

DOWNHILL SKIING AND SNOWBOARDING

Preparing for an injury-free season



GUEST
CORNER

LIZE
LUBBE

THE ORIGIN OF DOWNHILL SKIING AND SNOWBOARDING AS RECREATIONAL ACTIVITIES

Skiing originated during the ice age when hunters used skis to cross frozen marshlands. Downhill (or alpine) skiing became a recreational activity in the 1800, and the Norwegian Sondre Norheim popularized skis with curved ends and bindings for downhill skiing. It was introduced as an Olympics sport in 1924.

Snowboarding, the baby of winter sports, was invented by an American, Sherman Poppen, an engineer in Michigan, when on Christmas Day 1965 he bound two skis together for his children's amusement to do "snow surfing", which his wife called "snurfing". Snowboarding became popular in the 1980s and was elevated to an Olympic sport in 1998.

THE PHYSICAL DEMANDS AND INJURIES OF DOWNHILL SKIING V. SNOWBOARDING

It is commonly believed that "skiing is easier to learn, but harder to master... whereas snowboarding is harder to learn, but easier to master". Skiing is about racing, while snowboarding is about tricks and maneuvers.

Both activities require good core and leg strength, stamina and balance, but the body's movement is different and different muscle groups are used.

- When skiing, your body faces forward, shifting from side to side using ski poles to guide with your balance, rhythm, and direction.

- When snowboarding, your feet are affixed on the same board. Feet and body are in line. Facing sideways, perpendicular to the direction of your movement, you use a twisting forward-and-back motion without any poles.

As a result, injuries to skiers and snowboarders are different because of the different dynamics during the snow movements. The knees are the big shock absorbers during skiing and therefore most vulnerable to injuries. Snowboarding injuries occur mostly in the upper extremities and ankles as the hands and arms are used to brace falls and the lower legs and ankles powered to maneuver turns and jumps.

STRENGTHENING EXERCISES TO PREVENT SKIING AND SNOWBOARDING INJURIES:

To prepare for your fun in the snow,

you should understand which muscles to use for downhill skiing and snowboarding, respectively. Doing strengthening and flexibility exercises before the snow season starts will reduce your risk of injuries.

Both skiers and snowboarders should work on cardio, core, glutes, legs, balance and flexibility:

Cardio: cycling as an aerobic/cardio exercise has less impact on your knees and is a good leg and cardio work out.

Core, glutes, and legs: the following is a good combination of dynamic, strengthening and balance exercises for the core, glutes, and legs (repeat each 10 to 20 times):

1. Hold with both hands onto a 5-to-10-pound kettle ball or dumbbell (depending on your strength and fitness level). Keep your feet shoulder-width apart, squat down. Keep your back flat and your knees angled over the middle three toes, but not surpassing your toes, as if sitting back onto a low chair. As you squat, move the weight forward away from your waist. Maintain a strong core, hold 5 deep breaths, and come upright by squeezing your glutes and quads tight. Shift your body to one leg and balance on one leg, bring the weight close into your body again. Progress by exploding from the squat position into a jump and landing into a squat again.

2. Planks. Start at an angle with your elbows on a table, keep your body level, core engaged, and shoulder-blades depressed down. Try to keep your heels down to add calf stretches. Hold 20sec to 1 min.

- Progress by doing a plank on the floor on your elbows or hands.

- Progress further by lifting one leg up in the air.

- Add side planks by leaning your full weight onto one elbow and ankles.

3. Step-ups. Stand with your right leg up on an 8 to 10" step. Bend your left leg up to your chest as you step up, rotate your upper body to your left knee and right elbow to your knee. Tighten your core, glutes, and quads. Hold for 5 seconds. Repeat to the other side

- Progress by kicking your leg straight up to add a hamstring stretch.

- Progress further by using a resistance

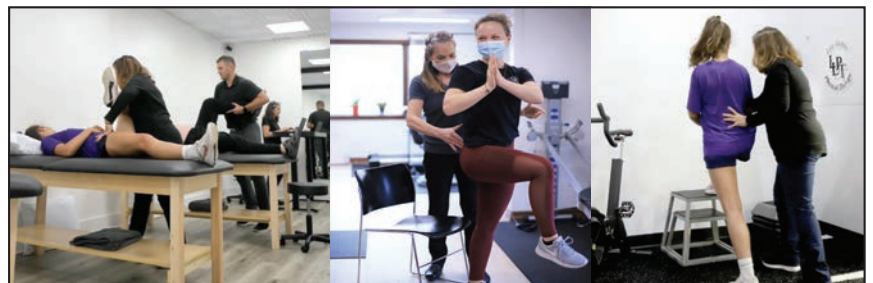
band around the leg you drive forward and holding weights in your hands.

Flexibility: dynamic leg flexibility stretches. Place your right leg up on a step with your foot flexed back against the step. Lean forward with your chest towards your knee until you feel a pull behind your thigh in your hamstrings. Hold for 10 seconds. Then lunge forward on your front leg, and stretch your back

leg with your heel down until you feel a pull in your hip and calf. Hold for 10 sec. Alternate your stretches 10 times, then switch legs.

For all the above suggested exercises, slowly build up your strength. If you have an existing injury or experience any discomfort, contact your health care provider or physical therapist for more specific guided exercises.

The leaves have fallen, the weather is colder, and our days are shorter. Winter is closing in. We await the fluffy white stuff for fun in the snow.



Lize Lubbe Physical Therapy (LLPT) has opened a PT Studio on the premises of Apex Fitness (at Orchard Square at Cross River)

to focus on sports-related physical therapy rehabilitation services.

Our PT Studio at Apex will serve the needs of high school and college athletes, runners, golfers and tennis players, devotees and "weekend warrior" work-out gym members, and non-gym members, and other sport enthusiasts to continue their fitness goals, free of pain and to restore full pain-free mobility after injury.

Our PT Studio will be staffed with physical therapists who specialize in working with athletes, young and old. Our team provides dedicated, personable hands-on physical therapy rehabilitation services to help you prevent injuries and, if injured, to accelerate your recovery.

The professional services of our team at the PT Studio include the following:

- A free walk-in basic sports-related injury screening of about 10 minutes
- Guidance on sport-specific warm-up and exercise programs
- Brief assessment and Kinesio taping
- Individualized full PT rehabilitation treatment programs to recover from injury or surgery with full access to all the equipment at Apex Fitness, to get you back practicing your chosen sport, pain-free

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