## **Physical Conditioning**

## Start Now!

Even if there is not much time before the start of your course, or you are already in "great shape", you will benefit from some focused conditioning.

One of the most frequent comments we receive from graduates is, "I wish I had spent more time getting into shape." We are not trying to scare you. If you are reasonably fit, you should be able to complete a NOLS course. However, the more fit you can be, the more you will likely enjoy your experience.

## Frequency

Exercise five to six times per week. On your NOLS course, you will be active seven days per week, so exercising just a few times per week is not an adequate representation of what you'll be doing. Getting into the habit of almost daily exertion is important.

#### Time

As with frequency, it is wise to acknowledge what your course will be like and strive to build up to a similar level for time. You won't be running for eight hours a day on your course, but you will be active for many hours every day. Aim to make each workout last for 60 minutes and try to incorporate some longer sustained workouts. However, if you're not currently exercising at all, you should keep the sessions short.

#### Intensity

Exercise intensity is a subjective measure of how hard physical activity feels to you while you're doing it—your perceived exertion. Your perceived exertion may be different from what someone else feels doing the same exercise. For example, what feels like a hard run to you can feel like an easy workout to someone else. While your heart rate offers a more objective look at exercise intensity, measuring it requires you to repeatedly check your pulse or invest in a heart rate monitor. Fortunately, your perceived exertion correlates well with your heart rate. So, if you think you're working hard, your heart rate is likely elevated.

Initially, do most of your exercise at a low intensity, where you are able to have a conversation while exercising and be capable of sustaining the exercise for an hour or more. As you get closer to your course start, incorporate one or two higher intensity sessions per week.

#### Туре

It's never too soon to start developing your own judgment, so we won't actually tell you what to do. However, here are some general guidelines.

Short answer:

Just do something! Get up and get moving. Keep it simple so you're more likely to do it. Anything you do that elevates your heart rate and makes you work hard will be beneficial.

The longer answer:

Most of your exercise should be aerobic. Aerobic exercises should involve the large muscle groups and be continuous in nature. Hiking in hilly terrain, jogging, running, swimming, biking, and cross-country skiing are all great. You are working on building endurance. Think lower intensity levels but longer duration sessions. Try to mix it up and don't just do an activity you're already good at.

Some of your exercise should be devoted to building strength. Strength exercises may be kept simple with a variety of bodyweight exercises (e.g., push-ups, planks, lunges, burpees, squats, mountain climbers, etc.) You don't need to join a gym or hire a personal trainer. The internet is full of suggestions and videos on how to do exercises like these. Strength training is very helpful, but should not be your primary focus. One to two sessions per week is a good target.

## Flexibility and Balance

This is an underappreciated and often underdeveloped area. Flexibility and balance will be helpful to you no matter what NOLS course you participate in, whether it's backpacking, rock climbing, paddling, skiing, or something else. Time spent stretching or practicing yoga is time well spent.

#### Specificity

If you can only do one thing, this is it. Every activity uses different muscles, so mimicking the activity of your NOLS course will allow you to develop the specific muscles you'll need and will result in less muscular fatigue and soreness during the early part of your course. If you're going on a backpacking course, go for hikes and preferably in hilly terrain. Carry a light pack at first, and gradually increase your distance and pack weight. Some NOLS activities are harder to do on your own before your course. However, a bit of research into the muscle groups used for a particular activity will help point you toward the specific exercises to develop those muscles. Running hundreds of miles on flat terrain will certainly help your overall cardiovascular fitness, but it won't fully prepare you to carry a heavy pack in the mountains or paddle a kayak.

# The Bigger Picture

Improving your physical condition for your NOLS course is a wise thing to do. It also makes sense as a lifelong habit.

We want to encourage, not intimidate you. NOLS courses are strenuous, but they are within the limits of a person in good physical condition. Increasing your fitness will not guarantee you an easy time on your course, but will allow you to perform at a higher level, recover from the physical stress faster, focus on learning skills, and enjoy the natural beauty of the wilderness and the companionship of your fellow expedition members. Time to get going!

# SELECTING FOOTWEAR

Having good footwear is necessary for success. Please follow these instructions carefully when fitting hiking boots for your NOLS backpacking, mountaineering, or semester course. Before selecting a boot, read your equipment list carefully to find out what the needs of your course are, and whether renting boots from NOLS is an option. It may be helpful to show these instructions to a boot fitter wherever you decide to buy your boots.

Your boots are one of the most important pieces of equipment you will use during your course (unless, of course, you are taking a water-based course). For this reason, please wear your boots to your course or pack them or in your carry-on luggage to ensure they are not lost during travel.

#### It's All in the Fit

In our experience, we have found that a properly fitted boot is more important than a "broken in" boot. Much has been written about and many people still believe the myth that a break-in period is important. It's not as important as finding boots that fit.

If you are purchasing boots prior to your course, see the description of the recommended design and construction of boots below. If you have any questions about your boots, please call the NOLS Admission Office at (800) 710-NOLS.

- 1. It is best to shop for boots in the afternoon, since feet tend to swell during the day. Always fit your larger foot. The key to a proper fit is to determine the correct length. A boot that is too small (short) will cause more problems than one that is too large. Boots should fit comfortably with either two pairs of heavy wool socks or one pair of liner socks and one pair of heavy wool socks; both systems work fine. Cold climate hikers often prefer the two-wool-sock method. This sock combination provides warmth and cushioning while wicking moisture away from the skin and helping to reduce the chance of blisters.
- 2. Start with a boot a half size larger than your normal street shoe size and slip your foot in barefoot. Some boot shops may ask you to wear a thin liner sock. Slide your foot forward until your toes touch the front of the boot. As you lean forward slightly, there should be approximately 1/2" to 3/4" (about one finger width) between your heel and the back of the boot. If there is not, the boot is probably too small and you should try a half size larger.
- 3. Now try on the boots with your favorite combination of socks and lace the boots snugly. Your toes should be comfortable at the front of the boot with just a little bit of room to wiggle, and the arch of the boot should fit comfortably under your instep. Walk around for a few minutes. Your heels should feel snug in the back of the boot with just enough room to barely lift off the insole of the boot about 1/8"; no heel lift is too little and 1/4" or more is too much. The boot should feel comfortable with no obvious discomfort or pressure points.

- 4. In a properly fitted boot, your toes will not jam the front of the boot when walking downhill. To determine this, either kick your foot against a solid wall or, if you can, walk down a ramp to simulate hiking downhill. If your toes hit on the first kick, or if they jam the front of the boot while walking down the ramp, the boot is probably too small or not laced tightly enough. Your toes should "nudge" against the front of the boot on the third kick. It is important to realize that a properly fitted boot is going to feel slightly big. It is better to have a boot a bit large than too small.
- 5. Getting the proper fit takes time. Not all boots fit the same, so try different brands and models. Walk around for at least ten minutes. Think about your feet: Are they comfortable? Are there any pressure points? If comfort or pressure is unpleasant, try a different width, a different brand, or a half size larger. Remember, they are your feet and it's your comfort, so take your time!

## **Recommended Boots for Most Expedition Courses**

Medium-weight, off-trail backpacking or light mountaineering boots work best. They provide good support for off-trail hiking with heavy packs, and usually require less break-in time than heavyweight mountaineering boots.

We recommend finding a boot with a sole that provides good traction and support; durable uppers that will withstand hiking in sharp rocks and vegetation. Also, look for boots with full-grain leather and an over-the-ankle design; short boots or trail runners are not suitable for many of our courses. Be sure to read your equipment list carefully for information on these specific needs and whether boots are available for rent on your course.

#### **Recommended Boots for Mountaineering and Instructor Courses**

Heavyweight, off-trail mountaineering boots are what many people consider to be the "classic" mountaineering boot. These boots are typically constructed with a stiff, full-grain leather upper section, which is sewn onto a deeply indented Vibram® rubber sole. These boots are initially quite stiff with very little, if any, flex in the sole.

Most of these boots have a ridge or shelf on the sole to accept a crampon. Some of the newer designs in this category have a rubber rand around the base of the leather upper. Please note that certain mountaineering courses, such as those in Patagonia, use plastic boots. Be sure to read your equipment list carefully for information on these specific needs and whether boots are available for rent on your course.