

National Camping School: Trek Leader Section

Conditioning and Pre-Trek Training

The following instruction on conditioning and pre-trek training was adapted from *Fitness and Physical Training for Mountain Hiking*, by Thomas R. Welch, M.D. Dr. Welch practices medicine at Children's Hospital Medical Center in Cincinnati, Ohio. He is active in the Wilderness Education Association, the Wilderness Medical Society, and the New York State Outdoor Guides Association.

Participants should counsel trek members by telling them the following: "You are about to undertake a backpacking trek. If it's your first, you're in for a great adventure. If you are an experienced hiker, you already should know the importance of this information.

"You'll enjoy the outdoors best if you go into your trip in top physical shape. Fitness is especially important in three areas: **cardiovascular conditioning, leg strength, and foot care.** Each of these is as important as the other two. Here are some ideas on getting all three into top form."

Cardiovascular Conditioning

Participants should advise trek members that hiking puts enormous stress on the heart and lungs. Simply put, carrying a pack over rough trails requires extra effort by the heart and lungs to supply sufficient oxygen and energy to the muscles. Trek members can do three things *now* to be sure that their cardiovascular system will be "up" for trekking.

- 1. Smokers should QUIT SMOKING NOW!** Smoking interferes with the lungs' ability to deliver oxygen to the blood. This is a problem, particularly during strenuous exercise.
- 2. Trek members should take a serious look at their weight.** Those few extra pounds are just like more weight in a backpack. Also, the heart must work harder to pump blood through the extra fat. Trek members should find out what their ideal weight should be and work to get there. This doesn't have to be difficult and may be as simple as skipping dessert and switching to diet sodas for a while.
- 3. Most importantly, trek members should start aerobic training now.** This means undertaking some form of exercise that will raise the pulse to its "target range" and keep it there for at least *20 minutes*. The exercise should require steady effort: running, swimming, cycling, or tennis. The routine should be followed at least *three times a week*. The target pulse range for most people younger than 25 is between 140 and 170 beats per minute. So, a 16-year-old planning a trek during the summer should, for example, cycle hard enough to raise his pulse to 140 to 170 at least three times each week for at least 20 minutes.

Strengthening Muscles

Participants also should tell trek members that heart and lung conditioning is only part of the job of getting in shape for a trek. The next step is making sure that trek members' legs are strong enough to carry them and their packs.

The main muscle group to focus on for backpacking with ease is the *quadriceps*, or "quads." This is the muscle group in the front of the thighs—the ones that get sore after a lot of climbing.

There are other options for strengthening the quads. Using a stair climber at a local YMCA or health club can accomplish the same thing. Or climbing a lot of stairs, such as at a nearby stadium. Warn trek members about being careful with weights, though. If they don't know what they are doing, they can overwork their quads, risking injury to the hamstring muscles on the back of the thighs. For paddling the focus will need to be on strengthening biceps, torso, and trunk muscle groups. Pushups and weight training exercises help condition these muscles.

Foot Care

It won't do any good for trek members to have their heart, lungs, and legs in shape if they have sore feet. There is nothing more miserable than being 20 miles into the woods and having blisters that make every step painful. Tell participants that they should remember these three tips to help prevent this from happening.

- 1. Make sure that shoes fit well.** Hiking shoes that do not fit well are the prime cause of sore feet. Trek members do **not** want to get a new pair of hiking shoes a few days before a trip. Ideally, they should walk at least 10 miles in new shoes *before* they set out on the trek. This may mean wearing them to school, the mall, or around home. Fortunately, wearing backpacking boots is now considered cool in places other than the wilderness.
- 2. Prevent blisters while on the trail.** Selecting the proper socks is the best way to prevent blisters. Trek members should have two types of socks. First, they should have some thin polypropylene socks to wear directly on the feet. Over these, they should wear a heavier pair of wool socks. This combination will help reduce the friction between socks and skin that is the leading cause of blisters.

Participants can wrap up by telling trek members: "Well, that's about it. Work on these three areas, and you should enjoy your trip much more. Also, other trek members are depending on you to be in shape. Although your trek leader will keep everyone together on the trail, it's pretty discouraging if the group is always waiting for someone who didn't take the time to get in shape."