TRADE WINTER SPORTS INJURIES GUIDE
Winter Sports such as skiing and snowboarding, while legitimate Olympic sports, may sometimes fall under the umbrella of ‘extreme sports’.

So it goes without saying that injuries are bound to occur. In fact, for every 1000 people skiing and snowboarding on the slopes, there are typically two or three injuries per day that require medical treatment. Not only that but the individual risk of injury has been calculated as one injury per 300 days of skiing and snowboarding.

Skiers and snowboarders under the age of 18 have an incidence of injury that is three times that of those over 18. As in other sports, the incidence of injury is slightly higher in women than in men, although the injuries suffered by men tend to be more severe.

The majority of skiing and snowboarding injuries affect the lower limbs (primarily knee injuries), although the incidence of upper limb injury, particularly that of the wrist and thumb, is increasing due to the growth in popularity of snowboarding.

In order to help you stay injury free and enjoy your winter sports trip to the full, we’re going to highlight the five most common winter sports injuries. We’ll also provide some technical info and recommend something to help out.

So join us…

Things to remember when buying a brace or support:

• **What type do I need?** Winter sports appropriate braces come in different shapes and sizes, but can usually be categorised in to four types, sleeves, supports, stabilisers and hinges. Sleeves easily slip over the leg or arm, while supports are adjustable and usually wrap around the knee. Stabilisers offer advanced support by featuring steel springs either side of the knee. While hinged knee braces allow the knee to move in a natural motion while offering the most support.

• **What style do I want?** There are two standard styles of braces, the slip-on or the wraparound. Slip-ons are used by putting your foot through the brace and pulling up the leg. While wraparound braces, of course, wrap around and can usually be adjusted by straps made of such material as Velcro.

• **What size do I need?** This all depends on which brace or support you choose. Typically, each will feature a size guide, but may require some DIY measuring for products such as knee braces. If you are between sizes, it’s often recommended you go for the larger size, but this may vary from product to product.
KNEE LIGAMENT INJURY

What is it?

Injuries to the knee joint account for around one third of all skiing injuries. The Medial Collateral Ligament (MCL) of the knee has always been the most common knee injury, as a twist of the knee often leads to a minor MCL sprain. Also while the overall percentage of knee injuries has remained constant over the past 25 years, there has been a dramatic rise in the number of knee ligament ruptures, particularly ruptures of the Anterior Cruciate Ligament (ACL).

There are several reasons for the rise in ACL injuries during skiing. Diagnostic investigations such as MRI have meant that the ability to diagnose ACL injuries has improved over the years. Also the improvements in ski boots and bindings that have helped reduce ankle and shin injuries appear to have contributed to the increase in ACL injuries. The forces that had previously affected the ankle and shin are now dissipated to the knee joint, with the ACL commonly injured. Bindings are designed to reduce shin fractures, and their release mechanisms are not fast enough to protect the knee from a sudden twisting injury.

How can you prevent it?

You can wear a knee brace to protect your knees. Knee braces provide around 30% more resistance to forces applied to the knee ligaments as well as offering added support to previously injured knees.

We recommend something from our range of Donjoy Knee Braces which you'll find on our site for knee injury prevention.

Treatment

If you suffer a knee ligament injury the best course of action is to seek the opinion of an orthopaedic specialist or physiotherapist. During the acute stage (the first 48-72 hours) of the more severe knee ligament injuries, exact diagnosis is very difficult due to the gross swelling around the joint.

For your rehab period, try the product below:

- The Donjoy 4Titude (Short) Knee Brace is ideal for rehabilitation of all knee ligament and cartilage injuries for active, sedentary and adolescent patients. Also ideal for support when returning to skiing and sports.

- It has a short below knee section which means it fits comfortably above ski boots. The Donjoy 4Titude Knee Brace features the Donjoy Four Points of Leverage system which will make your knee joint feel stable by providing control over extension and flexion of the knee joint.

- With a low profile, lightweight design, this knee brace has mouldable cuffs for a custom fit and removable thermal-formed liners and strap pads for unbelievable comfort.
SNOWBOARDERS ANKLE

What is it?

Such is the increase in people participating in snowboarding that they have their very own limb injury. It's a fracture of the outerside of the Talus bone of the ankle, often as a result of a high energy ankle sprain. These injuries can be difficult to detect as they don’t always show up on x-ray films. If there is persistent ankle pain then a CT scan may be required to confirm the injury.

How can you prevent it?

You can use one of our wobble boards to enhance your balance and proprioception. Enhanced proprioception allows you to recover when you feel your ankle going over. You can also wear a sports ankle brace and high cut shoes, this acts as a physical restraint and helps prevent going over on the ankle.

Treatment

The first thing to do is seek medical help. Once a fracture of the Talus bone has been confirmed, the medical management is dependent on the position of the fracture fragments. Small fractures where the fragments are not displaced tend to recover well with conservative treatment and a period of immobilisation while more complicated fractures often require surgical fixation with a screw.

For an immobilisation option, try the product across:

- Providing a hygienic alternative to the traditional fixed plaster cast, the PhysioRoom.com Air Fracture Walker has been proven to effectively heal fractures and manage swelling.

- Featuring a removable panel for easier application, this lightweight yet durable Air Walking Boot can be removed for washing, and to improve rehabilitation which reduces injury healing time to prevent muscle wastage and ankle stiffness.

- Designed to fit the left or right foot, the Air Fracture Walker features a soft dense foam with a breathable liner to keep you dry and comfortable. Offering superior impact resistance, the Air Walking Boot provides the ultimate in comfort, protection and treatment for a variety of lower leg conditions. To achieve the desired compression and a custom fit, the air can easily be adjusted.
SKIER’S THUMB

What is it?
A common upper limb injury in skiing is ‘skier’s thumb’ which accounts for around 10% of all skiing injuries. Skier’s thumb is usually caused during a fall when the ski pole is held in the hand, catches in the snow and acts as a lever against the inside of the base of the thumb. This action overextends the thumb and causes damage to the Ulnar collateral ligament at the base of the thumb. More often than not there is a sprain of the ligament, but on occasion there may be a complete rupture.

How can you prevent it?
Unless you are in deep powder snow and fear losing your ski poles, it’s best not to put your hands inside the ski pole loop when skiing, as this greatly increases the risk of sustaining a skier’s thumb sprain in the event of a fall.

Treatment
In the immediate period following damage to the Ulnar collateral ligament of the thumb, ice packs and compression are the best treatments. Non-Steroidal Anti Inflammatory Drugs (NSAIDs) can be prescribed by a doctor to help relieve inflammation and pain.

Sprains tend to resolve in around four to six weeks and can be aided by physiotherapy treatment. Ultrasound can be effective in the early stages, then massage and mobilisation can aid ligament repair and help restore function.

For a thumb stabiliser during your rehab period, check out the product across:

- The Aircast A2 Wrist Brace with Thumb Spica is a lightweight and adaptable brace for the wrist and thumb. It caters for a range of injuries by incorporating removable stabilisers, which you can add or remove depending on the type of support you require.

- This adjustability adds to the overall comfort of the brace, which is made from a fully-washable Breath-O-Prene fabric to help keep the wrist dry and ventilated.

- The dual stabilisers - one which fits onto the inside of your wrist and one which fits onto the outside - help keep the wrist secure and supported. The thumb spica, meanwhile, provides that extra stability to the thumb. This support is vital when recovering from a broken bone, as keeping the area immobile will speed up the healing process.
What is it?

Falls are of course a common occurrence in snowboarding. The natural response when falling is obviously to stretch out a hand to break the fall, and it goes without saying falls are quite prevalent among beginners. For this reason, Scaphoid fractures and Colles fractures of the wrist are a relatively common feature, with around 100,000 wrist fractures worldwide among snowboarders each year.

How can you prevent it?

Snowboarders should wear wrist guards as they significantly reduce the incidence of wrist injuries during falls.

Treatment

If a fracture of the wrist is suspected, proceed to an accident and emergency department without delay. If a fracture is confirmed by an x-ray, the initial treatment will be supervised by the doctor in the emergency department.

If the two fragments of broken bone are shown to be close together, and well aligned, the treatment is simply to put the forearm and wrist in to a plaster of paris for a period of 6 weeks. Residual pain and stiffness is common following wrist fractures. A wrist brace can be helpful to take the strain off the wrist.

For something to help you rebuild strength after a wrist fracture, try the across product:

- The Neo G Hand Rehab Therapy Silicone Balls are made from premium quality silicone, the Neo G hand rehab therapy ball helps to promote progressive strengthening, increased function, grip and mobility in the hand, wrist and forearm.

- The therapy ball helps to strengthen the hand, fingers and forearm muscles to increase function and range of movement and flexibility. It can be used for arthritis sufferers and as a stress ball.

- Available in soft, medium and firm resistances, the Neo G Hand Therapy balls are registered with Medicines and Healthcare products Regulatory Agency, UK, as a Class 1 Medical Device.
HEAD AND SPINAL INJURIES

What is it?
Spinal and head injuries account for less than 10% of skiing injuries. These injuries are usually due to a fall or collision (be it with trees, lift towers or other skiers) or due to chair lift accidents. Head and spine injuries tend to occur more often in confident skiers as they are more likely to be going at higher speeds, a factor which is predominant in head and spinal injuries.

How can you prevent it?
The research evidence on the effectiveness of helmets in the reduction of injury is mixed. During low velocity collisions in adults they have been shown to reduce the incidence of minor concussions. However, at higher velocities their use has not been so effective, as the energy and trauma is often transmitted to the spine, where injuries are just as catastrophic.

This is particularly true in children who don’t have the musculature to support the weight of a helmet and the strain on the neck becomes too great.

Treatment
All head injuries should be assessed by a doctor. Patients with a seemingly mild head injury can deteriorate rapidly so it is important that they get swift medical attention and are monitored closely for the 48 hours that follow.

For some neck support while you rehab from your injury, try the across product:

- The PhysioRoom.com neck support is a semi-rigid collar that will limit the movement of your neck and assist the head and chin after injury or trauma.

- This padded brace is comfortable and simple to apply providing improved stability to help ease the associated pain caused by whiplash, neck muscle spasm and a stiff neck.

- The PhysioRoom.com Neck Collar can be easily secured with the adjustable Velcro strapping, while the foam body will conform neatly to the contours of your neck and chin for a snug fit providing a practical solution to neck pain management. The collar can be worn over extended periods and is suitable for night-time application.
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