

SEAPORT ORTHOPAEDIC ASSOCIATES ...BECAUSE YOU HAVE A CHOICE

10 Quick Tips to Get in Shape for Ski Season*

It is that time of year again. Snow is beginning to fall in the mountains. The ski areas are beginning to do preparations for the upcoming season. These 10 tips not only improve skiing ability, but also decreases the incidence of injury. The better physical condition a person is in, the better they will be able to avoid potentially catastrophic situations.

When performing these exercises, the most important thing is to make it fun. The best suggestion is to practice imagery techniques while performing them. Imagine yourself turning through soft powder, feel your edges, smell the crisp winter air. Otherwise, it can get to be a little bit too repetitive to perform the same exercises without a visual goal. Also, consider getting a training partner to further motivate you.

1. For cardiovascular conditioning, one of the better exercises is stationary, road, or mountain biking. It is not only aerobic training, but it works the leg muscles as well. To achieve the best results from a stationary bike, warm-up by spinning at about 50-70 RPM's for 5 minutes. Then sprint at over 90 RPM's for 30 seconds followed by spinning again for 1 minute. Repeat this sequence 2-5 times depending upon ability and finish with a 5 minute cool-down.
2. One exercise in particular that works on strength is a single leg, one third knee bend. Standing on one leg with the knee slightly bent and a chair on the opposite side to hold onto for support, go down and up on the single leg. The motion should be smooth and performed without a pause on the way up or down. The movement should be from slightly bent knee position to about 80 degrees of knee bend. In terms of duration, it is best if the exercise is performed until the leg begins to get fatigued-typically starting at about 30 sec. on each leg and working up to 2 minutes. Repetitions are good, but remember that there are not a set number of turns on the way down a slope.
3. Another good strengthening exercise is to walk backwards uphill or upstairs in a semi-squat position. This exercise really utilizes a lot of the same muscles as needed in skiing. The main thing to remember is that you will be making contact with the ground with your toes initially and stepping off with your heel. By maintaining good body position-trying to actually mimic your skiing stance-you will no doubt feel the burn in your legs.
4. Speed is another important component to skiing. A good exercise to increase speed is to go to your local gym or stadium and run the stadium steps. Make sure to really drive your knees in the air on the way up to increase the benefit. It is also important not to descend stiff-legged as this will predispose you to knee injury.
5. Agility is also imperative to good skiing. To improve agility-especially laterally (to the side), start by standing in a semi-squat position and step side-to-side, maintaining the squat position. Focus on your 'inside edge' to more closely simulate skiing. As strength and ability improves, leap from side-to-side keeping the inside foot off the ground and the focus of your weight on your outside foot/inside edge. Perform for 30 sec. and increase as able.
6. Flexibility is another important attribute to skiing to improve blood flow to the muscles. One stretch in particular is standing rotations. Stand with your feet a comfortable distance apart, your knees slightly bent and your arms crossed out in front of you. Starting with your head, slowly turn and look over one shoulder and continue with the rest of your body until you feel a good stretch throughout the back. Hold 5 seconds and repeat in the other direction. Perform 10-20 repetitions. For the legs, hamstring stretches are performed by putting your heel on a curb or a step, have your hips facing forward and keep your back straight. Bending through the hips, slowly lean forward until a stretch is felt in the back of the thigh. Hold 20 seconds and repeat 5 times on each leg. Quadriceps (thigh) stretches are as easy as bending your knee behind you, grasping your ankle and pulling towards you until it stretches in the thigh. Hold 20 seconds and repeat 5 times on each leg.
7. Power also plays a large role in skiing. One of the best types of exercise to work on power is plyometrics. Plyometrics are basically performing one movement pattern that puts a muscle in a state of stretch and followed immediately by an explosive move that contracts or shortens the same muscle. One great example is to stand on a curb or a step with your side to the sidewalk, jump down off the curb and then immediately back up. This should be done in sets of 10-30 seconds trying to do as many as possible in this time. Advanced skiers can perform the same exercise on one leg only.
8. Another example of power development for skiing is to jump up stadium steps with both feet together and with your hands clasped behind your head. On the way back down, take your hands down and jump down each step side-to-side as if leaping from the left side of the step with the left foot to the right side of the step with the right foot. The same principles apply as with running stadium steps-go up and down once and see how you feel. Progress as tolerated.

The last couple of exercises work on balance and proprioception. The reason that these have been saved for last is because that is when your body needs good balance the most, when it is fatigued. How many times have we questioned whether or not to take that last run of the day-our bodies are a little tired, we are not skiing as strong as we did earlier in the day. This is when people are most vulnerable to injury.

9. One balance exercise in particular is to stand on one leg with your knee slightly bent and your arms tight against your sides. Balance on your leg for 10-30 seconds and then drop your weight a little and hold for 10-30 more seconds. Repeat this sequence 3-4 times in varying positions of knee bend. To make it more challenging, do the same sequence with your eyes closed.
10. You can also perform this while standing on an uneven surface (i.e. a couch pillow). Again, vary the position of knee bend and as your ability improves, try closing your eyes. By doing these balance exercises at the end of your workout program, you will be working the very important intrinsic muscles at a time when they actually want to work the least.

Skiing is a high level activity that requires adequate training in order to be able to perform it most effectively. By following this list of exercises, you can be putting your best ski forward in an attempt to get the most that you can out of the sport. And remember, skiing is loads of fun, training should be the same.



You have a choice to

- **Have the best medical care possible**
- **See the correct specialist**
- **Be an educated patient**
- **Receive the best treatment available**

Ski and snowboard season is here, and you have the choice to avoid injury. Whatever you do...

DON'T PANIC!



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