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Well folks, the ski season is here with some good early snow falls down in Perisher. We encourage you to get down there and enjoy it as much as you can BUT safely !

Are you ready !?!?!?

Aging skiers (which covers most of us!) ask not what their knees can do for them, but what they can do for their knees! **Strength** and **Flexibility** are the characteristics of the well-preserved athlete, and strong, flexible collagen tissues are less likely to be injured while skiing.

Here are some tips in these two categories to help you get ready and prevent injury :

Strength is gained by year-round conditioning and the following knee exercises can be performed at home. Perform them daily, particularly in the lead-up to your trip :

1. One-Third Knee Bend. Begin your knee strengthening with the one-third knee bend exercise. Assume a standing position with your feet slightly wider than your shoulders, your back straight, and your knees bent approximately 30 degrees. Slowly bend your knees until your heels start to come off of the floor. Then return to the starting position of 30 degrees of extension.

Take about one second to move down and one second to move back up, always doing the knee bends slowly and smoothly. Eventually you should build up enough tolerance and strength to perform this exercise for two minutes. Try to do three sets with a resting period of one minute between each set.

2. The next exercise requires you to perform the one-third knee bend exercise with one leg only. Start in the same position, but with one leg lifted slightly off of the floor and the other flexed at a 30-degree angle. Flex your knee down until the heel begins to lift, then return to the starting position. The speed is the same: one second down and one second up. Duration should be one minute long with a total of three sets and a one minute rest between sets.

3. Finally, do one-third knee bends in a linebacker position. Start with your feet slightly wider than your shoulders, knees flexed at a 30-degree angle, and ankles flexed forward. Bend at the waist until your elbows are resting on your lower thighs and your back is horizontal. Flex your knees down to a 90-degree angle and back up to the starting position. This exercise should be slower than the previous knee bend exercises. Try to maintain duration until your quadriceps begins to burn or until you are fatigued.

Lower Extremity Stretching. One of the best ways to preserve lower extremity motion is to perform leg stretching exercises. The calf and Achilles stretch, hamstring stretch, and quadriceps stretch are simple but effective ways to help you maintain full extension and full flexion.

1. To perform the calf stretch, stand with one leg back and one leg forward with your hands resting flat against a wall at shoulder height (Figure 2). The heel of your back leg should be flat on the floor. Lower your body toward the wall with the back knee straight. Hold this position for 30 to 60 seconds.
2. For the Achilles stretch, assume the same position as in the calf stretch, but with your back knee bent. Lower your body toward the wall and hold the stretch for 30 to 60 seconds.
3. To do the hamstring stretch, place one heel up on a step or curb, keeping your knee straight. Slowly lean forward by bending at the hips, being sure to keep the back and upper pelvis level with one another until a stretch is felt. Hold for 30 to 60 seconds. A second method of the hamstring stretch is to lie flat on your back with one leg up against a wall (Figure 3). Gently flatten the back of your knee against the wall to stretch the back of your thigh, keeping the buttocks close to or touching the wall. Hold for 30 to 60 seconds.
4. To do the quadriceps stretch, stand in front of a chair and hold onto it with one hand for support. With the other hand, reach behind you to pull your ankle up, bringing the heel toward the buttock (Figure 4). Keep the flexed knee next to the supporting knee and maintain a straight back. Hold for 30 to 60 seconds.

Supplement these stretching exercises with cross-training to increase endurance and flexibility on the slopes. Swimming and bicycling tend to be kindest to the knee joints and provide for cardiovascular conditioning as well. Check with your physician before beginning any strenuous workout program.