



SKI STRONG FIT TIP :: SINGLE LEG SQUATS

Skiing makes winter worthwhile! Can you think of a better way to spend a winter day than on the mountain? Face it, if you live in an area where it snows and you're not playing in it then it's just a lot of work- scraping, shoveling, and blowing. Improving technique and having the right equipment can certainly improve your experience while skiing, and almost everyone can improve their performance by improving their skiing fitness. Your skiing fitness is a combination of your strength, flexibility, endurance, and balance.

One of the strengthening exercises we use for skiers is the single-leg squat. The single-leg squat builds strength and balance. Test your ability to do the single-leg squat by balancing on one foot and then slowly lowering yourself into a squatting position (**see figure 1**).

If you cannot perform the squat through full range or if you have to compensate, you can build strength by using one of the following techniques. Use the technique you can perform with good form (slow/stable movement keeping the knee in line with your toes).

One option to decrease the difficulty of the squat is to support the opposite leg on a bench and limit your movement to the range you can do correctly (**see figure 2**). As your strength increases you can increase your range of motion.

If this option is also too difficult, try using the assistance of tubing or weighted pulley (**see figure 3**). The tubing/weighted pulley assists with balance and allows you to assist with your arms as needed.

The single-leg squat is one of a number of exercises we recommend for training. An assessment of your current level of function is essential in targeting your program to meet your specific needs. In our practice we use the Functional Movement Assessment (or FMS) to assess an athlete's potential to enter or advance a training program. This program was developed by Gray Cook, PT and uses different tests that identify both areas of good function and those in need of improvement. Once a baseline level of function is established then specific exercises can be used to improve areas of weakness, decreased flexibility, balance, and asymmetry. Correction of these deficits will allow you to proceed with an exercise program with a decreased risk of injury and a higher likelihood of success. You can find a professional in your area that can administer the FMS and help design a program for you. Another option is to take a self-test. Chris Fellows has written an excellent book called Total Skiing in which, among other things, he walks you through a self-test and some corrective exercises based on your individual score.

If you have any questions, have pain which is preventing you from enjoying skiing, or are interested in more personal and specific programs, you can find your local Therapeutic Associates Physical Therapist at:

<http://www.therapeuticassociates.com/Locations>

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Figure 1



Figure 2



Figure 3