Basic Rock Climbing Class

Southwest Outdoor Club — Tempe, Arizona

PHYSICAL CONDITIONING

Although not a requirement, as in any sport involving physical activity, being in good physical shape makes the sport more enjoyable. In my book there are at least four types of physical conditioning which relate to rock climbing:

1. Strength --being strong enough to "make the moves"
2. Aerobic -- having good cardio-vascular capability along with the ability to take up and utilize vast quantities of oxygen
3. Endurance -- the ability to keep going and doing for Iong periods of time (consider the 13 hours it took three of us to climb Cathedral Peak in Tuolumne Meadows this past August ...)
4. Flexibility -- the ability to reach up above your head with your left heel to "hook" a hold while hanging from your right hand (ha, ha)

During this course we will expose you to some exercises to improve your abilities in each of these categories.

Strength -- There is nothing like climbing to improve your ability to climb better. This goes for strength to climb too. Although you don't have to be "strong" to climb at the beginning level, you can climb better and enjoy it more if you work a bit on your strength. Some climbers do "weight training", I don't. However, if I did, I would work on the following:

- Hand Strength -- Strong hands are critical to good climbing, i.e. "get a grip" Some people squeeze a tennis ball. Or you can buy expensive equipment from any climbing shop to do the same thing. Some of the best climbers are strong enough to hang onto a finger pocket by one finger (and do a pull up from it besides).
- Arm Strength -- For low angle climbing, hands and arms are used primartly for balance. However, as the angle steepens, the arms are used more and more to keep you from pitching off backwards from vertical or overhanging walls. Pull ups, push ups, "flys", pull downs -- they all work to improve your arm strength.
- Stomach Muscles -- I've been very surprised after a hard day of climbing to experience very sore stomach muscles. Sit-ups are great, you don't even have to sit up all the way! In fact, it's better for your back NOT to sit up all the way -- just until your shoulder blades are off the deck.
- Back Muscles -- These are important too, but yours are probably already strong enough for climbing.
- Leg Muscles -- These too are probably strong enough for beginning climbing. However, if you have your sights set on El Cap or the NW face of Half Dome....
- Butt Muscles -- often these get tired from sitting around on a hard, sharp rock while your partner takes forever to climb the pitch. Toughen up those Glut's for the LONG sit.

Aerobic -- Don't want you to run out of air half way up a climb! Good aerobic conditioning will allow you to perform at or near your peak for extended periods of time. In multipitch Rock Climbing, one person climbs while the other belays; so each gets a break. However, when it's your turn, you need to be able to perform. Some ways climbers get into aerobic shape include:

- Running talus -- Talus is that loose rock you find around the base of BIG mountains. Running talus is good both for aerobic conditioning and for balance (you never know when the stone you've just stepped onto will shift its position). A close second is running railroad ties.
- Running anything is good.Running UP Squaw Peak or Camelback is even better. (I do neither.)
- Hiking up mountains is good -- that's what I do.

- Anything else that gets your heart rate up that you can continue for an extended period of time is good.

Another thing about aerobic conditioning -- the heart rate needs to be up there but not up TOO high. A good way to estimate what your heart rate should be to attain aerobic conditioning is to determine your "age adjusted" heart rate. To do this, Subtract your age in years from 220. This is your theoretical "maximum heart rate" (Mine is 220 - 57 = 163.) Next take 80% of that number -- this is your "target heart rate" for aerobic conditioning. (Mine is 80% X 163 = 130.) To gain the benefits of aerobic conditioning, you must be close to your target heart rate for a period of time in excess of 20 minutes. As your aerobic conditioning improves, you should be able to sustain that level of exercise for longer and longer periods of time. (Currently I can sustain my target heart rate for only about an hour, if that.)

One last thing about aerobic conditioning and a healthy heart. Recently I've read that occasionally, it is not bad to exceed your target heart rate for brief periods. It kind of makes sense, but I'd talk to an authority before doing anything rash.

Endurance -- Endurance is built up over time. Just keep going on longer and harder trips.

Endurance is a key factor to being safe in the back country. Too many times I see groups plan an activity which is just within the realm of possibility for them. This leaves no margin of safety if something doesn't go according to plan.

Take me for example. I have the nickname of Twilight (for a reason), ALWAYS bring a flashlight along on any trip which I lead. It is critical, life dependent, to be in good enough condition to "spend the night" if required. It may also be required to go the extra effort to help an injured climber -- first off the rock, then off the mountain, and then back to the car. If everyone in the party is "at their limit" with no extra endurance to spare, the probable outcome is bleak.

Flexibility -- Rock Climbing is also the art of the contortionist. Being able to bend in ways you never thought you could sometimes means the difference between being able to climb the pitch/route or not.

The best in the sport can do the splits three different ways and roll between the positions!!! (I can't even do the splits -- not even close!)

Can you touch your toes? Can you clasp hands behind your back, one hand over the shoulder and behind the head, the other up from below? Can you sit on your feet, and then lean back until your shoulders touch the floor? (I can't do any of the above, but I can come close.)

I have developed a routine designed to both increase flexibility and to warm us up before we climb.

Why, you might ask, is Wayne stressing all this? Well...

1. Climbing is more fun when you're fit.
2. Climbing is a risky sport. Not only could you get hit in the head by a rock, but you could strain a muscle which isn't warmed up and isn't limber.
3. Some of you may drop out for any of a number of reasons. I don't want any of those reasons to be that you were injured or that you weren't in good enough shape.

CARDIO-VASCULAR CONDITIONING

Cardio Vascular Exercise is vital to a healthy body, especially the heart and the circulatory system. The only way to maintain a healthy heart and circulatory system is to exercise. Exercise needs to be done for a minimum of 20 minutes to begin to have a positive effect and begin to build up all those good things associated with being in shape (i.e. not feeling terrible after a hard day's climbing)

Exercise a minimum of three times per week at a level which will moderately stress the Cardio-vascular system. The right amount of stress is easily determined from your heart rate during or immediately following such exercise (immediately following means within the first minute or two after stopping).

TARGET HEART RATE

First you need to know what your age adjusted maximum heart rate is. There are two ways to calculate your theoretical maximum heart rate - Simple calculation, and Complex calculation.

First the Simple calculation.

1 Subtract your age in years frorn 220. _____

This is your Theoretical Maximum Heart Rate. As you get older, your heart can't pump as fast (me too).

2 Take 80% of the answer from above. _____

This is your Target Heart Rate adjusted for Age. You should exercise at or just below this Heart Rate for Cardio-vascular conditioning.

Example: 30 year old person with resting pulse rate = 72 (normal).

Simple computation: 220 - 30 = 190
190 x 80% = 152

Example: 56 year old person with normal resting pulse rate = 60.

Simple computation: 220 - 56 = 164
164 x 80% = 131