

## **Common Running Injuries**

**We are delighted that you have decided to run in the next Bath Half Marathon and very much hope that you have good running shoes, undertake a regular training programme and don't suffer from any common running injuries. However, if you do have a problem, seek professional medical help if the information below, courtesy of [www.physioroom.com](http://www.physioroom.com) is not appropriate to your needs.**

### **BLISTERS**

#### **What are blisters?**

Up to 40% of marathon runners suffer from blisters. The heels, toes and balls of the feet are the most commonly affected areas. They are caused by prolonged friction that produces a shearing force in between the layers of skin. As the layers of skin separate they fill with blood or fluid. This results in a painful blister.

#### **What can you do to prevent them?**

Make sure you have properly fitting running shoes and break these in gradually. Never wear new running shoes for a race or a long run.

Moisture wicking blister socks that have two layers are excellent at preventing blisters. The inner layer stays with the foot whilst the outer layer moves with the shoe, thus eliminating friction on the skin and reducing wear. The unique mixture of fibres helps to keep the foot dry and blister free.

Friction can also be prevented with the use of an Anti Blister Stick. The lubricant in the Anti Blister Stick reduces the friction that leads to blisters.

#### **What should you do if you suffer from blisters?**

The qualified medical staff at running events can clean the blister thoroughly before lancing it with a sterile implement. This can relieve the pressure and pain. Once a blister has been lanced it is imperative to keep the area meticulously clean in order to prevent infection. As ever, prevention is better than cure.

Blister plasters absorb a wound's fluids and maintain an important natural moisture balance. This makes them ideal for healing. Skin cells are able to move across the healing blister easily, without drying out and developing into a scab, to help form new, smooth tissue sooner.

## **RUNNER'S KNEE**

### **What is Runner's Knee?**

IlioTibial Band Friction Syndrome is so prevalent in runners that it is commonly known as 'Runner's knee'. It affects up to 10% of all runners at some stage.

Typically there is pain located on the outside of the knee joint. This pain may radiate up the thigh or down the outside of the shin and is exacerbated by running. Usually, the knee pain from Runner's Knee is only present during activity and settles when the person rests. However, in some cases it can also be extremely uncomfortable going up or down stairs.

### **What can you do to prevent it?**

Runner's Knee is an overuse condition that is aggravated by excessive training. Make sure that you gradually increase your training load – there should be no sudden increases in workload as this can overload the tissues. Tightness in the IlioTibial Band has been implicated so stretching the Gluteus Medius and Tensor Fascia Latae muscles may be helpful as a preventative measure.

Similarly increased pronation of the foot (uncontrolled lowering of the arch) can lead to increased tension in the IlioTibial Band when running. Motion controlling running shoes that prevent excessive pronation can be effective in reducing this cause of increased IlioTibial Band tension. Alternatively an insole that supports the arch of the foot can help to control excessive pronation.

### **What should you do if you suffer from Runner's Knee?**

Because Runner's Knee is inflammatory in nature, then ice packs and Non Steroidal Anti Inflammatory medication (NSAIDs) prescribed by your doctor are effective in the early

stages.

Physiotherapy treatment is very effective in alleviating Runner's Knee. Once the inflammatory soreness has been resolved a physiotherapist will assess posture and lower limb alignment in order to give specific stretching and strengthening exercises to treat the underlying cause of the problem.

## **SHIN SPLINTS**

### **What is Shin Splints?**

Shin Splints is a common term for pain in the shin region. It can be a misleading term and most sports medicine professionals try to avoid using it. This is because shin pain and 'Shin Splints' can be due to several different conditions. One of the most common shin conditions that gets labelled 'Shin Splints' is Medial Tibial Stress Syndrome.

Medial Tibial Stress Syndrome is fairly common in runners. People suffering from Medial Tibial Stress Syndrome will feel shin pain on the inner side of the shin during exercise and also at rest. It is important to consult a sports doctor who can distinguish Medial Tibial Stress Syndrome from other causes of shin pain ('Shin Splints') such as Compartment Syndrome and stress fracture.

### **What can you do to prevent it?**

The amount of stress being placed on the shins can be minimised by wearing good quality, supportive running shoes with shock absorbing insoles. It is possible that some cases of Medial Tibial Stress Syndrome could be prevented by correcting problems such as flat feet (excessive pronation) with arch supports.

### **What should you do if you suffer from Shin Splints?**

Most patients respond well to treatment with a chartered physiotherapist. This involves rest, strengthening and stretching exercises, followed by a gradual return to running after symptoms subside. In order to help prevent recurrence of the condition, a bio-mechanical analysis (an analysis of posture at rest and during walking and running) is very useful.

For example, a common cause of the condition is excessive pronation during running. This would be identified during bio-mechanical analysis and corrected with arch supporting insoles.

Many people find that a Cho Pat Shin Splint Compression Sleeve is useful in alleviating shin pain. The elasticated fabric provides gentle support to the entire shin and calf region. The upper and lower Velcro fasteners apply additional compression across the muscles and tendons of the lower leg, reducing stress on the inside of the shin.

## **PLANTER FASCIITIS**

### **What is Plantar Fasciitis?**

Plantar fasciitis refers to inflammation of the Plantar fascia (a fibrous sheath that runs most of the length of the sole of the foot), usually at the point where it attaches to the heel bone. It is a common cause of heel pain in runners. Pain is common over the inside of the heel and usually radiates down the inside of the sole of the foot. The pain usually occurs with activity and is also typically present in the morning when taking the first steps of the day.

### **What can you do to prevent it?**

Inadequate footwear is often implicated in Plantar fasciitis. Shoes should provide adequate support for the foot during running. Unsuitable footwear can increase strain of the Plantar fascia and lead to the development of inflammation.

There may be a problem with the biomechanics of the foot, which contributes to the problem. The usual findings are a foot that 'over pronates', where the inner arch of the foot rolls over too much during walking and running. This can lead to tightness in the Achilles tendon and recent research has suggested that a tight Achilles tendon can increase strain on the Plantar fascia.

Insoles that support the arch on the inner side of the foot can be helpful for limiting excessive pronation and relieving stress on the Plantar fascia and Achilles tendon.

## **What should you do if you suffer from Plantar Fasciitis?**

Plantar fasciitis settles with conservative treatment in 95% of cases. Conservative treatment, such as physiotherapy, aims to reduce local inflammation and address any biomechanical problems. While the Plantar fascia is still painful it may be treated with ice packs (never apply ice directly to the skin) and anti-inflammatory drugs prescribed by a doctor. Once the pain has subsided, stretching the Plantar fascia (by pulling the toes towards the shin) is effective in encouraging the tissue to regain its normal alignment.

The Aircast AirHeel™ can be very effective in relieving heel pain due to Plantar Fasciitis. By applying compression to the heel and the arch of the foot, the AirHeel™ relieves strain on the area under the heel that is commonly affected by Plantar Fasciitis. This can give instant relief to those suffering with Plantar Fasciitis.

## **ACHILLES TENDINOPATHY**

### **What is Achilles Tendinopathy?**

Commonly known as Achilles Tendonitis, Achilles Tendinopathy is usually characterised by degeneration of the tendon (the Achilles tendon is situated above the heel and forms the lower part of the calf muscles). The degeneration means that the tendon does not possess its normal tensile strength and may be liable to rupture with continued sporting activity.

Achilles Tendinopathy usually comes on gradually, and is more common in those aged over 40. There is pain, which is worsened by activity, and the focal areas of degeneration feel tender to touch. Often the tendon feels very stiff first thing in the morning. The affected tendon may appear thickened in comparison to the unaffected side.

### **What can you do to prevent it?**

Training errors should be avoided. The intensity, duration and frequency of training sessions should be carefully monitored and gradually progressed. Sudden increases in these variables should be avoided. Muscle strength and flexibility should be maintained through regular strengthening and stretching sessions.

It is thought that an 'over pronated' foot position (where the foot rolls inwards) can place excessive strain on the Achilles tendon and lead to Achilles Tendinopathy. In this case it is often useful to consult a chartered physiotherapist, who can carry out a biomechanical assessment (an assessment of posture at rest and during walking and running). If there is excessive pronation it is usually effective to insert an arch supporting insole that can help to correct the problem.

### **What should you do if you suffer from Achilles Tendinopathy?**

The key to recovering from Achilles Tendinopathy is in trying to elicit a healing response without overloading the tendon. This requires rest from sporting activities for up to three months. This is because the collagen tissue, which the body produces to repair the tissue damage, takes three months to lay down and mature.

Published research has suggested that recovery is optimised by using a programme that uses what is called 'eccentric muscle work'. Eccentric muscle work refers to a muscle that is lengthening while contracting - a contraction that occurs during movements such as landing and decelerating. Maximum tension is generated in the muscle during the eccentric contraction and this causes the tendon to adapt and get stronger.

The Aircast AirHeel™ can be very effective in relieving heel pain due to Achilles Tendinopathy. By applying compression to the heel and the arch of the foot, the AirHeel™ relieves strain on the Achilles tendon. This can give rapid relief to those suffering with Achilles Tendinopathy.