



## Preparation for Alpine Ascents' Trekking in Ladakh

**Physical Conditioning for High Altitude Climbing** - Trekking requires cardiovascular endurance (via aerobic training), strength endurance (through strength conditioning), and hiking-specific training (via hiking with a pack). Being in strong physical shape is one of the most important aspects for success on a high altitude trek. During your training, you should be planning to progressively ramp up your speed, duration (time or mileage), and pack weight of weekly training hikes to give you hiking-specific conditioning that cannot be matched by any other sort of training.

**Cardiovascular conditioning** - Suggested activities include running, walking on an inclined treadmill, doing stair stepping or stepmill training, trail running, working on an elliptical machine, walking up and down hills, or participating in step aerobic classes. While biking, rowing and swimming are cardiovascular options for the off-season or earliest stages of your training, be sure as you get closer to your expedition that you include predominantly spinal-loading cardiovascular exercise such as any of the activities mentioned above.

When embarking on a cardiovascular training program for such a trek, be sure to include at least 3-4 sessions of 30 minutes of sustained activity at a moderate intensity, and build to 4-6 aerobic sessions of sustained effort for at least 45-60 minutes each. Be sure to include a 5-10 minute gentle warm-up before working at your target heart rate for the day (for most workouts, choose a level of exertion that allows you to connect a few words together in a phrase, but leaves you feeling comfortably tired at the end of the workout), and cool down with 5-10 minutes of appropriate stretching of the muscles you use most in your activity, including lower back, calves, hamstrings, hips and quadriceps.

**Strength conditioning** - Training with free weights, bands, a backpack, bodyweight exercises, or gym machines will help you build overall strength, particularly in the core (lower back and abdominals), upper back, and legs. Developing strength in your upper back and shoulders will help you with such tasks as carrying a pack and using trekking poles effectively. The calves, hips, quads, hamstrings and glutes are all involved in ascending and descending trekking routes, and strength endurance is required in all areas of the legs and hips.

Training primarily with free weights will give you the functional, trekking-specific strength that will help you most in the mountains. Free weight-training requires that you balance the weights as you would your own body, weighted with a pack, in three-dimensional space. When starting any strength conditioning program, complete two full-body strength workouts a week for 30-45 minutes each, focusing on compound exercises such as squats, lunges, step-ups, dips, pull-ups, rows, dead lifts, bench presses, pushups, and overhead presses. In the beginning phase of strength conditioning, your focus will be building a foundation for harder workouts; to that end, keep the weight light enough to concentrate on good form and complete 2 sets of each exercise for 12-15 repetitions. As you continue to train, you will shift focus to building strength, strength endurance, and mental and physical stamina; each phase varies the weight used, repetitions completed, number of sets, and rest interval. Most important in strength training is to be sure you maintain proper form at all times in order to prevent injury or strain.

**Mountaineering conditioning** - Hike steep outdoor trails, gradually increasing your pack weight with each outing until you are at your target trekking pack weight. A reasonable goal would be to ascend 3,500 feet carrying an average pack of 15-20 pounds in a 2 hour period, or roughly 1,750 vertical feet in an hour. A good training option for pack weight is to carry water in gallon containers or collapsible jugs, so you can dump water at the top as needed, to lighten the load for the descent. In early season, you might include hikes that gain up to 1,500' elevation over 6-8 miles round trip and carry a light day pack; each hike try adding a few pounds until you are comfortable with a 20# pack, then begin increasing the total elevation gain, speed, and mileage. When you can gain 3,500 feet with a 20# pack, start decreasing rest breaks and drop the last 5 pounds of pack weight so that you can work on increasing speed.

**Altitude training** - One training technique that is useful for high altitude climbing is to include interval training in your weekly program. To do this, find a steep hill or sets of stairs that will allow you to climb steadily for several minutes. Push as hard as you can while you go up, then recover coming down, and repeat for anywhere from 30-45 minutes. For hill walks, add weight to your pack on a regular basis until you can carry 20-25# the whole time. Since you will be spending a number of days above 11,000' elevation on this trek, include as many hikes or climbs above 8,000' as you can to see how your body responds.

*This training information was provided by BodyResults.com. To access more mountaineering-specific training articles, get a customized training program, or purchase training products please visit [www.BodyResults.com](http://www.BodyResults.com) or email [trainer@BodyResults.com](mailto:trainer@BodyResults.com). Special discounts for AAI customers can be found at [www.BodyResults.com/aa](http://www.BodyResults.com/aa).*