

Ready, set , ski

Skiing, especially downhill skiing, may be highly dependent on strong leg muscles but overall conditioning builds a routine that burns calories, increases metabolism and can target muscles important for skiing but not usually concentrated on. For example, the inner and outer thigh muscles don't get a lot of work hiking or biking. However, building and strengthening these muscles is important because they surround and stabilize the very, very important knee joint.

The most efficient and thorough strength workout is on Nautilus type exercise machines. "Nautilus" has become a generic term for any brand of exercise machine that isolates individual muscle groups. These machines are usually grouped so that moving from one machine to the next is a progression, or circuit of working related muscle groups.

These circuit machines have become very popular and you will surely find them if you belong to a YMCA, or most any modern health or fitness club. At first the machines may seem a little complicated or torturous looking, but be assured after a short while you will get the hang of bouncing from machine to machine for a some good strength training.

A Typical Circuit

Generically speaking, a circuit may typically be set up to work muscles in the following sequence.

- **Leg muscles** – A leg press for upper quads, a leg extension for lower quads, a leg curl for hamstrings, a calf press and hopefully a machine that works the inside and outside thigh muscles.
- **Upper body muscles** – A rowing or pulling motion for upper back, a chest muscle press and/or pulldown.
- **Arm muscles** – Curls for biceps, reverse curls for triceps and a flying motion for pecs and rear deltoids.
- **Core muscles** – an abdominal resistance and lower back resistance.

There should be, on average, a circuit of 12 to 15 machines and if you go efficiently through the routine, doing 10 to 12 repetitions, you will spend about 45 minutes to an hour for a good workout.

Strength Training = Weight Control

It may not sound logical, but it is a fact that a strength training routine will help maintain your desired weight and pants size. Using the circuit machines to keep strong somehow kicks in a faster metabolism that can burn calories for a long time after a workout. So, when you are pumping iron (in moderation) and it is 90 degrees outside, think snow.

Tips

- **Ask for a demonstration.** Every facility has a trained staff so be sure to ask for a Certified Trainer to demonstrate each machine in the circuit and watch you do a few repetitions to be sure you are doing the exercise correctly and getting the most out of each machine.
- **Don't overdo it.** You certainly don't need to bench press or leg press 5 times your weight for better skiing. Don't push yourself to the point of risking an injury.
- **Warm up first.** Do some gentle stretching to start, then maybe add 10 minutes or so of a cardio exercise to raise the heart rate and break a little sweat. Elliptical or stair machines can be an alternative to treadmills and saves the knees.
- **Keep a record.** Many facilities provide a file with sheets listing all the machines that you can use as a log. Again don't overdue it but if you progress comfortably with weight increases you can see it is all worthwhile.

Lower Body Strength

Muscular strength in your legs and hips is critical for skiing. This ties in a lot with your core strength and balance.

With increased leg strength you will be able to ski harder and longer without getting sore. You will also be able to absorb any forces more effectively when landing tricks and decrease your risk of knee and leg injuries.

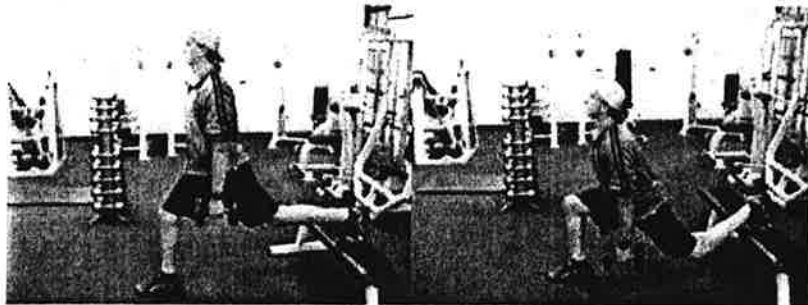
Important functional exercises for improving leg strength are squat & lunge variations, as well as jumping & landing exercises.

You also need to make sure that any leg strength program incorporates exercises that work on the hip extensors (hamstrings and glutes) so that your leg muscles remain balanced. This is important for both performance and injury prevention.

Here are some example exercises from our program *Total Skiing Fitness - Functional Training for Skiers*:

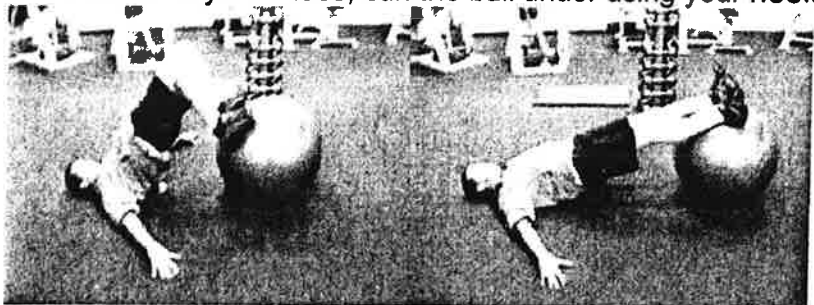
One-Leg Bench Squat

- Start in a lunge position but with your back foot elevated on a bench.
- Keeping your body in an upright position, lower your back knee towards the ground stopping just short of touching.
- Your front knee should end up directly over your ankle.
- Push back up to the start position.



Stability Ball Leg Curl

- Lie with your shoulders on the ground and your heels on the ball. Your hips should be elevated off the ground.
- Place your arms out to the side for support.
- Keeping your body straight from your shoulders to your knees, curl the ball under using your heels



then return to the start position.

Flexibility

Flexibility is often overlooked, but very underrated when it comes to skiing. Tight muscles will always increase the risk of injury for skiers. When you crash, your body often gets tossed around and contorted into all different positions. When you have a strong and flexible body, you are better equipped to take these beatings and remain injury free.

Stretching is also important after skiing as it aids in muscle recovery, meaning you can get back out on the snow feeling refreshed & energized, not tired & sore.

Here are some example exercises from our program *Total Skiing Fitness - Functional Training for Skiers*:

Hip Flexors

Hold for 20-30 seconds



Hamstrings

Hold for 20-30 seconds



Cardiovascular Endurance

In order to increase your cardiovascular fitness prior to hitting the snow, there are a number of different exercise methods you can use.

The fastest way to increase your endurance is by doing interval training. You can do interval training by running, riding, x-training, rowing etc.

Core Strength & Balance

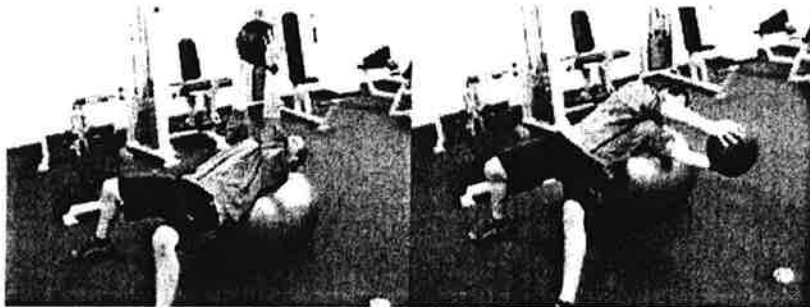
Core strength refers to the strength and stability around your abdominal, lower back and hip muscles. As skiing incorporates a lot of twisting and rotating, core strength plays a critical part in controlling the movements on your skis. The stronger your core, the easier it will be to perform more challenging manoeuvres and maintain good form. It will also help reduce the risk of injury.

Balance is also critical for skiers. If your balance is better then you will be able to land tricks easier and crash less.

Here are some example exercises from our program *Total Skiing Fitness - Functional Training for Skiers*:

Russian Twist

- Lie on a stability ball with your feet on the floor and knees at right angles.
- Hold a weight plate / medicine ball above your head and roll to the side until the tip of your shoulder is on the ball. Repeat on the other side.



Stability Ball Bridge

- Support your weight with your toes on the ground and your forearms on the ball, creating a straight bridge with your body.
- Draw in your abdominals toward your spine and hold this throughout the exercise for the required time.

