

## **Basic Knots for Sports Climbing**

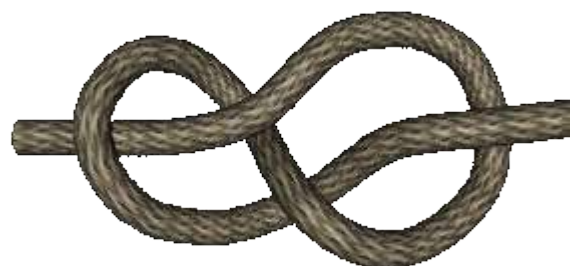
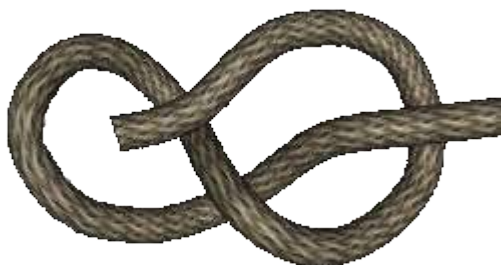
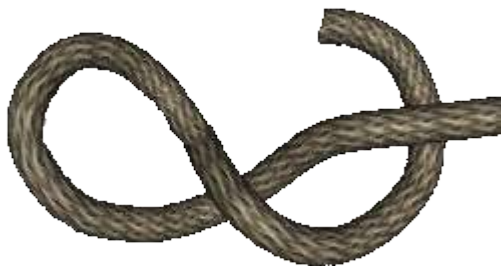
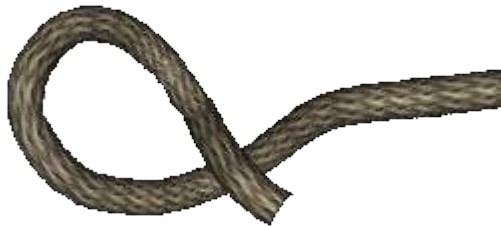
1. Simple overhand
2. Figure-of-8
3. Threaded Figure-of-8

### **Simple overhand**

This is what is commonly known as a dead knot. It is used to stop a knot from coming loose, e.g. the trailing end of the Figure-of-8 knot.

### **Figure-of-8**

Perhaps the most useful knot to a climber and is often used to secure the harness to the top rope. Follow the illustrations on bottom left to tie this knot. When you are done, it should look like the figure on the bottom right.

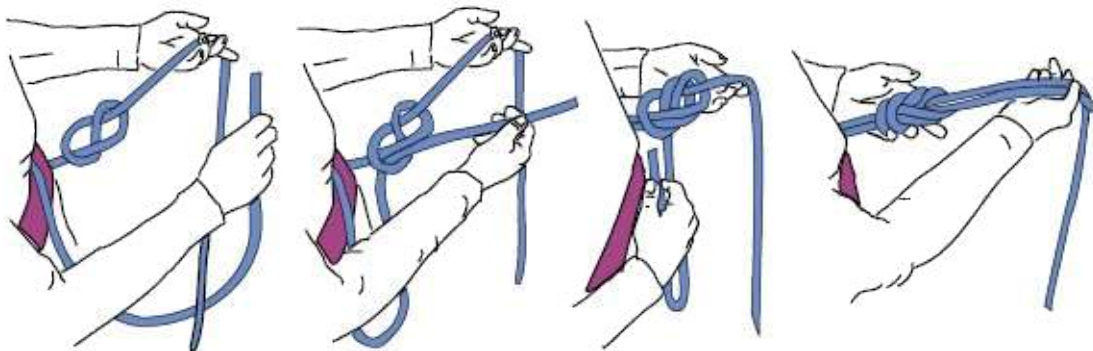


## **Basic Knots for Sports Climbing**

### **Threaded Figure-of-8**

The loose end of a Figure-of-8 knot will be looped through your harness and secured by threading it through the knot. You must take care to follow the path and dress the knot properly to prevent excessive strain on the rope.

The knot should be tied as close to the harness as possible so that it does not interfere with your climbing by rubbing against your chest. Secure the loose end with an overhand knot.



## **Art of Belaying**

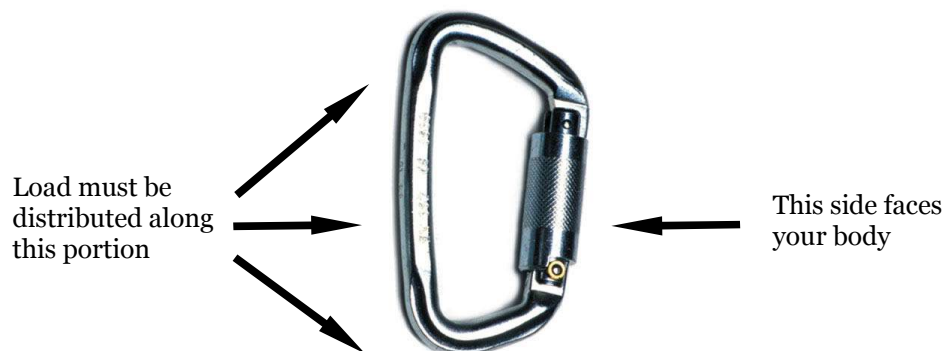
1. How to wearing a harness properly
2. Karabiner & ATC Belay Device
3. 5-step belaying technique

### **Wearing a harness**

Choose a harness that fits you securely without restricting your movement. It is important that it is not loose for you do not want to slip out of your harness when you experience a fall.

All buckles should be doubled back where possible. Climbers must check one another that they have worn their harnesses properly before starting the climb.

### **Karabiner & ATC Belay Device**



# **Art of Belaying**

## **The 5-Step Belaying Technique**

Firstly, there is the Rope Hand and the Brake Hand. If you are right-handed, your right hand will be your Brake Hand.

1. Pull top rope in with your rope hand and pull trailing end of rope with brake hand.
2. Brake by pulling trailing end of rope towards your thigh. Hold the position.
3. Move your rope hand just over your brake hand and hold the rope.
4. Move your brake hand above your rope hand, preferably close to the ATC Belay Device.
5. Move rope hand back to top rope and repeat from Step 1.

Before you can even start climbing and belaying, the following are crucial for safety!

- Belayer check that climber has secured the knot correctly and all harness buckles are doubled back.
- Climber check that belayer has the belaying device secured, squeeze karabiner to check that it has been secured.
- Climber asks, "Am I on belay?".
- Belayer replies, "On belay!".
- Climber informs, "Climbing...".
- Belayer replies, "Climb on!".

While climbing, climber can ask for the following.

- Slack                      *Loosen rope*
- Up rope                    *Tighten rope*
- That's me                 *Ideal rope tension*
- Falling                     *Brake*
- Coming down             *Release rope slowly as climber begins descent*

When descending, keep body in a L shape with legs extended and against the wall. Walk down slowly.

## Basic Techniques of Sports Climbing



The best way to learn is to observe and watch how others perform certain moves as they make their way up the rock wall. For starters, the following basic points should suffice to make your initial climb enjoyable.

- Keep your body close to the wall!  
This helps to achieve stability and you will not strain your arms too much by leaning back too often. You may need to lean back sometimes to plan for the next move though.
- Use your legs instead of your arms!  
Your leg muscles are much more stronger than your arm muscles and they can sustain your load for much longer.
- Always try to maintain 3 points of contact.  
Before reaching for the next hand hold or foot hold, you should try to be firm and stable.
- Use opposing limbs to maintain balance and prevent pivoting.  
If you find yourself having just to balance on 1 arm and 1 leg, make sure they are opposing. Left hand on hold, followed by right foot on hold, and vice versa.
- Flagging or shifting your centre of gravity.  
Shifting your free leg just below the leg on a hold will shift the centre of gravity, making you much more stable for that next move.
- Switching feet.  
Sometimes you need to switch feet for a foothold. For example, you can put your right foot on top of left and slowly ease out left foot.

## **Basic Techniques of Sports Climbing**

- Pushing instead of pulling to maintain balance.  
Sometimes, to lessen the strain on our muscles, we have to learn to use different muscle groups. Pushing with opposing limbs against holds instead of pulling with our arms can help certain muscle groups rest.
- Using the outside of your foot greater reach.  
This may sound ironic but it is true. When you are on a foothold and you are trying to tiptoe to reach for a handhold, you will have greater reach if you use the outside of your foot while tiptoeing.
- Backstep technique for even greater reach!  
This is a slightly more difficult technique. Sometime even tiptoeing cannot allow you to reach for that elusive handhold.

Imagine yourself tiptoeing on your right foot, and using your right hand to reach for a hold to your right...

What you can do is to use your left hand to grab a handhold and hang on. You will need to get your balance, face your body to the left, then try to “lean back”, extend your right hand, and finally grab that handhold!