

Training cuts down on ski injuries

By Kyle Swanson

Ski season is around the corner. As an orthopedic surgeon, I see many skiing and snowboarding related injuries. Consider the following tips to avoid preventable injuries and actively prepare for the season.

Equipment assessment

Start with an equipment check. For skiers, one major cause of knee injuries is improper binding settings. If the binding is too tight, the boot does not disengage from the ski and can torque the knee. Have a professional who understands different bindings adjust the setting. Settings are based on each skier's level, height and weight, and type of skiing.



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Tune the skis or snowboard. Sharpen the edges and wax the bottoms for appropriate snow conditions.

Wear protective equipment. Inspect the helmet for cracks or defects that make the helmet ineffective in preventing head injuries and, if necessary, replace it. Wrist guards for snowboarders decrease wrist injuries and should be considered, especially for beginners. Also, wear weather appropriate clothing for the mountain's conditions.

Strengthening exercises

Both skiing and snowboarding require strength and endurance. The muscles in the legs, hips, and core take the most impact. Strengthen these areas six to eight weeks before the season starts to decrease injuries later. Skiers and snowboarders at any level should try these simple exercises.

Band walks. Target the gluteus medius, the stabilizing muscle on the side of the bum between the hip and top of the pelvis. Allow 15 feet of space. Wrap a mini-band, a workout rubber band, around the ankles. Stay low in a squat and take a large sideway step followed by a half step with the other foot. Repeat 20 sideway steps to the left for 15 feet then repeat to the right. Complete two sets in each direction.

Weighted Single Leg Box Squats. This comprehensive exercise uses the glutes, quads, hamstrings, calves, and core. Squat on one leg, as the other extends out, to a box or chair. Throughout, keep the knee facing forward, the chest out, and the chin up. Focus on pushing through the heel. Start with two sets of 10 repetitions on each leg.

Lateral Box Jumps. Work on balance and explosiveness. Start on one side of a stable box and jump up to the box and then jump down to the other side. Repeat jumping back to the other side. Go fast and maximize the number of repetitions in thirty seconds. Start with three sets for 30 seconds each.

Wall Sits. Help the quads, glutes and core. Rest back against a wall and flex knees about 60 degrees. Tighten the abdominal muscles and quads. Goal is to hold position for 60 seconds. Start with three sets of 60 seconds each.

Perform these exercises at least two times a week for six weeks. Incorporate them into a regular workout routine. Let's hope for snow and prepare now for an injury-free ski season.

Kyle Swanson is an orthopedic surgeon with Tahoe Orthopedics &

Sports Medicine.