



Preparation for Alpine Ascents' Backpacking / Wilderness Navigation School

Physical Conditioning for Mountaineering - Backpacking requires cardiovascular endurance (via aerobic training), strength endurance (through strength conditioning), and backpacking-specific training (via hiking with a pack). Being in strong physical shape is one of the most important aspects for successful participation in a multi-day course. During your training, you should be planning to progressively ramp up your pack weight, duration (time or mileage), and speed of weekly training hikes to give you backpacking-specific conditioning that cannot be matched by any other sort of training.

Cardiovascular conditioning - Suggested activities include jogging, 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 also good cardiovascular options for the off-season or earliest stages of training, be sure as you get closer to your course that you include predominantly spinal-loading cardiovascular exercise such as any of the activities mentioned above.

When first beginning a cardiovascular training program, begin with three workouts (i.e. Monday, Wednesday and Friday) of 30 minutes of sustained activity at a moderate intensity, and build to 4-5 aerobic sessions of sustained effort for at least 45-60 minutes (taking perhaps Wednesday and Sunday as days off, for example.) 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 shoulders, and legs. Developing strength in your upper back and shoulders will help you with such tasks as carrying a heavy pack and using trekking poles. The calves, hips, quads, hamstrings and glutes are all involved in ascending and descending non-technical terrain, and strength endurance is required in all areas of the legs and hips.

Training primarily with free weights will give you the functional, backpacking-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.

Climbing conditioning - Hike steep outdoor trails, gradually increasing your pack weight with each outing until you are at your target class pack weight. If you live where it is relatively flat, go up and down stairs or train on an inclined treadmill or whatever terrain you have access to. A reasonable goal would be to ascend 2,500 feet carrying a pack of 50 pounds in a 2-3 hour period, or roughly 1,000 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.

Trekking poles (optional for Alpine Ascents courses) may be helpful for balance and for taking some stress off the knees in early season. However, you will want to be as comfortable with balance and footing as you can while freeing up your hands to get across streams or fallen logs.

In early season, you might start with a hike that gains up to 1200' elevation over 6 miles round trip and carry a 15# pack; each hike try adding 3-5 pounds until you are comfortable with a 30# pack, then begin increasing the total elevation gain and mileage. When you can gain 2,500 feet with a 30# pack, start decreasing rest breaks and increasing speed, and once you reach your target time, add the final weight until you can carry your 50# pack for the desired elevation gain and mileage.

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