

# Stay safe on the slopes

Before embarking on your alpine holiday, consider this advice regarding knee injury and snow safety from an experienced orthopaedic surgeon and skier.



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Common knee problems seen in younger patients include acute injuries such as ligament tears (especially the anterior cruciate ligament), meniscal tears and cartilage injury. These conditions may also affect active older athletes, whose joints may be showing signs of early degenerative change.

#### When to seek medical care

- When an acute injury does not resolve after RICE (rest, ice, compression, elevation)
- When symptoms such as pain, locking and instability (of any joint) interfere with everyday and sports activities
- When planning to take part in a new sport (e.g. skiing, snowboarding) or increase activity intensity (e.g. taking part in a half-marathon)

Old injuries should be screened and evaluated so as to prevent them from getting worse and to manage symptoms.

#### Assessment and treatment

The patient is assessed as a whole as they list their concerns regarding the injury. The severity of the condition is evaluated based on:

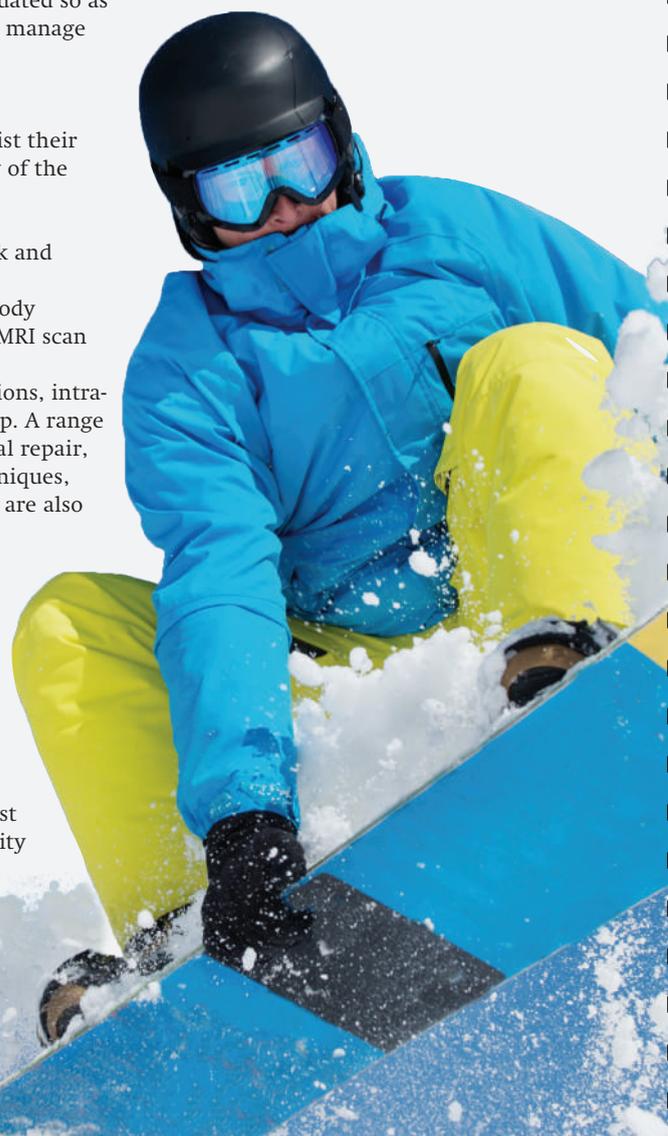
- A detailed history of the injury
- How it is affecting the patient's life, work and sporting activities
- A thorough clinical examination of the body
- Relevant imaging techniques such as an MRI scan

Non-surgical treatment options (medications, intra-articular injections, physiotherapy) can help. A range of surgical treatments — including meniscal repair, ligament and cartilage reconstruction techniques, which may be performed as day surgery — are also available depending on the type of injury.

#### Preventing knee injury

Here are ways to reduce the risk of injury:

- Seek advice if you are experiencing knee pain or symptoms that prevent you from playing sports and disrupt your quality of life
- Wear well-fitting footwear to maintain correct leg alignment and balance
- Before starting any exercise, spend at least 10 minutes to warm up (e.g. a low-intensity exercise followed by stretching)



- At the gym, opt for the rowing machine or cross-country skiing machine; both allow a strong workout with low impact to the knees
- Outside the gym, go swimming or cycling instead of running
- Adopt a sport-specific supervised training programme, which will help strengthen leg muscles and improve core stability
- Avoid sudden changes in exercise intensity; build up intensity and duration of exercise gradually
- Maintain a weight appropriate for your size and age. Extra weight places additional strain on your joints and increases your risk of developing osteoarthritis later in life
- Eat a healthy diet according to your physical activity level and demands of your body; the recommended daily amount is at least six portions of fruit and vegetable
- When starting a new sport or activity, always make sure you receive instructions on correct techniques and that your equipment is fitted by a professional

#### Preparing for the snow season

Ideally, you should start exercising six to eight weeks before your snow holiday, focusing on leg and core strength, flexibility and endurance. If you have pre-existing injuries, consult a doctor with a sports medicine background on a regimen that is suitable for you.

On the slopes, proper instruction and well-fitted equipment is vital. Beginners should enrol in classes to learn good techniques, including how to control their speed and to stop safely. Learning how to get on and off a lift safely is essential.

Equipment should be fitted by a professional. Skiers using incorrectly adjusted skis and bindings are more likely to suffer injury. An incorrect DIN setting (which controls how easily the bindings snap open when you fall) is dangerous. When hiring skis, know your weight and be honest about your ability. Wearing a helmet can greatly reduce the risk of head injuries. In terrain parks, wrist guards and pads for elbows and knees are recommended.

Most injuries occur at the end of the day, after a heavy meal and when fatigue sets in. Drink plenty of water throughout the day and stop to rest at regular intervals. It may be worth taking a break on the third day of your trip to allow tired muscles to recover. When unsupervised, stick to the gentler slopes or those that suit your ability. It is also important to follow safety signs and warnings.

Aim to stay in control at all times. Remember that people ahead of you have the right of way — when starting a downhill run or merging with another slope, you should check for oncoming uphill skiers and yield accordingly. Always stop in a safe place for you and others. Following this advice should ensure that you have a safe and enjoyable snow holiday. 

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