



### **Facilitating The Tower**

Explain clipping-in to climbing rope:

#### **On Climber's End -**

A carabiner should be attached through the climber's belt strap and leg strap and locked down. The carabiner from the rope should then clip through the nylon loop and the climber's carabiner. This functions as a back-up safety device in case of the loop failing.



#### **On Facilitator's End -**

Make sure the Z-post is ready and that participants are in position.

### **On The Belay Team's End –**

Give a general explanation of how the belay system works. The team must stand on the “outside” of the rope and need to observe the “Rule of Twos”:

- Two feet away from the Z-Post at all times.
- Two hands on the ropes at all times.
- Two feet on the ground at all times.
- Two eyes on the climber.
- Two ears listening for commands.

The person on the end of each line is considered a “Rope Tender”. The job of the rope tender is to take the slack handed to them by the belay and to coil it so that it is out of the way. Upon descent of the climber, the Rope Tender simply drops the rope to the ground and steps back.

Provided that everyone does their job, there is little risk of injury in this activity. All non-climbers are required to participate on the belay team until it is their turn to climb.



### **Basics of Climbing**

Explain basics of climbing and demonstrate on bottom blocks. Don't tell them how. Let them figure it out through trial and error. Give hints, as necessary, to prevent discouragement.

- Keep your body close to the wall. The farther back you hang, the more pressure you place on your fingertips.
- Blocks turn. Oh, well, deal with it!
- Use your legs! They are stronger than your arms.
- Turn your feet sideways to get a better “grip” on the blocks.
- Keep three points (two arms + 1 leg / two legs + 1 arm) on the wall at all times. It's harder doing the wall with only two points of contact!
- If you get stuck, don't give up. Stop and reevaluate your position.
- If you need a hint, ask for one!
- It's okay to not make the top. Just try your hardest.
- Some people like big goals (like the top). Others do well on little goals (like 1/4 of the way

up, ½ etc.). Decide what works well for you when you set your goals!

### **Climbing Commands**

Make sure you know the climbers name and they know yours. This establishes a working relationship. All commands should be given in a loud, steady voice.

CLIMBER

“(Name) On Belay?”

BELAYER

“(Name) Belay is on.”

\*The climber is all hooked up and ready to climb. Before the belayer gives the return command, he or she must make sure there is no slack in the rope. When the climber feels the rope tug on the harness, they know they are secure.

“(Name,) Climbing?”

“(Name) Climb on.”

Before beginning to climb, the climber needs to make sure the belay team is ready. The belay team responds and begins taking in the rope.

### **Special Commands**

“Up Rope” - If the climber notices too much slack in the belay rope they give this command. The belay team should take in the loose rope so if the climber falls, they will only fall the minimum distance.

“Slack” - If the climber feels the rope is being held too tightly they give this command. The belay team replies by letting out a little slack.

“Okay” - The belay team’s response to all of the above commands to let the climber know the team has heard them.

“Falling” - This command is given if the climber starts to fall, alerting the belay team to use the brake.

### **Rapelling**

1. Have the climber lower themselves while hanging on to the top of the wall until they are in a sitting position with legs out and feet flat against the wall.
2. Tell climber to grasp rope in front of them. When they are ready to rappel, they should

say, “Rapelling.” Belay team answers with “Okay”

3. Encourage climber to push out from wall as the belay team lets out some of the rope. Make sure the climber lands with their feet out in front of them.
4. When the climber reaches the bottom they should disconnect themselves from the rope and remove their equipment.

### **Safety Regulations**

- At the first sound of thunder, clear the activity area and seek shelter. If the thunder stops for a period of fifteen minutes, you may resume the activity. Use your judgment based on the appearance of the sky, however.
- Upon completion of the activity time, the ropes must be either pulled up or taken down. No ropes may remain accessible for a period of time longer than ½ hour between uses. (If the ropes are pulled up, remove the carabineer to protect them.)
- The door to the tower must be locked EVERY time staff leave the area unattended!
- Any questionable equipment must be retired immediately and brought to the attention of a Program Director before it may be used. Any carabineer dropped from a height of over six feet is immediately retired and may not be used again!
- No one may set up the tower unless they have been checked out by a Program Director or the Executive Director.
- The tower must be supervised by someone 21-years-old or older. An 18-year-old may supervise the activity provided that someone 21 or older is in the immediate vicinity and can assist, if necessary. No one staff person should belay the tower without other staff available!
- If doing seat-belay, staff in need of assistance to anchor themselves to the ground may use campers and other personnel. At no time may they wrap a webbing around an object.

## Bouldering

Bouldering is another fun activity which can be done. Instead of participants attempting to climb up, they challenge themselves to go around the Bouldering Wall without touching the ground. This is a fun, impromptu activity, and requires no set up, and may be used with any program. While requiring no safety gear (helmets are recommended, but are not required) and/or certifications, there are some rules, however, which must be followed:

1. The front door to the Bouldering Shed needs to be propped open to prevent being trapped inside the building.
2. Bouldering must be supervised at ALL times. No staff person will ever leave campers unattended and will not divert their attention away from the participants.
3. Any objects which may be potentially harmful should be moved from the Bouldering Wall area to prevent injuries.
4. Bouldering should be done on the “buddy system”. One person attempts to climb around the wall while their partner stands behind them, hands up, to help cushion a fall.
5. Participants may not allow their feet to cross over the red line on the Bouldering Wall.
6. Campers not following directions should be warned once, and then removed from the activity. This is especially critical for those who fail to obey the eight foot limit.

