

Physio for Skiing



Deborah Earl

– Deputy Physiotherapy Manager

Skiing is a hugely fun sport enjoyed by large numbers of people each season. A wide range of injuries occur during snow skiing.

The most common injuries tend to occur to the knee joint with the majority of those related to the Anterior Cruciate Ligament (ACL) and/or the Medial Collateral Ligament (MCL).



The ACL is the main stabiliser of the knee joint and prevents forward movement of the tibia on the femur whilst the MCL resists valgus forces at the knee. Both these ligaments undergo a high degree of pressure during the skiing motion.

Most skiers hit the slopes without proper preparation. However, several strategies can be used to help prevent injuries and perhaps the most important of these is to ensure adequate pre ski conditioning.

It is advisable for skiers to commence a specific conditioning regime a minimum of 6 weeks prior to embarking on a skiing holiday. This allows time to strengthen specific muscles in particular the quadriceps, hamstrings and gluteals. It is also a good idea to embark on an aerobic fitness regime at least 3-4 times per week in the lead up to the trip.

This could be running, cross trainer or swimming ideally performed at a relatively high intensity as skiing for several hours a day can be challenging for the aerobic system. It is a good idea to see a physiotherapist or fitness professional who can provide you with a specific programme however the following exercises would be beneficial to be done 3-4 times per week in the lead up to the ski holiday.

Typical exercises to include in a conditioning regime:

1. Single leg balance on a cushion. Standing on one leg on a wobble cushion or folded pillow, focus on staying as balanced as possible with the knee very slightly bent. Hold for 30 seconds and repeat 5 times on each leg. To make this more difficult you could throw a ball back and forth.



2. Sitting, holding a medicine ball or small weight close to the chest. With one leg slightly raised off the floor practice standing up and then sitting down slowly and in a controlled fashion. Repeat 2 sets of 15 on each leg.



3. Standing on one leg, with the knee slightly bent. Slowly tilt the upper body forwards as you take the other leg out behind you and then slowly control back to the starting position. Repeat for 2 sets of 15 on each leg.



4. Standing with the feet hip distance apart, bend the knees and then spring forwards so that you are jumping and then landing a small distance away. Focus on the landing control, the knees and hips should be bent and the knees should remain facing forwards at all times. Repeat for 10-12 repetitions, 2 sets. To make this harder you could practice jumping off 2 feet but landing on only 1 leg.

